Division of Environmental Remediation

Site Name: Old Upper Mountain Road  
Site Number: 932112  
Contract Number: D012107  
Location: Lockport, Niagara County, New York

Contract Documents

EA Engineering, P.C. and Its Affiliate EA Science and Technology

June 2022

New York State Department of Environmental Conservation  
KATHY HOCHUL, Governor  
BASIL SEGGOS, Commissioner
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SECTION I

Advertisement and Notice to Bidders

New York State Department of Environmental Conservation
Division of Environmental Remediation

Project Name: Old Upper Mountain Road – Environmental Remediation,
Site No. 932112

Sealed bids for the Old Upper Mountain Road site – Environmental Remediation ("project") will be received by the New York State Department of Environmental Conservation (NYSDEC), Division of Management and Budget Services, Bureau of Expenditures [625 Broadway, 10th Floor, Albany, New York, 12233-5027], until the time of 1:00 PM, Eastern Standard Time, on the date of July 18, 2022. The bids will be publicly opened and read aloud at the above time and date. Additionally, a live stream of the bid opening may be made available via teleconference; details for that call-in, if applicable, will be provided in future correspondence with prospective bidders. Telegraphic or other electronically transferred bids will not be accepted.

The project involves remediation and restoration at the Old Upper Mountain Road site, located within the Town and City of Lockport, Niagara County, New York. These activities include, but are not necessarily limited to: site preparation and clearing; excavation, amendment, and consolidation of impacted sediment, floodplain soil, waste material, and debris located at the former dump site within OU-1 and Gulf Creek and its associated floodplain within OU-2; material dewatering and water treatment and management prior to discharge across the site; stream bank stabilization and installation of passive seep treatment infrastructure along a portion of Gulf Creek within OU-2; and grading and clean soil cap placement within OU-3. Additionally, site restoration activities will include, but are not necessarily limited to, installation of a modified Part 360 cap in the expanded footprint of OU-1 and within the existing footprint of the Lockport City Landfill and material and habitat enhancement feature placement and grading to facilitate reestablishment of a functional stream and wetland system in OU-2. All activities are to be performed in accordance with the specified design requirements included herein.

The estimated range for this work is: $20,000,000 to $30,000,000.

Contract Documents are available in electronic format at no charge. Electronic copies of non-biddable Contract Document drawings, specifications, proposal forms, addenda, and a separate Limited Site Data Document may be downloaded from the Department website http://www.dec.ny.gov/chemical/59233.html. Hard copies (fees apply) and/or FTP link to biddable Contract Documents are available upon request from the Division of Environmental Remediation, 12th Floor, 625 Broadway, Albany, New York, 12233-7017, Attn: Brianna Scharf at (518) 402-5987 or Brianna.Scharf@dec.ny.gov.
Proposals will be accepted only from bidders who attend the Pre-Bid Conference. All proposals must be made on the official proposal form(s) and enclosed in the envelope which will be provided by the Department at the Pre-Bid Conference. Each proposal must be accompanied by a deposit or a bid bond in the amount of five-percent (5%) of Proposers bid amount. All Bidders must attend the Pre-Bid Conference to receive special requirements and/or instruction for the Contract. The Pre-Bid Conference will be held on **June 22, 2022** at the Old Upper Mountain Road site and will start at the southeastern end of Old Upper Mountain Road located at **5729 Old Upper Mountain Road, Lockport, New York**, starting at **10:00 AM**, Eastern Standard Time. Attendees should be prepared to traverse challenging terrain to observe the project site. Attendees should also be aware of the presence of ticks and other biting insects in and around the project site.

Attendees are encouraged to review updated guidance and restrictions associated with COVID-19 from local, state, and federal resources. To avoid or reduce the potential spread of Coronavirus, we ask that you respect the following access restrictions when sending representatives to the Pre-Bid Conference:

- Do NOT travel to this site if you are experiencing flu-like symptoms: diarrhea, fever or feeling feverish/chills, cough, sore throat, runny or stuffy nose, muscle or body aches, headaches, fatigue (tiredness);

- Do NOT travel to this site if you have been in direct contact with a person diagnosed with COVID-19 or suspected of having COVID-19 and are under NYS Department of Health mandated isolation as a result of that contact.

Bidders should make every effort to send only two (2) representatives to participate in the Pre-Bid Conference.

**ATTENDANCE IS MANDATORY AS A CONDITION OF BIDDING.**

Minority-, Women-, and Service-Disabled Veteran-owned businesses are encouraged to submit bids in response to this solicitation. The New York State Department of Environmental Conservation is an Equal Opportunity/Affirmative Action Employer.

The Contractor shall adhere to the New York State Department of Environmental Conservation Guidelines Regarding Permissible Contacts During a Procurement and the Prohibition of Inappropriate Lobbying Influence. For the purpose of this Notice to Bidders, the Acting Director of the Division of Environmental Remediation, Susan Edwards, 12th Floor, 625 Broadway, Albany, New York, 12233-7011, shall be the Department's Designated Representative. Any questions, however, shall be directed to Brianna Scharf, the Department’s Project Manager and Designated Contact, at (518) 402-5987 or **Brianna.Scharf@dec.ny.gov**.
Bidders may receive announcements of procurement opportunities by signing up for the NYSDEC – DER electronic mailing list ("listserv") at –
https://public.govdelivery.com/accounts/NYSDEC/subscriber/new

Basil Seggos,
Commissioner
SECTION II

Terms and Definitions

Wherever used in the Contract Documents, the following terms (or pronouns in place of terms) have the meanings indicated which are applicable to both the singular and plural forms thereof:

Addenda - Written or graphic instruments issued prior to the date for opening of Bids which interpret or modify the Contract Documents by way of changes, clarifications, corrections, or the provision of additional information.

Administrative Agreement - A written explanation of the Contract Documents, signed by Department, Engineer and Contractor on or after the Effective Date of the Agreement and dealing with procedural or administrative aspects of the Contract Documents which do not change the contract price.

Agreement - The written agreement between Department and Contractor covering the Work to be performed; other Contract Documents are attached to Section VI - Agreement and made a part thereof as provided therein.

Application for Payment – Billing invoice in the form required by Department on which Contractor must request progress or final payments and which is to include such supporting documentation as is required by the Contract Documents.

As-Built Documents - documents conforming to the requirements outlined in Section VIII - General Conditions, Article 5.19.

Bid - The written offer or proposal of the Bidder, submitted pursuant to Article 5 of Section III of the Bidding Documents on the form(s) provided.

Bidder - The person, partnership, corporation, joint venture or other authorized combination thereof, who has submitted a Bid. Bidder may also be referred to as “Offerer” or “Proposer” throughout the Bidding Documents and Contract Documents.

Bid Security - The security designated in the Bidding Documents to be furnished by the Bidder as guarantee that he/she will enter into a Contract with Department for the performance of the Work, if the Work involved in the Bid is awarded to that Bidder.

Bidding Documents - The Advertisement and Notice to Bidders, Bidding Information and Requirements, the Bid Forms and Attachments, and the proposed Contract Documents, including all Addenda issued prior to receipt of Bids.

Bonds - Instruments of security furnished by Contractor and its surety in accordance with the Contract Documents. This refers to the labor and material payment Bond,
performance Bond and those other instruments of security required by the Contract Documents.

**Change Order** - A document prepared and recommended by Engineer, which is reviewed by Department and has been signed by Contractor and Department and approved by Comptroller. It authorizes an addition, deletion or revision in the Work, or an adjustment in Contract Price or Contract Time, or any combination thereof, issued on or after the Effective Date of the Agreement.

**Claim** – Contractor’s demand or assertion seeking as a matter of right, adjustment, interpretation, additional money, extension of time or other relief with respect to terms of the Contract.

**Commissioner** – The Commissioner of the New York State Department of Environmental Conservation.

**Comptroller** - The Comptroller of the Office of the New York State Comptroller.

**Contract Documents** - The Agreement, Addenda, Contractor's Bid, including documentation accompanying the Bid and any post-Bid documentation submitted prior to the Notice of Award, all bid forms and attachments required by Section V, the General Conditions, the Supplementary Conditions, the Standard Specifications, the Supplementary Specifications, Appendix A, Appendix B, Appendix C, Appendix D, Measurement for Payment, Advertisement, Terms and Definitions, Bidding Information and Requirements, Supplementary Bid Information and Requirements, and the Drawings, together with all amendments, modifications and supplements issued pursuant to paragraphs 2.4 and 2.5 of Article 2 of the General Conditions on or after the Effective Date of the Agreement.

**Contract Price** - The money payable by Department to Contractor under the Contract Documents.

**Contract Time** - The number of days permitted by the Agreement for completion of Work. This number may be stated, or, implied by a requirement that all work be completed by a certain date.

**Contractor** - The person, partnership, corporation, joint venture, or other allowable combination thereof, who has entered into the Contract with Department for the Work. The term "Contractor" means Contractor or its authorized representative.

**Correction Period** - The period of time within which the Contractor shall promptly, without cost to Department and in accordance with Department’s written instructions, either correct Defective Work, or if it has been rejected by Department, remove it from the site and replace it with non-defective Work, pursuant to paragraph 12.12 of the General Conditions.
Cost and Pricing Data - Refers to all data available to and relied upon by Contractor in negotiating, pricing, or performing Work covered by a Change Order, or a Proposed Change Order, or involved in a claim. Sample Cost and Pricing Data include data and supporting documents pertaining to labor wages and material rates, crew mixes, labor productivity, payroll costs, price catalogs, quotations from and payments to Subcontractors, Suppliers or others, equipment production rates, equipment costs, sales and use taxes, cost of premiums for Bonds and Insurances, costs related to the determination of general and administrative overhead, site office overhead, profit, estimates and estimating guides, Contractor's computations and projections, and all of the relevant assumptions made by Contractor in pricing or figuring increases or decreases in Contract Price or Contract Time.

Cost of the Work Involved - The sum of all costs necessarily incurred and paid by Contractor in the proper performance of the Work involved.

Day - A calendar day consisting of 24 hours lasting from midnight to midnight on any two consecutive dates.

Defective Work - Work that is unsatisfactory, faulty or deficient, or does not conform to the Contract Documents, or does not meet the requirements of any inspection, reference standard, test or approval referred to in the Contract Documents, or has been damaged prior to Engineer's recommendation of final payment; unless responsibility for the protection thereof has been assumed by Department at Substantial Completion in accordance with paragraphs 13.8 or 13.10 of the General Conditions.

Delivery - Shall be effective on the date of receipt by the addressee.

Department - The New York State Department of Environmental Conservation.

Department Representative(s) - Employee(s) of Department engaged in Department activities relating to the work, but not responsible for day to day administration of the Project.

Design Engineer - The individual, partnership, corporation, joint venture, or any allowable combination thereof, who prepared and sealed the Contract Documents that were advertised for bid by Department.

Designated Contact(s) - Individuals to whom all contacts can properly be made during the Restricted Period in relation to the Permissible Contacts during a Procurement and Prohibition of Inappropriate Lobbying Influence clause of the Contract Documents. The Project Manager shall serve as the Department's Designated Contact for the Contract.

Designated Representative to Resolve Disputes - Department employee responsible for resolving all disputes between Contractor and Project Manager, as identified in the Supplementary Bidding Information and Requirements.
Dispute - A Claim that is not resolved pursuant to Article 8.10 of Section VIII - General Conditions, becomes a Dispute to be resolved under Article VIII – Dispute Resolution of Appendix B – Standard Clauses for All New York State Department of Environmental Conservation Contracts.

Drawings, Plans - The Drawings, Plans or reproductions thereof, which show location, character, dimensions, and details of the Work to be performed and which are referred to in the Contract Documents.

Effective Date of the Agreement - The date on which the Agreement is executed by Comptroller.

Employee - Any person working on the project mentioned in the Contract of which these specifications are a part, and who is under the direction or control, or receives compensation from Contractor or Subcontractor.

Engineer - The individual, partnership, corporation, joint venture, or any allowable combination thereof, any entity named as Engineer in the Agreement who will have the rights and authority assigned to Engineer in the Contract Documents. The term "Engineer" means the Engineer or its authorized representative.

Equipment - All machinery and equipment, together with the necessary supplies for upkeep and maintenance, and also tools and apparatus necessary for the proper construction and acceptable completion of the Work.

Field Order - A written order issued by Engineer to Contractor which orders minor changes in the Work in accordance with Article 9.2 of the General Conditions not involving an adjustment in the Contract Price or the Contract Time.

Law(s) - Applicable laws, rules, regulations, ordinances, codes or orders of a Federal or New York State court.

Material - Any approved material acceptable to Department and conforming to the requirements of the specifications.

Notice of Intent to Award - The written notice by Department to a Bidder stating that upon compliance by that Bidder with the conditions enumerated therein, within the time specified, Department intends to process contract through the appropriate New York State contract reviews.

Notice to Proceed - The Department’s written notice of Agreement execution by the Comptroller, stating pertinent information with which Contractor must comply and, where applicable, authorizing Contractor to proceed with the Work at the site.
**Overhead** - General and administrative costs (whether at the site or in Contractor's principal or branch offices) and all other miscellaneous costs not assigned to a specific payment item as identified in Articles 9, 10 and 11 of the General Conditions.

**Partial Utilization** - Placing a portion of the Work in service for the purpose for which it is intended (or a related purpose) before reaching Substantial Completion for all the Work.

**Physical Completion** - The Work and all parts thereof have been completed to the satisfaction of Department.

**Progress Schedule** - Drawings, data computer reports, and narratives disclosing Contractor's approach to the Work; the associated Early Schedule, Late Schedule and Float times, as supported by the Critical Path Method (CPM) or Bar Chart Diagram; the Schedule of Values; and the Schedule of Shop Drawing submissions.

**Project** - The term “Project” means work at the same Site carried out pursuant to one or more sets of Contract Documents.

**Project Field Representative** - Department employee assigned responsibility for the day to day administration of the Project.

**Progress Payment** - Payment made to the Contractor as the result of an Application for Payment which accurately reflects the Contract work completed to date.

**Project Manager** - Department employee identified in the Supplementary Bidding Information and Requirements, responsible for administration of work required by Contract Documents and supervision of the Project Field Representative(s).

**Proposed Change Order** - A document prepared on a form furnished by the Department which is to be used: 1) by Department when requiring that Contractor figure the potential effect on Contract Price or Contract Time of a proposed change, (the proposed change is ordered upon signing by Department), or 2) by Contractor to notify Department that in the opinion of Contractor a change is required to respond to differing or unforeseen physical conditions under which the Work is to be performed as provided in paragraph 3.7 of Article 3 of the General Conditions or to emergencies under paragraph 5.23 of Article 5 of the General Conditions, or has been ordered in a Field Order, or in Engineer's approval of a Shop Drawing or sample, or in Engineer's written interpretation or clarification of the requirements of the Contract Documents. When signed by Department, a Proposed Change Order may or may not fully adjust Contract Price or Contract Time but is evidence that the change directed or documented by the Proposed Change Order will be incorporated in a subsequently issued Change Order following negotiations as to its effect, if any, on Contract Price or Contract Time.

**Resident Engineer** - The authorized representative of Engineer who is assigned to the site or any part thereof.
**Resident Project Representative(s)** - Person acting as assistant to the Resident Engineer who is assigned to the site or any part thereof.

**Resident Superintendent** - The authorized representative of Contractor who is assigned to the site or any part thereof.

**Restricted Period** - The time period which runs from contract bid advertisement to contract execution by the Comptroller.

**Retainage** - A percentage of a Progress Payment withheld by the Department from a Contractor as guaranty that all contract requirements will be satisfactorily completed.

**Request for Interpretation** - A document prepared on a form furnished by the Department which is to be used by the Contractor to request interpretation or clarification of the Contract Requirements by the Engineer.

**Shop Drawings** - All drawings, diagrams, illustrations, schedules and other data which are specifically prepared by or for Contractor to illustrate some portion of the Work and all illustrations, brochures, standard schedules, performance charts, instructions, diagrams and other information prepared by a Supplier and submitted by Contractor to illustrate material or equipment for some portion of the Work.

**Site** – The horizontal and vertical area requiring Work by Contractor, as bounded by and represented in the Contract Documents.

**Specifications** - Those portions of the Contract Documents consisting of written technical descriptions of materials, equipment, construction systems, standards and workmanship as applied to the Work and certain administrative details applicable thereto.

**Subcontractor** - An individual, partnership, corporation, joint venture or other allowable combination thereof, having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work at the site.

**Substantial Completion** - The Work, or a specified part thereof, has progressed to the point where, in the opinion of Engineer as evidenced by Engineer's definitive Certificate of Substantial Completion, it is sufficiently complete, in accordance with the Contract Documents (with the exception of the minor items identified during inspection described in paragraph 13.6 of the General Conditions), so that it can be utilized continuously for the purposes for which it is intended. Substantial Completion of the Work, or specified part thereof, may be achieved either upon completion of Pre-Operational Testing or Start-up Testing, depending upon the requirements of the Contract Documents. The terms "substantially complete" and "substantially completed" as applied to any Work refer to Substantial Completion thereof.
Supplier - A manufacturer, fabricator, supplier, distributor, vendor, or other entity providing materials or components for the Project.

Testing, Pre-Operational - All testing, associated trim-out activities and specified manufacturer or supplier training required prior to placing the facilities in service, including but not limited to manufacturer or supplier installation checks; leak, disinfection and pressure tests; removal or erection of temporary components; tie-ins; flushing and chemical/mechanical cleaning operations; specified performance tests; and other necessary non-operating adjustments, cold-alignment checks, corrections, housekeeping and spare parts stocking required of Contractor to demonstrate to Department and Engineer that individual components of the Work have been properly erected and do operate in accordance with the Contract Documents, and that they can be placed in service and utilized continuously for their intended purposes.

Testing, Start-Up - Follows Pre-Operational Testing. Start-up Testing commences by placing portions of the Work in service under interim conditions, continues through initial utilization of the facilities under design media, and culminates with predefined trial utilization tests during which Contractor is to operate the Work, or specified parts thereof, under actual and simulated operating conditions and performing as defined in the Contract Documents, for the purposes of: a) making such minor adjustments and changes as may be found necessary to comply with the requirements of the Contract Documents, and b) complying with the Start-up Test requirements outlined in the Contract Documents.

Total Float - Number of working days by which a part of the Work identified in the progress schedule may be delayed without necessarily extending the corresponding Contract Time(s).

Underground Facilities - All pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels or other such facilities or attachments, and any encasements containing such facilities which have been installed underground to furnish any of the following services or materials: electricity, gases, steam, liquid petroleum products, chemicals, telephone or other communications, cable television, sewage and drainage removal, traffic or other control systems or water.

Work - Any and all obligations, duties, responsibilities, labor, materials, equipment, temporary facilities, and incidentals, and the furnishing thereof necessary to complete the construction assigned to, or undertaken by, Contractor pursuant to the Contract Documents. Also, the entire completed construction or the various separately identifiable parts thereof required to be furnished under the Contract Documents. Work is the result of performing services, furnishing labor, and furnishing and incorporating materials and equipment into the construction, all as required by the Contract Documents.
SECTION III

Bidding Information and Requirements

ARTICLE 1 - Address for Notices

It is understood and agreed between the parties that Department's Representative(s) for the implementation of this Agreement, or for approval and direction called for therein, shall be the individual(s) named in Article 2 of Section IV, "Supplementary Bidding Information and Requirements."

Whenever it is provided in this Agreement that notice shall be given or other communications sent to Department, such notices or communications shall be delivered or sent to the Project Manager at the address set forth in Article 2 of Section IV, "Supplementary Bidding Information and Requirements." However, the Bid submittal should be addressed as stated in Article 3 – Bid Instructions below.

ARTICLE 2 - Interpretation of Bidding Documents

The Department shall make no interpretation of the meaning of the Bidding Documents orally. All questions regarding the intent or meaning of the Bidding Documents shall be submitted in writing to the Project Manager at the address set forth in Article 2 of Section IV, "Supplementary Bidding Information and Requirements". The reply to same, when deemed necessary, will be made available by Addendum. To be given consideration, all inquiries must be received in writing at the address set forth in Article 2 of Section IV, "Supplementary Bidding Information and Requirements", at least ten (10) days prior to the date fixed for the opening of Bids, or by the date indicated by Department. Any and all interpretations, and any supplemental instructions will be in the form of written Addendum(s) made available in electronic format. Failure of any Bidder to receive any such Addendum(s) shall not relieve said Bidder from any obligation under its Bid as submitted. All Addendum(s) so issued shall become part of the Bidding Documents.

All pre-bid inquiries answered by means other than Addendum shall not be binding.

ARTICLE 3 - Bid Instructions

Department invites sealed Bids, on the forms attached hereto and submitted in the envelopes provided to: New York State Department of Environmental Conservation, Division of Management and Budget Services, Bureau of Expenditures, 625 Broadway, 10th Floor, Albany, New York, 12233-5027.

The outside of the envelope must bear the name and address of the Bidder, the Site Name, Site Number and Contract Number from the cover of the Contract Documents and specification book and be clearly marked as "Bid."
Department may consider non-responsive any Bid not prepared and submitted in accordance with the provisions hereof, may waive any informalities or irregularities in any Bid, or may reject any or all Bids. Bids that are illegible or that contain any omission, erasures, alterations, additions, conditions, or items not called for in the Bidding Documents, or that contain other irregularities of any kind, may be rejected as non-responsive. The failure or omission of any Bidder to obtain or examine any form, instrument, document, or Bidding Documents, or any part thereof, shall in no way relieve any Bidder from any obligation in respect to its Bid. Complete sets of Bidding Documents shall be used in preparing Bids; neither Department nor Engineer assume any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.

Department is responsible for providing Addendum(s) only to those persons or firms recorded as having attended the mandatory Pre-Bid Conference.

Department and Engineer make copies of Bidding Documents available only for the purpose of obtaining Bids on the Work and do not authorize any other use of the Bidding Documents.

Each Bid must be submitted on the official form which is furnished by Department. All blank spaces in the Bid must be filled in as noted, and no change shall be made in the phraseology of the Bid or in the items mentioned therein.

The Bidder shall sign, in the space provided in the Bid form, with his or her usual signature. An officer of a corporation or a member of a partnership signing for the Bidder, shall place his or her signature and title after the word "By" under the name of the Contractor. The same procedure shall apply to the Bid of a joint venture by two or more Bidders; however, if the signature is by an Agent or Attorney-in-fact for the parties of the joint venture, then the Bid shall be accompanied by evidence of his or her authority to act on behalf of all parties of the joint venture.

The Bidder shall complete that portion of the Bid form requesting a statement of the Addendum(s) which have been received, by Addendum(s) number and date. If no Addendum(s) have been received, insert the word, "NONE." Failure to complete this portion of the Bid form may result in a Bid being declared non-responsive at Department's option.

Each Bid shall specify in words and figures, the correct gross sum, in the manner hereafter described for which the Work shall be performed according to the Bidding Documents together with a unit price expressed in words and figures for each separate items for which such a price is required. The lowest Bid shall be determined by Department on the basis of the total sum for which the entire Work will be performed, arrived at by a correct computation of all items specified in the Bidding Documents at the prices stated in the Bid. Department reserves the right to reject any Bid in which the Bid prices appear to constitute an unbalanced Bid for the work.
In the event there is a discrepancy in any Bid between the unit prices and the extended totals, the unit prices shall govern. In the event there is a discrepancy in any Bid between the prices written in figures and the unit or lump sum prices written in words, the prices written in words shall govern. Department may reject as non-responsive Bids which do not contain a price for every numbered item contained in the Bid form, or, may insert a zero for every numbered item that does not contain a price.

Unless Department gives instructions to the contrary, the Bidder shall use no more than three decimal places in the cents column under unit Bid price items. If Bidder uses more than three decimal places without such instructions, Department may round off the Bid item to three decimal places.

The Bidder is responsible for examining supplemental information which is available for inspection, upon request, at the address for notices in Article 1 of this Section.

Department will not accept any Bid which has been transmitted electronically (e.g. via Facsimile, Telephone, Telegraph, email, text) or which has been received after the designated bid opening time except where there is evidence that the bid arrived on time but was mishandled by the Department. A late Bid will be returned unopened with notification of the reason for non-acceptance.

Bids will only be accepted from persons or firms who have attended the mandatory Pre-Bid Conference.

**Permissible Contacts During a Procurement and Prohibition of Inappropriate Lobbying Influence** - Pursuant to State Finance Law §§139-j and §139-k, this contract includes and imposes certain restrictions on communications between a Governmental Entity and an Offerer/Bidder during the procurement process. An Offerer/bidder is restricted from making contacts from the earliest notice of intent to solicit bids through final award and approval of the Procurement Contract by the Department of Environmental Conservation (Department) and, if applicable, Office of the State Comptroller (“restricted period”) to other than designated staff unless it is a contact that is included among certain statutory exceptions set forth in State Finance Law §139-j(3)(a). Designated staff, as of the date hereof, is identified on page I-1 of Section I, Advertisement and Notice to Bidders. Department employees are also required to obtain certain information when contacted during the restricted period and make a determination of the responsibility of the Offerer/bidder pursuant to these two statutes. Certain findings of non-responsibility can result in rejection for contract award and in the event of two findings within a four (4) year period, the Offerer / Bidder is debarred from obtaining governmental Procurement Contracts. Further information about these requirements, including a copy of the new lobbying law, can be found at [http://www.ogs.state.ny.us/aboutogs/regulations/defaultAdvisoryCouncil.html](http://www.ogs.state.ny.us/aboutogs/regulations/defaultAdvisoryCouncil.html).
ARTICLE 4 - Modification or Withdrawal of Bid

Permission will not be given to modify or explain by letter, telegram, telephone or otherwise, any Bid after it has been deposited with the Department except that a Bid may be withdrawn, modified, and resubmitted prior to the date and time for opening the Bids. After such date and time, no Bid may be withdrawn by a Bidder except as provided by law, and provided further that: 1.) the Bidder files a duly signed written notice of a Bid mistake with Department within two (2) business days after the day of the Bid opening, and 2.) within three (3) business days thereafter demonstrates to the reasonable satisfaction of Department that there has been a material and substantial mistake in the preparation of the Bid. If these two conditions are not met, then the bid bond would be forfeited.

Prior to submittal of Bid, a Bidder may alter or correct a unit price, or a lump sum item, which has been entered on the Bid form by crossing out the entry, entering the new figure above or below the crossed-out entry, and initialing on the line of change. The crossing out of entries shall be with ink or typed. All new entries and initials shall be legibly handwritten with ink or typed. Any ambiguity arising from entries altered or corrected on the Bid Form may be cause for Department's rejection of the Bid as non-responsive.

If the Bid is made by an individual, the business address shall be given. If made by a corporation, the names and business addresses of the president, secretary and treasurer shall be given. If made by a partnership, the names and business addresses of the partners shall be given.

Department reserves the right to disqualify Bids, before or after opening, upon evidence of collusion with intent to defraud or other illegal practices upon the part of the Bidder.

All Bids submitted by an individual, a firm or partnership, a corporation or association, which submits more than one Bid for the same Work under the same or different name shall be rejected.

ARTICLE 5 - Required Bid Submittals

The following are to be submitted within the time periods indicated. At the option of Department, failure to make or amend a submittal will constitute proof that the Bidder has abandoned all rights and interests in the contract; that the Bid Security is forfeited to Department as liquidated damages; and that the Work may be awarded to another Bidder in a manner consistent with Law.

a) The following items are to accompany Contractor's Bid submitted to Department as required in Article 3. The applicable forms and instructions can be found in Section V – Consolidated Bid Form Acknowledgements, Article 1:
   - Form of Bid (completed and endorsed)
• Bid Bond or Certified Check

• Offerer Disclosure of Prior Non-Responsibility Determinations (completed and endorsed)

• Vendor Assurance of No Conflict of Interest or Detrimental Effect (endorsed)

• In the case of a legally constituted joint venture, the Bidders must submit a copy of the written joint venture agreement with their Bid. Each member can only be part of one (1) joint venture. The agreement shall clearly define the relationship and services to be performed by each member, identify the authorized representative for each member, designate the lead principal participant, provide proof of insurance, identify percent equity share held by each member, and include any other relevant information.
  o The Bidder must also submit a statement signed by the Bidder’s authorized representative acknowledging that such entities will be required to provide evidence of joint and several liability for the Bidder’s obligations under the Contract. If the entity is an LLC, a statement signed by the bidder’s authorized representative acknowledging that such entities will be required to provide guarantees of the Bidder’s obligations under the Contract.
  o If the joint venture has not yet been legally formed, then the Bidder must submit a description of the proposed legal structure and draft copies of the underlying documents, including: a) all significant terms of the joint venture or partnership, including the rules relative to the administration of the joint venture, limited liability company or partnership, including dealing with deadlock situations; b) description of how the joint venture, limited liability company or partnership will operate administratively and technically; and c) a teaming agreement or comparable document setting forth the equity member’s agreement to form the organization.

• Sexual Harassment Prevention Certification (see Article 26 below)

b) The following items shall be submitted to the Project Manager within five (5) days of notification that the Bidder is the apparent low Bidder. The applicable forms and instructions can be found in Section V – Consolidated Bid Form Acknowledgements, Article 2:

• Off-site permitted facility to receive material along with a copy of the facilities permit

• Plan of Operations (Work Plan) and Progress Schedule, Health and Safety Plan, Sampling Plan, and QA/QC Plan
• Statement of Surety's intent, complete and signed by a duly authorized surety company licensed to do business in the State of New York

• A description of projects completed by Bidder documenting its experience in this type of work

• Completed NYS Vendor Responsibility Questionnaire (CCA-2) or an affidavit of no change (if appropriate). If the forms are filed using Office of the New York State Comptroller (OSC) online VendRep System, a letter certifying that the forms have been so completed and submitted must be sent to the Project Manager. In the case of a joint venture, each member will be required to complete and submit a Vendor Responsibility Questionnaire or an affidavit of no change (if appropriate). (Must be bound separately if submitting a paper copy of the Vendor Responsibility Questionnaire.)

• The Contractor agrees to submit an MWBE Utilization Plan and Work Force Utilization Plan either prior to or at the time of the execution of the contract. The Contractor agrees to use such MWBE Utilization Plan for tracking the performance of MWBE’s on the Contract Pursuant to the prescribed MWBE goals.

• An Authorizing Resolution stating that a certain individual has the authority to sign the Contract on behalf of the firm.

• Endorsed Executive Order No. 177 Certification (Anti-Discriminatory Policies and Practices)

• Any other information that demonstrates the Bidder’s ability to perform the work described herein

• Low bidders may be asked to submit additional information to demonstrate competency

c) The following items shall be submitted to the Project Manager within 14 days from the date of the Notice of Intent to Award letter from Department. The applicable forms and instructions can be found in Section V – Consolidated Bid Form Acknowledgements, Article 3:

• Executed Agreement (four (4) endorsed/inked originals)

• Performance Bond with Power of Attorney & Surety Financial Statement (original and three copies)

• Labor & Materials Bond with Power of Attorney & Surety Financial Statement (original and three copies)
• Bid Breakdown of Items (original) (see Article 12 below)

• Certificates of Insurance (original)

• M/WBE-EEO Utilization Plan (original). If the forms are filed using the Department’s electronic M/WBE System, a letter certifying that the forms have been so completed and submitted must be sent to the Project Manager.

• Service-Disabled Veteran-Owned Business (SDVOB) Utilization Plan (original) as detailed in Appendix D

**ARTICLE 6 - Bid Security and Bonds**

Bid Security shall be made payable to Department in an amount not less than five percent (5%) of the Bidder's gross sum Bid. The Bid Security shall be in the form of either a certified or bank check upon an incorporated bank or trust company, or a Bid Bond issued by a surety satisfactory to Department.

Department will accept only Bonds from a surety company licensed to write Bonds of such character and amount under the laws of New York State and which are listed on the U.S. Department of the Treasury, Department Circular 570.

Attorneys-in-fact who sign Bonds shall file with such Bonds a certified copy of their Power of Attorney to sign Bonds and to conduct business in the State of New York.

The Bid Security of a Bidder awarded a Contract for the Work will be retained until such Bidder has executed the Agreement and furnished the required bonds and insurance, whereupon the Bid Security will be returned. If the Bidder fails to execute and deliver the Agreement, other required documents and furnish the required bonds and insurance within fourteen (14) days after the Notice of Intent to Award, Department may annul the Notice of Intent to Award, and the Bid Security of that Bidder will be forfeited to Department. The Bid Security of any Bidder whom Department believes to have a reasonable chance of receiving the award may be retained by Department until the earlier of either; the 45th day after the Bid opening, or seven (7) days after the Effective Date of the Agreement, whereupon Bid Security furnished by such Bidders will be returned. Bid Security of other Bidders will be returned after the Bid opening.

**ARTICLE 7 - Approval of "or Equal" or Substitution Equipment, Systems or Items**

There shall be no approval given by Department or Engineer during the bidding period or prior to Award of Contract for any "or equal" or substitution equipment, systems or items.

**ARTICLE 8 - Other Contracts and Occupancy**

Department may award other contracts in connection with this Work. Contractor shall not have exclusive occupancy of the real property within or adjacent to the limits of the Work.
In case of interference between the operations of utility owners and different contractors, Department will be the sole judge of the rights of each contractor and the sequence of work necessary to expedite the completion of the entire Project. In all such cases, Department's decision shall be accepted as final.

**ARTICLE 9 - Taxes**

Department is exempt from the payment of sales and compensating use taxes of the State of New York and of cities and counties on all materials, equipment and supplies sold to Department pursuant to this Contract. Also exempt from such taxes are purchases by Contractor and its Subcontractors of materials, equipment and supplies to be sold to Department pursuant to this Contract, including tangible personal property to be incorporated in any structure, building, or other real property forming part of the Project. These taxes are therefore not to be included in the Bid. The cost of all other taxes under the Contract shall be included in the Bid prices for the several items of the Contract.

**ARTICLE 10 - Experience and Financial Statements**

In accordance with New York State Executive Order No. 170, a Contract shall only be awarded to a responsible Bidder capable of performing and completing the Work in a satisfactory manner. The NYS Vendor Responsibility Questionnaire, instructions for which are included in Section V, "Bid Forms and Attachments" must be completed and submitted by the apparent low Bidder within five (5) days after the apparent low Bidder has been so notified.

Failure of the apparent low Bidder to timely submit the complete, properly executed questionnaire within five (5) days may result in disqualification.

Before Department will consent to any subcontracts at or over $10,000 in value, the proposed subcontractor must submit the complete, properly executed NYS Vendor Responsibility Questionnaire. Any delay in the progression of work caused by the failure of a subcontractor to comply with these requirements will be attributable to Contractor and any additional costs will be Contractor's responsibility.

The low Bidder shall demonstrate its responsibility to perform and complete Work by submitting a statement of its experience and the experience of any Subcontractor which the low Bidder intends to use to perform the Work. Department may require the low Bidder to further demonstrate its responsibility to perform and complete Work by submitting an additional experience and financial statement or information seven (7) days after bid opening or within seven (7) days of Department request, which shall include at a minimum, information pertaining to the Bidder's financial resources. The submitted financial information shall be certified by a Certified Public Accountant and shall be submitted in the form required by Department. This can also apply to Contractor's Subcontractors.
In the case of a joint venture, each member must meet the experience requirements specified in Article 17 of this Section. A bid cannot be submitted by a Bidder, including a joint venture, where the Bidder or one of the members of a joint venture has less than three (3) years satisfactory experience in construction of the work to be performed, unless the Bidder or member of a joint venture is a successor in interest to a pre-existing company which meets the required minimum of three (3) years satisfactory experience in construction of the work to be performed.

All on-site personnel are required to have 40-hour Occupational Safety and Health Administration (OSHA) training plus a current eight-hour refresher, baseline medical monitoring, plus a current yearly physical, and training and current fit testing for respirator use if applicable.

Additionally, the successful Contractor must be compliant with Section X – Standard Specifications, SPEC 01 35 29 – Contractor’s Health and Safety Plan and the OSHA Standards and Regulations contained in Title 29, Code of Federal Regulations, Part 1910 and 1926 (20 CFR 1910 and 1926) and subsequent additions and/or modifications, the New York State Labor Law Section 876 (Right-to-Know Law), the Standard Operating Safety Guidelines by the United States Environmental Protection Agency (EPA), Office of Emergency and Remedial Response and the Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities (NIOSH, OSHA, USCG, and EPA) provide the basis for the safety and health program. Additional specifications within this section are in addition to OSHA regulations and reflect the positions of both the EPA and the National Institute for Occupational Safety and Health (NIOSH) regarding procedures required to ensure safe operations at abandoned hazardous waste disposal sites.

**ARTICLE 11 - Preliminary Progress Schedule**

The Preliminary Progress Schedule shall consist of a narrative description and a time-scaled critical path method diagram or bar chart diagram as specified in Section X – Standard Specifications, SPEC 01 32 16 – Progress Schedule. The narrative in the Preliminary Progress Schedule shall describe the order in which Bidder proposes to perform the Work pursuant to the specified Contract Time(s) and Work sequence conditions indicated in or required by the Bidding Documents. It shall also indicate proposed starting and completion dates for Work expressed in terms of days elapsed from the Notice to Proceed associated with each division of the Specifications within each major structure or geographical area of Work. Activities shall further identify significant submittals, approvals and associated deliveries, significant testing, major Department responsibilities, and responsibilities of affected utilities and third parties. The narrative shall include monthly percentages of completion for the Work in relation to the rate of progress anticipated in the Preliminary Progress Schedule.

**ARTICLE 12 - Bid Breakdown**

The Bid breakdown shall be submitted by the apparent low Bidder within fourteen (14) days after the date of the Notice of Intent to Award letter. Discrepancies, ambiguities or
conflicts in the Bid breakdown shall be resolved in accordance with the terms and conditions set forth in Article 8.10 of Section VIII the General Conditions.

A Bidder submitting a Bid breakdown and awarded a Contract for the Work agrees and understands that those prices for separable parts of the Work disclosed on the Bid breakdown, where they are applicable and determined to be reasonable by Department may be used for the purposes of: a.) measurement and payment, b.) increase(s) or decrease(s) in the Contract Price due to adjustments in quantities to the separable parts of the Work, and c.) Change Orders or Proposed Change Orders which add or deduct like Work.

**ARTICLE 13 - Subsurface and Technical Information**

If boring logs and other subsurface information were made available for the inspection of Bidders, please note that such data were obtained with reasonable care and were recorded in good faith by Department, Engineer or the Design Engineer.

The soil and rock descriptions shown are as determined by a visual inspection of the samples from the various explorations unless otherwise noted. The observed groundwater levels and/or groundwater conditions indicated thereon are as recorded at the time of the exploration. These levels and/or conditions may vary considerably, according to the prevailing climate, rainfall and other factors, including the passage of time.

Similarly, data concerning leachate were obtained with reasonable care and recorded in good faith. The location and concentrations of leachate may vary considerably according to the prevailing climate, rainfall and other factors, including the passage of time. Bidders may rely upon accuracy of the subsurface technical data as to where (location) and when (exact time) data was obtained; but not upon non-technical data, interpretations or opinions contained therein or for the completeness thereof.

When reports showing data obtained by investigations and tests at the site by Department, Engineer or the Design Engineer are included with the Bidding Documents, or made available to Bidders as set forth in the Bidding Documents, it is expressly understood and agreed that technical data, but not any non-technical data, interpretations or opinions contained in such reports, are incorporated by reference into the Contract Documents. Bidders may rely upon the accuracy of all such technical data contained in such reports as to where (location) and when (exact time) such technical data was obtained, unless the Bidding Documents limit any other basis upon which such technical data may be relied upon. It is further expressly understood and agreed that the use of any technical data contained in such reports is subject to all of the conditions and limitations set forth in the Bidding Documents.

Subsurface and technical information is made available to Bidders in good faith so that they may be aware of the information utilized for design and estimating purposes. Department makes no representations or warranties, express or implied, as to the
completeness of this information or data, nor is such disclosure intended as a substitute for personal investigations, interpretations, and judgment of the Bidder.

**ARTICLE 14 - Underground Facilities**

The locations of Underground Facilities were ascertained with reasonable care and recorded in good faith from various sources, including the records of municipal and other public service corporations, and therefore such locations may only be approximate. Department does not assume responsibility for the accuracy or completeness of such locations.

**ARTICLE 15 - Examination of Bidding Documents and Site**

It is the responsibility of each Bidder, before submitting a Bid to: a.) examine the Bidding Documents thoroughly, b.) visit and visually inspect the site during the Pre-Bid Conference required pursuant to Article 3 of Section IV, "Supplementary Bidding Information and Requirements," c.) become familiar with local conditions that may affect cost, schedule, performance or furnishing of the Work, d.) become familiar with applicable Laws that may in any manner affect cost, schedule, performance or furnishing of the Work, e.) study and carefully correlate Bidder's observations with the Bidding Documents, and f.) notify the Project Manager identified in Article 1 of this Section promptly after discovering any conflicts, ambiguities, errors or inconsistencies in the Bidding Documents.

It is the responsibility of each Bidder to obtain any additional documents, information or data which pertain to the physical conditions (surface, subsurface and Underground Facilities) at or contiguous to the site which may affect cost, schedule, progress, performance or furnishing of the Work and which Bidder deems necessary to determine its Bid for performing and furnishing the Work in accordance with the Bidding Documents.

The submission of a Bid constitutes an incontrovertible representation by Bidder that Bidder has taken steps reasonably necessary to ascertain the nature and location of the Work, and that Bidder has investigated and accounted for in the preparation of the Bid: a.) Governmental requirements and all reasonably foreseeable general and local conditions that may affect cost, schedule, performance or furnishing of the Work. Examples of such conditions include: 1.) conditions bearing upon the transportation, disposal, handling and storage of materials, 2.) the availability and suitability of labor, water, electric power, telephone, sanitary services, and roads, 3.) weather, river stages, tides or similar conditions at or contiguous to the site, 4.) physical conditions of the site, and 5.) the character of equipment and facilities needed preliminary to and during Work performance, b.) character, quality and quantity of surface, subsurface and Underground Facilities at or contiguous to the site, insofar as this information is reasonably ascertainable from the Drawings and Specifications included as part of the Bidding Documents, from the reports referenced in the Supplementary Bid Information, and from the documents, information and data regarding physical conditions at or contiguous to the site obtained by Bidder, and c.) Bidding Documents to be sufficient in scope and detail to
indicate and convey understanding of all terms and conditions affecting cost, schedule, performance and furnishing of the Work.

Any Failure to take the actions described in this Article will not relieve that Bidder from responsibility for estimating properly the difficulty, cost of, and schedule for successfully performing the Work, or from performing the Work successfully without an increase in Contract Price or an extension in Contract Time.

Department, Engineer, or Design Engineer do not assume any responsibility for any conclusions or interpretations made by any Bidder based on the information made available by the Bidding Documents. Nor does Department, or Engineer assume any responsibility for any understanding reached or representation made concerning conditions which can affect the cost, schedule, progress, furnishing and performance of the Work prior to execution of the Contract, unless that understanding or representation is expressly stated in the Bidding Documents.

In an itemized contract, the estimate of quantities of work to be done and materials to be furnished is approximate and is given only as a basis of calculation upon which the award of the contract is to be made. Department does not assume any responsibility that the quantities estimated will be the actual quantities required; Contractor may not claim misunderstanding or deception because of such estimates of quantities or of the character of the work, location, or other condition pertaining thereto. Department may increase or diminish any or all of the quantities of work mentioned above or omit any of them, as deemed necessary or as being in the best interest of Department.

**ARTICLE 16 - Subcontractors, Suppliers or Others**

Unless otherwise agreed in writing by Department, Contractor shall subcontract no more than the percentage (%) of the total cost of the work under its contract as may be provided by the Contract Documents in Article 6 of Section IV, "Supplementary Bidding Information and Requirements". Procedures for approval of Subcontractors, Suppliers or other persons or organizations, after execution of the Agreement, are set forth in the General Conditions and the Supplementary Conditions.

**ARTICLE 17 - Award of Contract**

The Contract will be awarded to the lowest, responsive and responsible Bidder(s) that has prepared acceptable required submittals, in the opinion of Department, as stipulated in Article 5 of this Section.

To the extent permitted by applicable Law, Department reserves the right to reject any and all Bids, to waive any and all informalities or irregularities, to disregard all nonconforming, nonresponsive, or conditional Bids, or to re-advertise for Bids.

In order to be considered responsive, a Bid shall be completed, signed and be responsive in all respects to the Bidding Documents unless informalities are waived by Department.
In order to be considered responsible, a Bidder must establish to the complete satisfaction of Department and Engineer, as a minimum, that it has adequate and satisfactory experience and financial resources to meet the obligations under the Contract and award of the Contract would be in the best interest of the State. A Bidder's prior experience shall be considered satisfactory when among other factors, its performance of prior work was timely, of good quality, in compliance with any contract requirements including contracted costs and schedule, and in compliance with applicable Law. The Bidder must have a minimum of three (3) years satisfactory experience in construction of the work to be performed. This experience must include, but not be limited to, the excavation, transportations, and handling of hazardous waste and contaminated soil/sediment. Experience must also include the handling and treatment of contaminated water generated from hazardous waste operations. For work to be deemed satisfactory, the work must have been performed with required oversight from United States Environmental Protection Agency (USEPA), Department, or an equivalent state environmental regulatory agency (i.e., New Jersey DEP, Pennsylvania DER, etc). Brownfield cleanup work qualifies for the experience requirement. The bidder cannot meet the minimum experience requirements through the use of subcontractor(s).

Department may conduct such investigations as it deems necessary to assist in the evaluation of any Bid and to establish the responsibility in terms of satisfactory experience and financial ability of the Bidder, and of any proposed subcontractors. Department may reject the Bid of any Bidder which it deems not to be responsible and may reject performance of Work by any Subcontractor which it deems is not responsible.

It is the intent of the Department that the Work will be awarded within 45 calendar days after the opening of bids to the lowest responsive, responsible Bidder whose bid conforms to the requirements of the Contract Documents. Bids may not be withdrawn, altered or revoked during this 45-day period except as provided by law and specified within Article 4 of this Section. Even after the expiration of such 45-day period, Department may accept a Bid and award the work to any Bidder whose bid has not been unequivocally withdrawn or revoked prior to the mailing of written Notice of the Award to the successful Bidder. For purposes of the preceding sentence, withdrawal or revocation of a Bid shall not occur until Department receives an unequivocal written statement to that effect.

**ARTICLE 18 - Time is of the Essence**

Time is of the essence for the performance of Work required by the Contract Documents.

**ARTICLE 19 - Applicability of Federal, State and Local Law**

Any Bid and any Contract awarded pursuant to a Bid shall be subject to and governed by applicable Law.

It is the responsibility of each Bidder to be informed of and comply with federal, state and local Laws, affecting the cost, schedule, progress, performance or furnishing of the Work.
This requirement includes, but is not limited to, applicable regulations concerning minimum wages, nondiscrimination in employment, affirmative action, protection of public and employee safety and health, environmental protection, fire protection and permits, and fees and licensing.

**ARTICLE 20 - M/WBE and EEO Requirements**

The M/WBE and EEO provisions of Appendix B are required provisions for this contract. The Bidder is required to comply with State regulations 9NYCRR Part 543 entitled, "Requirements and Procedures Regarding Business Participation Opportunities for Minorities and Women on State Contracts."

The selected Bidder shall be required to make good-faith efforts to subcontract at least the percentage stipulated in Section VII Appendix B, of the contract price to NYS Certified Minority Business Enterprise(s) (MBE) and Women Business Enterprise(s) (WBE), respectively.

In accordance with Executive Law Article 15-A, Department is required to make available the NYS Directory of Certified Minority and Women Owned Business Enterprises. Empire State Development has put the Minority and Women’s Business Development Directory on the Internet at [https://ny.newnycontracts.com](https://ny.newnycontracts.com). Support will be available from 9:00 a.m. to 5:00 p.m., Monday through Friday, except for NYS holidays. If assistance is needed call (855) ESD-4MWBE or (855) 373-4692. For additional information and assistance regarding NYS Certified M/WBE’s, please contact the Department’s Minority and Women’s Business Programs Unit at (518) 402-9240.

Pursuant to New York State Executive Law Article 15-A, and the attending rules and regulations, an approvable M/WBE Utilization Plan and Work Force Utilization Plan shall be required prior to or at the time of the execution of the Contract.

Contractor shall be required to provide equal opportunities to minorities and women with regard to all jobs necessary for the performance of work or contracts required by the project. In doing so, Contractor agrees to make good-faith efforts to employ minorities and women for at least the percentage stipulated in Section VII of Appendix B, of the work force hours required for the completion of the project. Different occupational category work force participation goals may be used to meet these overall goals for work force participation. Contractor shall not discriminate against employees or applicants for employment because of race, creed, color, national origin, sex, age, disability, or marital status, and shall undertake or continue existing programs of affirmative action to ensure that minority group persons and women are afforded equal opportunity without discrimination. Such programs shall include, but not be limited to, recruitment, employment, job assignment, promotion, upgrading, demotion, transfer, layoff, termination, rates of pay or other forms of compensation, and selection for training or retraining, including apprenticeship and on-the-job training.
As required by Department, Contractor shall request of each employment agency, labor union, or authorized representative of workers with which it has a collective bargaining or other agreement or understanding and which is involved in the performance of the contract with the Agency to furnish a written statement that such employment agency, labor union, or representative shall not discriminate because of race, creed, color, national origin, sex, age, disability, or marital status, and that such union or representative will cooperate in the implementation of Contractor’s obligations hereunder.

Contractor shall include the provisions of Section VII Appendix B in every subcontract or purchase order in such a manner that the subcontractor shall be required to comply with such provisions with respect to its work in conjunction with the contract with Department.

**ARTICLE 21 – Participation Requirements for New York State Certified Service-Disabled Veteran-Owned Businesses**

Article 17-B of the New York State Executive Law provides for more meaningful participation in public procurement by certified Service-Disabled Veteran-Owned Businesses (SDVOBs), thereby further integrating such businesses into New York State’s economy. The Department recognizes the need to promote the employment of service-disabled veterans and to ensure that certified service-disabled veteran-owned businesses have opportunities for maximum feasible participation in the performance of Department contracts.

In recognition of the service and sacrifices made by service-disabled veterans and in recognition of their economic activity in doing business in New York State, Bidders are strongly encouraged and expected to consider SDVOBs in the fulfillment of the requirements of the Contract. Such participation may be as subcontractors or suppliers, as protégés, or in other partnering or supporting roles. To obtain more information regarding the utilization of SDVOBs including how to find and contact them, please use the contact information below or go to the Division of Service Disabled Veteran’s Business Development (DSDVBD) website at: https://ogs.ny.gov/veterans

The contractor must make good faith efforts to subcontract a goal of six percent (6%) of the contract amount to New York State Certified Service-Disabled Veteran-Owned Businesses (SDVOBs), for purposes of providing meaningful participation by SDVOBs. Appendix D further defines the SDVOB provisions required by Executive Law, Article 17B.

**ARTICLE 22 - Permissible Contacts During a Procurement and Prohibition of Inappropriate Lobbying Influence**

Chapter 1 of the Laws of 2005, as amended by Chapter 596 of the Laws of 2005 (collectively referred to as the “Lobbying Law”), makes major changes to the Legislative Law and State Finance Law relative to lobbying on government procurements. More specifically, the Lobbying Law creates two new sections in the State Finance Law: Section 139-j addresses restrictions on “contacts” during the procurement process; and Section
139-k addresses the disclosure of contacts and the responsibility of offerer(s)\(^1\) during the procurement process. The Lobbying Law applies to all procurements initiated on or after January 1, 2006. In this regard, a procurement means a contract or agreement involving an annual expenditure in excess of $15,000 for a commodity, service, technology, public work, or construction; purchase, sale or lease of real property; or revenue contract.

In conformity with the Lobbying Law, during a procurement’s restricted period\(^2\) the only New York State Department of Environmental Conservation (Department) officer(s) or employee(s) that the offerer may “contact” is/are the Department designated contact person(s) for that procurement. In this regard, “contact” means any oral, written, or electronic communication under circumstances where a reasonable person would infer that the communication was intended to influence a procurement. Exceptions to this rule include:

- submission of a written proposal in response to an RFP, IFB or any other solicitation method;
- submission of written questions as part of an RFP, IFB or other solicitation method where all written questions and written responses will be provided to all offerer(s);
- participation in a pre-proposal or pre-bid conference scheduled as part of an RFP, IFB or other solicitation process;
- written complaints by an offerer that the Department designated contact for a procurement fails to respond to in a timely manner;
- negotiations with the Department following tentative award;
- contacts between designated Department staff and offerer to request the review of a contract award; and
- communications with the Department regarding an appeal, protest or other review of a procurement, participation in an administrative or judicial proceeding regarding a procurement, and complaints regarding a procurement made to the Attorney General, Inspector General, District Attorney, or State Comptroller.

An offerer shall not, under any circumstances, attempt to influence a Department procurement in a way that violates or attempts to violate: Public Officers Law Section 73(5), relating to gifts intended to influence; or Public Officers Law Section 74, relating to the code of ethics for employees of state agencies, public authorities and public benefit corporations, members of the New York State Legislature, and Legislative employees.

An offerer who contacts the Department designated contact person for a procurement during the restricted period must be prepared to provide the following information: name,

\(^1\) Individual or entity, or any employee, agent, consultant or person acting on behalf of such individual or entity, that contacts the Department about a procurement during the restricted period.

\(^2\) The period of time commencing with the earliest public notice, advertisement or solicitation of a Request for Proposals (RFP), Invitation for Bids (IFB), solicitation of proposals or any other method for soliciting responses from offerers intending to result in a procurement contract by the Department, and ending with the final contract award and approval by the Department, and the Office of the State Comptroller (if required).
address, telephone number, place of principal employment and occupation of the person or organization making the contact, and whether the person/organization making the contact is the offerer or is retained, employed or designated by or on behalf of the offerer to appear before or contact the Department about the procurement.

An offerer that submits a proposal, bid or other response to a Department RFP, IFB or other solicitation method must: certify that it understands and agrees to comply with these guidelines regarding permissible contacts during a procurement and the prohibition of inappropriate lobbying influence; and disclose whether any governmental entity has, within the prior four years, found the offerer non-responsible due to a violation of the Lobbying Law or the intentional provision of false or incomplete information. Further, all Department procurement contracts will contain: a certification by the offerer that all information provided to the Department with respect to the Lobbying Law is complete, true and accurate; and a provision authorizing the Department to terminate the contract in the event such information is found to be intentionally false or incomplete.

The Department will investigate all allegations of violations of the Department guidelines regarding permissible contacts during a procurement and the prohibition of inappropriate lobbying influence. A finding that an offerer has knowingly and willfully committed such a violation may result in a determination that the offerer and its subsidiaries are non-responsible and therefore ineligible for award of the procurement contract. A second determination of non-responsibility for such a violation within four (4) years of the first such determination may render the offerer and its subsidiaries ineligible to submit a bid or proposal or be awarded a procurement contract for four (4) years from the date of the second determination. The Department will notify the New York State Office of General Services (OGS) of any determination of non-responsibility or debarments due to violations of the Lobbying Law.

If you require further guidance on the new Lobbying Law, you are encouraged to visit the Advisory Council on Procurement Lobbying website at the following address: https://jcope.ny.gov/lobbying-laws-and-regulations, where Frequently Asked Questions (FAQ’s) and answers adopted by the council have been posted. A copy of the new Procurement Lobbying Law is also available on this website.

**ARTICLE 23 – Diesel Emissions Reduction Act 2006**

In 2007, New York State passed legislation establishing the Diesel Emissions Reduction Act 2006 (DERA). This Act amended the Environmental Conservation Law (ECL) by adding Section 19-0323 which requires the use of best available retrofit technology (BART) and ultra-low sulfur diesel fuel (ULSD) for heavy duty vehicles owned or operated by, including on behalf of, state agencies and state or regional public authorities. The Department has promulgated regulations (6 NYCRR Part 248) to provide guidance on provisions of the law. The regulations may be found on the Department’s website at http://www.dec.ny.gov/regs/2492.html.
The Contractor must comply with the specifications and provisions of ECL Section 19-0323 and 6 NYCRR Part 248, which require the use of Best Available Retrofit Technology (BART) and Ultra Low Sulfur Diesel (ULSD), unless specifically waived by the Department. Qualifications for a waiver under this law will be the responsibility of the Contractor.

**ARTICLE 24 – Environmental Protection Fund Acknowledgment**

If applicable, in recognition of a portion of the Department funds utilized for any work completed under this Contract, the Contractor agrees to acknowledge in any communication to the public, that such funding was provided from the Environmental Protection Fund as administered by the New York State Department of Environmental Conservation.

**ARTICLE 25 – Executive Order 177**

Executive Order No. 177, Prohibiting State Contracts with Entities that Support Discrimination, orders that New York State’s government will not do business with entities that promote or tolerate discrimination or infringement on the civil rights and liberties of New Yorkers. New York State is dedicated to ensuring that all individuals are treated equally, regardless of their age, race, creed, color, national origin, sexual orientation, gender identity, military status, sex, marital status, disability, or other protected basis. To that end, New York has enacted numerous laws, regulations, and policies, and will continue to aggressively enforce its strong protections against discrimination to the maximum extent allowable by law.

In order to comply with this order, the Contractor is required to complete the Executive Order No. 177 Certification which certifies that it does not have institutional policies or practices that fail to address the harassment and discrimination of individuals on the basis of their age, race, creed, color, national origin, sex, sexual orientation, gender identity, disability, marital status, military status, or other protected status under the Human Rights Law.

**ARTICLE 26 - Sexual Harassment Prevention Certification**

State Finance Law §139-l requires bidders on state procurements to certify that they have a written policy addressing sexual harassment prevention in the workplace and provide annual sexual harassment training (that meets the minimum requirements of section two hundred one-g of the NYS Labor Law and Department of Labor’s model policy and training standards) to all its employees.

Where competitive bidding is required pursuant to statute, rule or regulation, every bid made to the state or any public department or agency of the state must contain the following statement:
“By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that the bidder has and has implemented a written policy addressing sexual harassment prevention in the workplace and provides annual sexual harassment prevention training to all of its employees. Such policy shall, at a minimum, meet the requirements of section two hundred one-g of the labor law.”

Bids that do not contain the certification will not be considered for award; provided however, that if the bidder cannot make the certification, the bidder shall provide a signed statement with their bid detailing the reasons why the certification cannot be made. After review and consideration of such statement, the Department may reject the bid or may decide that there are sufficient reasons to accept the bid without such certification.

Bidders are required to sign and submit the Sexual Harassment Prevention Certification form included in Section V, Article 1(g). If the bidder cannot make the certification then a signed statement must be submitted with the bid detailing the reasons why the certification cannot be made.
SECTION IV

Supplementary Bidding Information and Requirements

ARTICLE 1 - Location and Description of Project

The Site Number of this project is 932112. The Project is located at Old Upper Mountain Road in Lockport, New York, within Niagara County. Access to the site is from the southeast end of Old Upper Mountain Road, South Niagara Street, Oakhurst Street, and Niagara Street, Lockport New York.

The project involves remediation and restoration at the Old Upper Mountain Road site, located within the Town and City of Lockport, Niagara County, New York. These activities include, but are not necessarily limited to: site preparation and clearing; excavation, amendment, and consolidation of impacted sediment, floodplain soil, waste material, and debris located at the former dump site within OU-1 and Gulf Creek and its associated floodplain within OU-2; material dewatering and water treatment and management prior to discharge across the site; stream bank stabilization and installation of passive seep treatment infrastructure along a portion of Gulf Creek within OU-2; and grading and clean soil cap placement within OU-3. Additionally, site restoration activities will include, but are not necessarily limited to, installation of a modified Part 360 cap in the expanded footprint of OU-1 and within the existing footprint of the Lockport City Landfill and material and habitat enhancement feature placement and grading to facilitate reestablishment of a functional stream and wetland system in OU-2. All activities are to be performed in accordance with the specified design requirements included herein.

ARTICLE 2 - Department Representatives

Brianna Scharf, Project Manager  
Brianna.Scharf@dec.ny.gov  
Division of Environmental Remediation  
625 Broadway, Albany, NY 12233-7017

Sarah Saucier, Section Chief  
Sarah.Saucier@dec.ny.gov  
Division of Environmental Remediation  
625 Broadway, Albany, NY 12233-5060

Andrew Guglielmi, Division Director  
Designated Rep. to Resolve Disputes  
Andrew.Guglielmi@dec.ny.gov  
Division of Environmental Remediation  
625 Broadway, Albany, NY 12233-7011

Kristopher Keenan,  
Project Field Representative  
Kristopher.Keenan@dec.ny.gov  
Division of Environmental Remediation  
625 Broadway, Albany, NY 12233-7011

ARTICLE 3 - Pre-Bid Conference

A pre-Bid conference will be held on June 22, 2022, at the project site located at 5729 Old Upper Mountain Road, Lockport, New York, at the time of 10:00 AM Eastern Standard Time.
Time to view the Project area. The Pre-Bid Conference is held to discuss the requirements of the Bidding Documents, the protocols for performing the work, the conditions existing at the work site, and to provide for visual inspection of the Site by Bidders. Bidders will be required to sign an attendance sheet to document their presence at the mandatory Pre-Bid Conference. Department will accept Bids only from those bidders who attend the Pre-Bid Conference, attendance is mandatory as a condition of Bid.

Attendees are encouraged to review updated guidance and restrictions associated with COVID-19 from local, state, and federal resources. To avoid or reduce the potential spread of Coronavirus, we ask that you respect the following access restrictions when sending representatives to the Pre-Bid Conference:

- Do NOT travel to this site if you are experiencing flu-like symptoms: diarrhea, fever or feeling feverish/chills, cough, sore throat, runny or stuffy nose, muscle or body aches, headaches, fatigue (tiredness)

- Do NOT travel to this site if you have been in direct contact with a person diagnosed with COVID-19 or suspected of having COVID-19 and are under NYS Department of Health mandated isolation as a result of that contact.

Bidders should make every effort to send only two (2) representatives to participate in the Pre-Bid Conference.

**ARTICLE 4 - Additional Bid Submittals**

Section III – Article 5 outlines the required bid submittals that are to be submitted within the time periods indicated therein. Under Section III – Article 5, Sub-item (b), the fourth bulleted item listed shall be amended to require: A description of projects completed by Bidder documenting its experience in this type of work, including previous experience (including applicable experience in New York State and evaluations from other clients for whom the bidder has provided goods and/or services); the abilities and experience of the personnel to be assigned to the work and the ability to provide any needed advanced techniques such as modeling; and overall, information which demonstrates the bidder’s skill, judgment and business integrity. This should include the Bidder’s approach proposed in meeting the exact requirements of the scope of work and the need to purchase the goods from and/or subcontract performance of services to others, outlining any cost or schedule impacts to the Bidder’s overall performance of the Work.

Section III – Article 10, fifth paragraph, shall be amended to reflect the following: In the case of a joint venture, each member must meet the experience requirements amended in Section IV – Article 4 (refer to mention of Section III – Article 17 below). A bid cannot be submitted by a Bidder, including a joint venture, where the Bidder or one of the members of a joint venture has less than three (3) years satisfactory experience in construction of the work to be performed, unless the Bidder or member of a joint venture is a successor in interest to a pre-existing company which meets the required minimum
of three (3) years satisfactory experience in construction of the work to be performed. Factors to be considered in evaluating the goods and/or services to be supplied and/or the competence of the bidder are: previous experience (including applicable experience in New York State and evaluations from other clients for whom the bidder has provided goods and/or services); the abilities and experience of the personnel to be assigned to the work and the ability to provide any needed advanced techniques such as modeling; and overall, the bidder’s skill, judgment and business integrity. The approach proposed in meeting the exact requirements of the scope of work will be given consideration in evaluating the technical merit of the proposal, together with a well-organized task structure, the ability to timely supply the goods and/or perform the proposed services and the ability to meet other applicable goals, if any. The need to purchase the goods from and/or subcontract performance of services to others will be evaluated as to their effects on cost, as well as quality, schedule and overall performance.

ARTICLE 5 - Other Available Documents

The following items are available for contractor's review in preparing the Bid:

- Engineer’s Basis of Design Report for the Old Upper Mountain Road Site Environmental Remediation
- Record of Decision for the Old Upper Mountain Road Site (NYSDEC Site No. 932112) Operable Unit 01: Landfill – Old Upper Mountain Road Parcel and Operable Unit 02: Gulf Creek State Superfund Project
- Record of Decision for the Old Upper Mountain Road Site (NYSDEC Site No. 932112) Operable Unit 03: Landfill – Otto Park Place Parcel State Superfund Project
- Old Upper Mountain Road Site – NYSDEC Site No. 932112
  - https://www.dec.ny.gov/data/DecDocs/932112/
- Lockport City Landfill – NYSDEC Site No. 932010
  - https://www.dec.ny.gov/data/DecDocs/932010/

ARTICLE 6 - Subcontracting

The maximum subcontracting allowed for this contract is forty percent (40%) unless a higher percentage is approved by Department in writing.

ARTICLE 7 - Type of Schedule

Contractor shall provide a Critical Path Method (CPM) type of schedule as described in Section X, Standard Specifications, Section 01 32 16 – Progress Schedule.

ARTICLE 8 - Wage Rates

The Department requires, for the work under this contract, that the Contractor and its subcontractor pay at least the prevailing wage rate and pay or provide the prevailing
supplements, including premium rates for overtime pay, as issued by the State Labor Department. The current wage rates are included within the contract documents, Section XIII – Wage Rates and Associated Contract Requirements.

The Contractor is responsible for any additional costs related to new determinations of the wage rates. The annual determination of the prevailing rates of wages and supplements are usually published on May 31st of each year and are in effect July 1st through June 30th. New determinations will supersede the original schedule or any prior issued annual determination. Any rate change from a previously issued determination becomes effective July 1st, regardless of whether the new determination has been received by the Contractor.

Every contractor and subcontractor shall submit to the Engineer within thirty days after issuance of its first payroll, and every thirty days thereafter, a transcript of the original payroll records, subscribed and affirmed as true under penalty of perjury, as provided by Article 8, Section 220, of the NYS Labor Law. The Engineer shall receive and maintain such payroll records. The original payrolls and transcripts must be preserved for three (3) years from the date of completion of the project. The current prevailing wage rate schedule must be posted in a prominent and accessible place on the site of the public work project.

ARTICLE 9 – Bid Protest Guidelines

The intent and purpose of these guidelines is to set forth the procedure to be utilized when an interested party challenges a contract bid award solicited by the Division of Environmental Remediation and routed to the Office of the State Comptroller (OSC) for approval pursuant to the provisions of Section 112 of the State Finance Law.

The protestor is responsible for complying with the restrictions on “contacts” under the Procurement Lobbying Law (State Finance Law, Section 139-j). All protests must be submitted to the Designated Department Contact listed in the Contract Documents.

1. The bid protest must be submitted within ten (10) Business days of the Department’s Notification of Intent to Award letter being sent to the apparent low bidder.

2. The bid protest must be submitted in writing and must contain specific factual and/or legal allegations setting forth the basis on which the protesting party challenges the contract award. The notice of protest must be filed by the signatory of the bid or by an attorney representing the bidder. Any filing deadlines may be waived by the Department at its own discretion.

3. The Designated Department Contact will promptly submit the notice of protest, a bid protest summary and relevant bid documents to the Division of Management and Budget Services and the Office of General Counsel (OGC).
4. Once the formal notice of protest is filed, the Department, at its sole discretion, may continue or suspend the contract award process until the protest is resolved and a final Department determination is made.

5. As set forth in Section III, Article 17, of the Contract Documents, the Department reserves the right to reject any and all bids, to waive any and all informalities or irregularities, to disregard all nonconforming, nonresponsive, or conditional Bids, or to re-advertise for bids.”
SECTION V

Bid Forms and Acknowledgements

Site Name: Old Upper Mountain Road – Environmental Remediation

Site Number: 932112

ARTICLE 1(a) - Contract Bid Form and Acknowledgment for Environmental Remediation at the Old Upper Mountain Road site.

The Bidder hereby declares that either personally or through authorized representative(s), Bidder has carefully examined all Bidding Documents and has personally or through authorized representative(s) inspected the actual location of the work, together with the local sources of supply; and understands all terms and conditions of Bidding Documents. Bidder further understands that in signing this Bid, the right to plead any misunderstanding regarding the same is waived.

Pursuant to and in compliance with the Bidding Documents, the Bidder hereby offers to furnish all labor, materials, supplies, equipment and other facilities and appurtenances, necessary or proper for, or incidental to, the construction and completion of this Contract, as required by and in strict compliance with the applicable provisions of all Contract Documents, for the following unit and/or lump sum prices.

The undersigned shall meet the required submittal time periods listed in Section III - Bidding Information and Requirements, Article 5 - Required Bid Submittals.

The undersigned hereby designates the following office as the office to which such Notice of Intent to Award and Notice of Award may be emailed, mailed, or delivered:

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<thead>
<tr>
<th>Attention:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company Name:</td>
</tr>
<tr>
<td>Street Address:</td>
</tr>
<tr>
<td>City, State, Zip (+4):</td>
</tr>
<tr>
<td>Email Address:</td>
</tr>
<tr>
<td>Phone Number:</td>
</tr>
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BID

New York State Department of Environmental Conservation

Site Name: Old Upper Mountain Road – Environmental Remediation   Site Number: 932112

LUMP SUM ITEMS

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<tr>
<th>Payment Item Number</th>
<th>Description</th>
<th>Unit</th>
<th>Estimated Quantity</th>
<th>Unit or Lump Sum Price</th>
<th>Total Amount ($)</th>
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<tbody>
<tr>
<td>LS-1</td>
<td>Mobilization and Demobilization</td>
<td>LS</td>
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<tr>
<td>LS-2</td>
<td>Area 1 Site Access Road</td>
<td>LS</td>
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<td>LS-3</td>
<td>Clearing and Grubbing</td>
<td>LS</td>
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<td>LS-4</td>
<td>Demolition and Abandonment</td>
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<td>LS-5</td>
<td>Water Management</td>
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<td>LS-6</td>
<td>Containment Cell Preparation</td>
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<tr>
<td>LS-7</td>
<td>Containment Cell Cap</td>
<td>LS</td>
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<td>LS-8</td>
<td>Lockport City Landfill Sediment Cell (LCLSC) Preparation</td>
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<td>LS-9</td>
<td>Lockport City Landfill Sediment Cell (LCLSC) Cap</td>
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<td>LS-10</td>
<td>Restore OU-1</td>
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<td>LS-11</td>
<td>Restore OU-2</td>
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<td>Gulf Creek Seep Area Repair and Restoration</td>
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<td>LS-13</td>
<td>OU-3 Clean Soil Cap</td>
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Contractor Authorized Representative  
Contractor Name  
Date
## UNIT PRICE ITEMS

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<td>Non-Hazardous Debris Transportation and Offsite Disposal</td>
<td>Tons</td>
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<td>Unsatisfactory Subgrade Excavation, Transportation, Amendment, Placement, and Backfill</td>
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<td>UP-5</td>
<td>Area 2 OU-2 Sediment Excavation, Transportation, Amendment, and Placement</td>
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<td>UP-6</td>
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<td>UP-7</td>
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<td>Payment Item Number</td>
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<td>Total Amount ($)</td>
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<tr>
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<td>Site Services</td>
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<td>Winter Shutdown/ Winterization of Site</td>
<td>Days</td>
<td>86</td>
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</table>

**Grand Total Bid:** $ ____________________________

*(Price in figures)*

---

**Contractor Authorized Representative** ____________________________ **Contractor Name** ____________________________ **Date** ____________________________
The undersigned acknowledges the receipt of the following Addenda and agrees to be bound by all Addenda issued by Department whether or not listed herein.

<table>
<thead>
<tr>
<th>Addendum Number</th>
<th>Date of Addendum</th>
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<tbody>
<tr>
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</table>

Accompanying this proposal is bid security in the amount of $__________, said security is in the form of certified check(s) totaling $__________, and/or Bid Bond totaling $__________ which shall become the property of the Department if this proposal shall be accepted by the Department, or, should the undersigned fail to execute and return the Contract in a timely manner, or fail to comply with the requirements of the Bidding Documents.

**Corporate Seal**

(If no seal, write “No Seal” and sign)

______________________________

Legal Name of Person, Partnership, or Corporation

**By**

______________________________

Print Name and Title

______________________________

Signature

Date

**Please Complete Information Requested Below (as applicable):**

The P.O. Box Address of the Bidder is: ________________________________

Federal Identification Number is: ________________________________

(ACKNOWLEDGMENT)

State of )

s.s.: ________________________________

County of )

On the ___ day of ______ in the year _____, before me, the undersigned, a Notary Public in and for said State, personally appeared ___________________________, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

(Seal)

______________________________

Notary Public
ARTICLE 1(b) Bidder’s/Proposer’s Certification

Non-Collusive Bidding and Nondiscrimination in Employment in Northern Ireland MacBride Fair Employment Principles and State Ethics Law Principles and Procurement Lobbying Law

BY SUBMISSION OF THIS BID/PROPOSAL, AND BY SIGNING HEREUNDER THE BIDDER/PROPOSER, AND EACH PERSON SIGNING ON BEHALF OF SUCH PARTY CERTIFIES, AND IN THE CASE OF A JOINT BID/PROPOSAL, EACH PARTY THERETO CERTIFIES AS TO ITS OWN ORGANIZATION, UNDER PENALTY OF PERJURY, THAT TO THE BEST OF HIS/HER KNOWLEDGE AND BELIEF:

A. Non Collusion, State Finance Law §139-d

1) The prices in this Bid have been arrived at independently without collusion, consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other Bidder or with any competitor;

2) Unless otherwise required by law, the prices which have been quoted in this Bid have not been knowingly disclosed by the Bidder and will not knowingly be disclosed by the Bidder prior to opening, directly or indirectly, to any other Bidder or to any competitor; and

3) No attempt has been made or will be made by the Bidder to induce any other person, partnership or corporation to submit or not to submit a Bid for the purpose of restricting competition.

B. MacBride Fair Employment Principles, State Finance Law §165(5)

1) it or any individual or legal entity in which the Bidder/Proposer holds a ten-percent (10%) or greater ownership interest, or any individual or legal entity that holds a 10% or greater ownership in the Bidder/Proposer, either: (answer yes or no to one or both of the following, as applicable).

2) Has business operations in Northern Ireland:

   Yes ☐ or No ☐ (check answer) If yes, complete #3

3) Shall take lawful steps in good faith to conduct any business operations that it has in Northern Ireland in accordance with the MacBride Fair Employment Principles relating to non-discrimination in employment and freedom of workplace opportunity, regarding such operations in Northern Ireland and shall permit independent monitoring of its compliance with such Principles.

   Yes ☐ or No ☐ (check answer)

C. State Ethics Law Provision

By submittal of this bid, the undersigned hereby certifies, for and on behalf of the bidder, that he is familiar with the following provisions of the State Ethics Law provisions applicable to post employment restrictions affecting former state employees: POL §73(8)(a)(i) the two year ban, and §73(8)(a)(ii), the life time bar, and that submittal of this bid is not in violation of either provision, and that no violation will occur by entering into a contract or in performance of the contractual services, and further that the bidder recognizes that the Department may rely upon this certification.

   Except as follows: (attach information if needed)
(Bidder/Proposer is to make full disclosure of any circumstances which could affect its ability to perform in complete compliance with the cited laws. Any questions as to the applicability of these provisions should be addressed to the New York State Joint Commission on Public Ethics, 540 Broadway, Albany, NY 12207 or by phone (518) 408-3976.

D. **Procurement Lobbying Affirmation**

The Undersigned affirms that it understands and agrees to comply with the procedures of the New York State Department of Environmental Conservation relative to permissible contacts as required by State Finance Law §139-j (3) and §139-j (6) (b).

____________________________________________________
Print Name, Title

____________________________________________________
Signature, Date
ARTICLE 1(c) – Bid Security (Page to Attach)

If Bid Security is a Bid Bond, use Bid Bond form and provide certified power of attorney.
**ARTICLE 1(d) - Bid Bond**

Know all men by these presents, that we, the undersigned ______________________, as Principal, and ____________________, as Surety, are hereby held and firmly bound unto New York State Department of Environmental Conservation in the penal sum of _________________ for the payment of which, will and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns. Signed this ____ day of ______ 20___.

The condition of the above obligation is such that whereas the Principal has submitted to New York State Department of Environmental Conservation certain Bid, attached hereto and hereby made a part hereof to enter into a contract in writing, for the environmental remediation and restoration at the Old Upper Mountain Road site, Contract No. D012107, Site No. 932112.

**Now, Therefore**

a) If said Bid shall be rejected, or in the alternate,

b) If said Bid shall be accepted and the principal shall execute and deliver a contract in the Form of Contract attached hereto (properly completed in accordance with said Bid) and shall furnish a bond for the faithful performance of said contract, and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said Bid.

Then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligation of said Surety and its bond shall be in no way impaired or affected by any extension of the time within which the Owner may accept such Bids; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

**Corporate Seal(s) – Principal & Surety**  
(If no seal, write “No Seal” and sign)

By ____________________________________________  
Principal (Print Name and Title)

____________________________________________  
Principal (Signature and Date)

By ____________________________________________  
Surety (Print Name and Title)

____________________________________________  
Surety (Signature and Date)
ACKNOWLEDGMENT BY SURETY COMPANY

State of )
s.s.: )
County of )

On this ______ day of ________________, 20____ before me personally came ____________________________ to me known, who being by me duly sworn, did depose and say that he/she resides in ______________________ (city, state), that he/she is the _______ ____________ (title) of ______________________ (firm), the corporation described in and which executed the within instrument; that he/she knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by the order of the Board of Directors of said corporation and that he/she signed his/her name thereto by like order; and that the liabilities of said company do not exceed its assets as ascertained in the manner provided by the laws of the State of New York.

(Seal)               ________________________________
                     Notary Public

ACKNOWLEDGMENT BY PRINCIPAL

State of )
s.s.: )
County of )

On the ______ day of ________________, 20____, before me, the undersigned notary public, personally appeared ____________________________, known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose names(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

(Seal)               ________________________________
                     Notary Public
ARTICLE 1(e) - Offerer Disclosure of Prior Non-Responsibility Determinations
(Page 1 of 2)

Name of Individual or Entity Seeking to Enter into the Procurement Contract:

Name: ________________________________________________________________
Address: ______________________________________________________________

Name and Title of Person Submitting this Form:

Name: ____________________________________
Title: _____________________________________

Contract Procurement Number: D012107

Date: ________________

1. Has any Governmental Entity made a finding of non-responsibility regarding the individual or entity seeking to enter into the Procurement Contract in the previous four years?
   Yes ☐  No ☐  (If yes, answer questions 2.– 4., if no, go to question 5.)

2. Was the basis for the finding of non-responsibility due to a violation of State Finance Law §139-j?
   Yes ☐  No ☐

3. Was the basis for the finding of non-responsibility due to the intentional provision of false or incomplete information to a Governmental Entity?
   Yes ☐  No ☐

4. If you answered yes to any of the above questions, please provide details regarding the finding of non-responsibility below.

   Governmental Entity: ________________________________

   Date of Finding of Non-responsibility: ______________________

   Basis of Finding of Non-Responsibility: Provide details under separate cover, endorse, date and provide marked as Supplement to Article 1(e).
ARTICLE 1(e) - Offerer Disclosure of Prior Non-Responsibility Determinations

(Page 2 of 2)

5. Has any Governmental Entity or other governmental agency terminated or withheld a Procurement Contract with the above-named individual or entity due to the intentional provision of false or incomplete information?

Yes ☐ No ☐ (If yes, provide details below.)

Governmental Entity: ____________________________

Date of Termination or Withholding of Contract: ____________________________

Basis of Termination or Withholding: Provide details under separate cover, endorse, date and provide marked as Supplement to Article 1(e).

Offerer Certification:

Offerer certifies that all information provided to the New York State Department of Environmental Conservation with respect to State Finance Law §139-k is complete, true and accurate.

Signature: ____________________________

Date: ____________________________

Name: ____________________________

Title: ____________________________

This form must be signed by an authorized executive or legal representative and returned with the bid/proposal.
ARTICLE 1(f) – Vendor Assurance of No Conflict of Interest or Detrimental Effect
(Page 1 of 2)

The Firm offering to provide services pursuant to this Procurement/Contract, as a contractor, joint
venture contractor, subcontractor, or consultant, attests that its performance of the services
outlined in this Procurement/Contract does not and will not create a conflict of interest with nor
position the Firm to breach any other contract currently in force with the State of New York.

Furthermore, the Firm attests that it will not act in any manner that is detrimental to any State
project on which the Firm is rendering services. Specifically, the Firm attests that:

1. The fulfillment of obligations by the Firm, as proposed in the response, does not violate any
   existing contracts or agreements between the Firm and the State;

2. The fulfillment of obligations by the Firm, as proposed in the response, does not and will not
   create any conflict of interest, or perception thereof, with any current role or responsibility that the
   Firm has with regard to any existing contracts or agreements between the Firm and the State;

3. The fulfillment of obligations by the Firm, as proposed in the response, does not and will not
   compromise the Firm’s ability to carry out its obligations under any existing contracts between the
   Firm and the State;

4. The fulfillment of any other contractual obligations that the Firm has with the State will not affect
   or influence its ability to perform under any contract with the State resulting from this Procurement;

5. During the negotiation and execution of any contract resulting from this Procurement, the Firm
   will not knowingly take any action or make any decision which creates a potential for conflict of
   interest or might cause a detrimental impact to the State as a whole including, but not limited to,
   any action or decision to divert resources from one State project to another;

6. In fulfilling obligations under each of its State contracts, including any contract which results
   from this Procurement, the Firm will act in accordance with the terms of each of its State contracts
   and will not knowingly take any action or make any decision which might cause a detrimental
   impact to the State as a whole including, but not limited to, any action or decision to divert
   resources from one State project to another;

7. No former officer or employee of the State who is now employed by the Firm, nor any former
   officer or employee of the Firm who is now employed by the State, has played a role with regard
   to the administration of this contract procurement in a manner that may violate section 73(8)(a) of
   the State Ethics Law; and
ARTICLE 1(f) – Vendor Assurance of No Conflict of Interest or Detrimental Effect

8. The Firm has not and shall not offer to any employee, member or director of the State any gift, whether in the form of money, service, loan, travel, entertainment, hospitality, thing or promise, or in any other form, under circumstances in which it could reasonably be inferred that the gift was intended to influence said employee, member or director, or could reasonably be expected to influence said employee, member or director, in the performance of the official duty of said employee, member or director or was intended as a reward for any official action on the part of said employee, member or director.

Firms responding to this Procurement/Contract should note that the State recognizes that conflicts may occur in the future because a Firm may have existing or new relationships.

The State will review the nature of any such new relationship and reserves the right to terminate the contract for cause if, in its judgment, a real or potential conflict of interest cannot be cured.

Signature: ________________________________

Date: ________________________________

Name: ________________________________

Title: ________________________________

This form must be signed by an authorized executive or legal representative and returned with the bid/proposal.
ARTICLE 1(g) - Sexual Harassment Prevention Certification Form

By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that the bidder has and has implemented a written policy addressing sexual harassment prevention in the workplace and provides annual sexual harassment prevention training to all of its employees. Such policy shall, at a minimum, meet the requirements of section two hundred one-g of the labor law.

Company Name: _______________________________________________________________

Signature: ___________________________________________________________________

Print Name and Title: ___________________________________________________________________

Date: __________________________

If the above certification cannot be made, the bidder must submit a signed statement below detailing the reasons why the certification cannot be made.

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

Company Name: _______________________________________________________________

Signature: ___________________________________________________________________

Print Name and Title: ___________________________________________________________________

Date: __________________________
ARTICLE 2(a) - Statement of Surety’s Intent

To: New York State Department of Environmental Conservation

We have reviewed the Bid of:

____________________________________________________________________

(Contractor)

Having its place of business at:

____________________________________________________________________

(Address)

For the Project:

Environmental remediation and restoration at the Old Upper Mountain Road site, Site No. 932112

Bids for which will be received on ________________ (Bid Opening Date) and wish to advise that should this Bid of Contractor be accepted and the Contract awarded to Contractor, it is our present intention to become surety on the Performance Bond and Labor and Material Payment Bond required by the Contract.

Any arrangement for the Bonds required by the Contract is a matter between Contractor and ourselves and we assume no liability to Department or third parties if for any reason we do not execute the requisite bonds.

We, the undersigned, are duly licensed to do business in the State of New York.

Attest, and Attach Power of Attorney:

Corporate Seal
(If no seal, write "No Seal" and sign)

Surety Name, Title

Surety’s Authorized Signature(s), Date

Telephone Number and email address for Bonding Company

Telephone Number and email address for Bonding Broker
**Article 2(b) - M/WBE-EEO Utilization Plan and Work Force Utilization**

Contractor must submit M/WBE-EEO Utilization Plan after being issued Notice of Intent to Award in accordance with Article 5c. of Section III. Quarterly reporting is required throughout the term of the contract and Contractors will receive quarterly reminders from the M/WBE-EEO compliance unit.

Contractors are invited to file the required forms online or may choose to complete and submit paper forms. Instructions are available at: [http://www.dec.ny.gov/about/48854.html](http://www.dec.ny.gov/about/48854.html)

If submitting paper forms, The M/WBE-EEO Utilization Plan and/or quarterly reports shall be sent directly to:

NYS Department of Environmental Conservation  
Division of Management and Budget Services  
Minority and Women's Business Programs Unit  
625 Broadway, 10th Floor  
Albany, New York 12233-5028

Contractors opting to file electronic forms can obtain the appropriate forms from the website. The Contractor will be able to amend the forms either online, through the quarterly report process, or by contacting the M/WBE-EEO compliance specialist.

**M/WBE Directory on the Internet**

Empire State Development has put the Minority and Women-Owned Business Directory on the Internet. The Internet address is [https://ny.newnycontracts.com/](https://ny.newnycontracts.com/). Support will be available from 9:00 a.m. to 5:00 p.m., Monday through Friday, except for NYS holidays. If assistance is needed, call (855)-ESD-4MWBE or (855)-373-4692.
Article 2 (c) - Instructions for Completing the New York State Vendor Responsibility Questionnaire CCA-2

- Please Read Before Completing Questionnaire -

Contractors must submit a Vendor Responsibility Questionnaire CCA-2 form after being announced the low bidder for any competitively bid contract of $10,000 or more, or when proposed for subcontract work valued at $10,000 or more. The Department may require additional information deemed necessary for its review.

Contractors are invited to file the required Vendor Responsibility Questionnaire online via the New York State VendRep System or may choose to complete and submit a paper questionnaire. To enroll in and use the New York State VendRep System, see the VendRep System Instructions available at: http://www.osc.state.ny.us/vendrep/systeminit.htm or go directly to the VendRep System online at https://portal.osc.state.ny.us. For direct VendRep System user assistance, the Office of the State Comptroller’s Help Desk may be reached at 866-370-4672 or 518-408-4672 or by email at helpdesk@osc.state.ny.us. Contractors opting to file a paper questionnaire can obtain the appropriate questionnaire from the VendRep website www.osc.state.ny.us/vendrep or contact the Office of the State Comptroller's Help Desk.

The enrollment process in the VendRep System can take several days. Contractors are encouraged to enroll prior to submitting bids to ensure meeting the timeframes for certification.

Contractors electing to file the Vendor Responsibility Questionnaire online shall certify to the Department, via a letter, within the timeframe designated in the Instructions to Bidders, that the questionnaire has been updated. The Contractor will be able to supply any additional information requested by the Department, by updating the online questionnaire and notifying the Department via letter, that it has been recertified.

Throughout the contract term, the Contractor is required to notify the Department in writing of any changes in Contractor's vendor responsibility disclosure related to the Contractor commencing bankruptcy proceedings; filings against the Contractor for relief under bankruptcy; Contractor making general assessment for benefit of creditors; a Court appointing a party to take charge of the Contractor's property; Contractor's inability to pay debts; or the Contractor being found in violation of laws and regulations of any public body having jurisdiction.

If the Contractor elects to file a paper copy directly with the Department, a completed original CCA-2 Form must be submitted within the timeframe designated in the Instructions to Bidders. Submit completed questionnaires marked “CONFIDENTIAL” to:

NYS Department of Environmental Conservation
Division of Environmental Remediation
Brianna Scharf, Project Manager
625 Broadway, 12th Floor
Albany, New York 12233-7017
Article 2 (d) – Authorizing Resolution

The Contractor is required to submit an Authorizing Resolution stating that a certain individual has the authority to sign the Contract on behalf of the firm.
ARTICLE 2(e) – Executive Order No. 177 Certification

The New York State Human Rights Law, Article 15 of the Executive Law, prohibits discrimination and harassment based on age, race, creed, color, national origin, sex, pregnancy or pregnancy-related conditions, sexual orientation, gender identity, disability, marital status, familial status, domestic violence victim status, prior arrest or conviction record, military status or predisposing genetic characteristics.

The Human Rights Law may also require reasonable accommodation for persons with disabilities and pregnancy-related conditions. A reasonable accommodation is an adjustment to a job or work environment that enables a person with a disability to perform the essential functions of a job in a reasonable manner. The Human Rights Law may also require reasonable accommodation in employment on the basis of Sabbath observance or religious practices.

Generally, the Human Rights Law applies to:

- all employers of four or more people, employment agencies, labor organizations and apprenticeship training programs in all instances of discrimination or harassment;
- employers with fewer than four employees in all cases involving sexual harassment; and,
- any employer of domestic workers in cases involving sexual harassment or harassment based on gender, race, religion or national origin.

In accordance with Executive Order No. 177, the Bidder hereby certifies that it does not have institutional policies or practices that fail to address the harassment and discrimination of individuals on the basis of their age, race, creed, color, national origin, sex, sexual orientation, gender identity, disability, marital status, military status, or other protected status under the Human Rights Law. Executive Order No. 177 and this certification do not affect institutional policies or practices that are protected by existing law, including but not limited to the First Amendment of the United States Constitution, Article 1, Section 3 of the New York State Constitution, and Section 296(11) of the New York State Human Rights Law.

Contractor: ___________________________________
Signature: ___________________________________
Name:  ___________________________________
Title:  ___________________________________
Date:  ___________________________________
ARTICLE 3(a) - Instructions for Insurance

Please refer to Contract Documents Section VIII, Article 4, and any Addenda if applicable, for the types and amounts of insurance required for this contract, as well as the necessary forms and endorsement requirements.

Please:

1. Request that your insurance provider note the Department’s specific contract number D012107 in the Description of Operations box on the ACORD form.

2. List the following address on the Workers’ Compensation and Disability Benefits Certificates as Entity Requesting Proof of Coverage and on the ACORD forms and endorsements as the Certificate Holder:

   State of New York and the NYS Department of Environmental Conservation  
   Division of Environmental Remediation, Remedial Bureau E  
   Brianna Scharf, Project Manager  
   625 Broadway, 12th Floor  
   Albany, NY 12233-7017

3. Submit all required insurance certificates and applicable endorsements to the following address:

   New York State Department of Environmental Conservation  
   Division of Environmental Remediation, Remedial Bureau E  
   Brianna Scharf, Project Manager  
   625 Broadway, 12th Floor  
   Albany, NY 12233-7017
ARTICLE 3(b) - Instruction for Performance Bond and Labor and Material Payment Bond

1) The performance bond and the labor and material payment bond are to be only submitted by the bidder who receives the Notice of Intent to Award letter from Department.

2) Use the forms that are included in the Contract Documents. **DO NOT RETYPE THE FORMS.**

3) Attach a **SEPARATE** certified power of attorney and surety financial statement to **EACH** bond (i.e., one set attached to performance bond and one set attached to labor and material payment bond)

4) Performance Bond and Labor and Materials Payment Bond must be secured by the surety and notarized within three (3) days of the date the Contractor signs the agreement.
**ARTICLE 3(c) - Performance Bond (page 1 of 3)**

**Date Bond Executed:** ________________

**NYSDEC-DER Site Number:** 932112

**Date Contract Executed by Principal:** ________________

**Principal:** (Name and Address)

---

**Surety** (Name and Address - Indicate State of incorporation and location of principal office)

---

**Full and Just Sum of Bond**

(Express in Words)

(Express in Numbers)

---

Know all men by these presents, that we, the **Principal** and **Surety**, above named, are held and firmly bound unto the New York State Department of Environmental Conservation for and on behalf of the People of the State of New York, hereinafter called the Department, in full and just sum of the amount stated above, good and lawful money of the United States of America, to the payment of which said sum, well and truly to be made, we bind ourselves, our heirs, executors and administrators, successors and assigns, jointly and severally, firmly by these presents.

Whereas, the **Principal** has entered into a certain written contract with the Department, covering the project and specification above;

Now, Therefore, the condition of this obligation is such, that if the **Principal** shall well, truly and faithfully comply with and perform all of the terms, covenants and conditions of said contract on their (his, its) part to be kept and performed, according to the true intent and meaning of said contract, and shall protect the Department and the People of the State of New York against, and pay any and all amounts, damages, costs and judgments which may or shall be recovered against the Department or the State of New York may be called upon to pay to any person or corporation by reason of any damages arising or growing out of the doing of said work, or the repair or maintenance thereof, or the manner of doing the same, or the neglect of the **Principal**, or their (its) agents or servants, or the improper performance of the work by the **Principal**, or their (its) agents or servants, or the infringement of any patent or patent rights by reason of the use of materials furnished or work done as aforesaid or otherwise, then this obligation shall be null and void, otherwise to remain in full force and virtue.
ARTICLE 3(c) - Performance Bond (page 2 of 3)

And the **Surety**, for value received, hereby stipulates and agrees, if requested to do so by the department to fully perform and complete the work mentioned and described in the contract and specifications, pursuant to the terms, conditions and covenants thereof, if for any cause, the **Principal** fails or neglects to so fully perform and complete the work; and the **Surety** further agrees to commence the work of completion within twenty days after notice thereof from the Department, and to complete the work with all due diligence.

And the **Surety**, for value received hereby stipulates and agrees that no change, extension, alteration or addition to the terms of this contract or specifications, accompanying the same, shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension, alteration or addition.

**In Testimony Whereof**, the **Principal**, and the authorized officers of the **Surety** have caused this instrument to be signed and sealed on the date shown above.

Signed, sealed and delivered in the presence of:

---

Principal Organization

By

Print Name, Title

Signature, Date

---

Surety

Business Address

By

Print Name, Title

Signature, Date

---

Corporate Seal of Surety Company

Signature, Date

---

Attest

Print Name, Title

Signature, Date
- ACKNOWLEDGMENT BY SURETY COMPANY -

State of )
    s.s.:
County of )

On this ______ day of ____________________, 20____ before me personally came
____________________________ to me known, who being by me duly sworn, did
depose and say that he/she resides in ______________________ (city, state), that he/she is
the ______________________ (title) of ______________________ (firm), the corporation
described in and which executed the within instrument; that he/she knows the seal of said
corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed
by the order of the Board of Directors of said corporation and that he/she signed his/her name
thereto by like order; and that the liabilities of said company do not exceed its assets as
ascertained in the manner provided by the laws of the State of New York.

(Seal)                                          Notary Public

- ACKNOWLEDGMENT BY PRINCIPAL -

State of )
    s.s.:
County of )

On the _____ day of _____________________, 20___, before me, the undersigned notary public,
personally appeared _______________________, known to me or proved to me on
the basis of satisfactory evidence to be the individual(s) whose names(s) is (are) subscribed to
the within instrument and acknowledged to me that he/she/they executed the same in
his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the
individual(s), or the person upon behalf of which the individual(s) acted, executed the
instrument.

(Seal)                                          Notary Public
ARTICLE 3(d) - Labor and Material Payment Bond (page 1 of 3)

Date Bond Executed: ______________________

NYSDEC-DER Site Number: 932112

Date Contract Executed By Principal: ________________

Principal: (Name and Address)

________________________________________________________________________________________
________________________________________________________________________________________

Surety (Name and Address - Indicate State of incorporation and location of principal office)

________________________________________________________________________________________
________________________________________________________________________________________

Full and Just Sum of Bond

(Express in Words)

(Express in Numbers)

Know all men by these presents, That We, the Principal and the Surety above named, are held and firmly bound unto the Department of Environmental Conservation for and on behalf of the People of the State of New York, in full and just sum of the amount stated above, good and lawful money of the United States of America, to the payment of which said sum, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

Whereas, the Principal has entered into a certain written contract with the Department of Environmental Conservation, covering the project and specification indicated above.

Now, Therefore, the condition of this obligation is such, that if the Principal shall promptly pay all moneys due to all persons furnishing labor and materials to him or his subcontractors in the prosecution of the work provided for in the contract, then this obligation shall be void, otherwise to remain in full force and effect;

Provided, however, that the Comptroller of the State of New York having required the Principal to furnish this bond in order to comply with the provisions of Section 137 of the State Finance Law, all rights and remedies on this bond shall inure solely to such persons and shall be determined in accordance with the provisions, conditions and limitations of said Section to the same extent as if they were copied at length herein; and
Further, provided, that the place of trial of any action on this bond shall be in the county in which the contract was to be performed, or if the contract was to be performed in more than one county, then in any such county, and not elsewhere.

In Testimony Whereof, the Principal and the authorized officers of the Surety have caused this instrument to be signed and sealed on the date shown above.

Signed, sealed and delivered in the presence of:

Corporate Seal of Principal (if a Corporation)

By

Principal Organization

Print Name, Title

Signature, Date

Surety

Business Address

By

Print Name, Title

Corporate Seal of Surety Company

Signature, Date

Attest

Print Name, Title

Signature, Date
- ACKNOWLEDGMENT BY SURETY COMPANY -

State of  )  
s.s.:  
County of  )  

On this _____ day of ________________, 20___ before me personally came ___________________ to me known, who being by me duly sworn, did depose and say that he/she resides in ___________________ (city, state), that he/she is the _______________ (title) of _______________ (firm), the corporation described in and which executed the within instrument; that he/she knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by the order of the Board of Directors of said corporation and that he/she signed his/her name thereto by like order; and that the liabilities of said company do not exceed its assets as ascertained in the manner provided by the laws of the State of New York.

(Seal)  
Notary Public

- ACKNOWLEDGMENT BY PRINCIPAL -

State of  )  
s.s.:  
County of  )  

On the _____ day of ________________, 20___, before me, the undersigned notary public, personally appeared ___________________, known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose names(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

(Seal)  
Notary Public
ARTICLE 3(e) – SDVOB Utilization Plan

Contractor must submit a Service-Disabled Veteran-Owned Business (SDVOB) Utilization Plan after being issued a Notice of Intent to Award in accordance with Section III, Article 5.c. Quarterly reporting is required throughout the term of the contract.

For additional information regarding the SDVOB Utilization Plan and quarterly reporting including information on how to obtain the forms, the contractor should contact the Department’s SDVOB lead at:

SDVOB Program Lead  
Bureau of Contract and Grant Development  
New York State Department of Environmental Conservation  
625 Broadway, 10th Floor  
Albany, NY 12233-1080

Phone: 518-402-9240  
Email: sdvob@dec.ny.gov
SECTION VI

Agreement

This Agreement, by and between the New York State Department of Environmental Conservation (hereinafter referred to as Department) having offices at 625 Broadway, Albany, New York 12233 and, ____________________________ (Bidder name)

☐ a corporation organized and existing under the laws of the State of ________________

☐ a partnership, consisting of ____________________________

☐ an individual conducting business as ____________________________

hereinafter called “Contractor”, the location of whose principal office is, ____________________________

WITNESSETH

Whereas, Department is empowered by law to obtain services; the performance of these services is essential to Department; and Department, after fully examining all of its internal capabilities and thoroughly investigating all possible alternative approaches, has determined that certain tasks can best be accomplished through a contract;

Whereas, Contractor hereby represents that it is capable of providing the services which are the subject matter of this Contract;

Now Therefore, Department and Contractor, in consideration of the mutual covenants hereinafter set forth agree as follows:

ARTICLE 1 - Defined Terms
Terms used in the Agreement which are defined in the Contract Documents have the intent and meanings assigned to them in the Contract Documents.

ARTICLE 2 - Work
As indicated or specified in the Contract Documents, Contractor shall complete in a timely and workmanlike manner, any and all obligations, duties and responsibilities, and provide any and all labor, materials, equipment, temporary facilities, and incidentals necessary to complete the construction generally identified and shown on the plans and Contract Documents entitled:

New York State Department of Environmental Conservation
Division of Environmental Remediation
Site Name: Old Upper Mountain Road – Environmental Remediation
Contract No. D012107
Date: June 9, 2022
ARTICLE 3 - Engineer

EA ENGINEERING, P.C. (Engineer) shall assume all duties and responsibilities of and have the rights and authority assigned to Engineer in the Contract Documents in connection with completion of the Work in accordance with the Contract Documents.

ARTICLE 4 - Contract Documents

The Documents which comprise the entire Contract between Department and Contractor concerning the Work consist of the following:

4.1 Appendices A, B, C & D
4.2 Engineer's written clarifications and interpretations
4.3 Change Orders
4.4 Administrative Agreements
4.5 Field Orders
4.6 Proposed Change Orders signed by Department
4.7 Approved Shop Drawings
4.8 Addenda
4.9 Agreement (including all Appendices)
4.10 Measurement for Payment
4.11 Bid Forms and Attachments Exclusive of Bonds and Insurance Certificates
4.12 Drawings, Plans
4.13 Supplementary Specifications
4.14 Supplementary Conditions
4.15 Standard Specifications
4.16 General Conditions
4.17 Supplementary Bidding Information and Requirements
4.18 Bidding Information and Requirements
4.19 Terms and Definitions
4.20 Advertisement
4.21 Bonds and Insurance Certificates

In the event of a conflict between the documents set forth above, they shall be entitled to priority according to the order in which they are listed.

ARTICLE 5 - Contractor's Representations

In order to induce Department to enter into this Agreement, Contractor makes the following representations:

5.1 Contractor has familiarized itself with the nature and extent of the Contract Documents, Work, site, locality, and all local conditions and applicable Laws that in any manner may affect cost, schedule, progress, performance or furnishing of the Work.

5.2 Contractor has studied carefully all reports of explorations and tests of subsurface conditions and drawings of physical conditions which are identified in Information to Bidders, as provided in the General Conditions, and accepts the determination set forth in said Section to the extent of the technical data contained in such reports and drawings upon which Contractor is entitled to reply.
5.3 Contractor has obtained and carefully studied all such examinations, investigations, explorations, tests, reports and studies which pertain to the subsurface or physical conditions at or contiguous to the site or otherwise may affect the cost, schedule, progress, performance or furnishing of the Work as Contractor considers necessary for the performance or furnishing of the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents, including specifically the provisions of Article 3 of the General Conditions; and no additional examinations, investigations, explorations, tests, reports, studies or similar information or data are or will be required by Contractor for such purposes.

5.4 Contractor has reviewed and checked all information and data shown or indicated on the Contract Documents with respect to existing Underground Facilities. No additional examinations, investigations, explorations, tests, reports, studies or similar information or data in respect of said Underground Facilities are or will be required by Contractor in order to perform and furnish the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents, including specifically the provisions of Article 3 of the General Conditions.

5.5 Contractor has correlated (or assumes responsibility for correlating) the results of all such observations, examinations, investigations, explorations, tests, reports and studies with the terms and conditions of the Contract Documents.

5.6 Contractor has given Engineer written notice of all conflicts, errors or discrepancies that he (she) has discovered in the Contract Documents and any written resolution thereof is acceptable to Contractor.

5.7 General Responsibility: The Contractor shall at all times during the Contract term remain responsible. The Contractor agrees, if requested by the Commissioner or his or her designee, to present evidence of its continuing legal authority to do business in New York State, integrity, experience, ability, prior performance, and organizational and financial capacity. Additional responsibilities required of the Contractor in order to perform and furnish the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents, are specified within the provisions of Article 5 of the General Conditions.

**ARTICLE 6 - Contract Term**

The number of days within which, or alternatively, the dates by which, the Work, or any specified part thereof, is to be completed (the Contract Times) are set forth as follows:

6.1 The Work will be Substantially Completed within **four hundred and sixty-five (465) calendar days** from the Effective Date of the Agreement, plus twenty (20) calendar days.

6.2 Separable parts of the Work, if specified in an Attachment A to this Agreement, will be Substantially Completed within the number of days stated in Attachment A from the Effective Date of the Agreement, plus twenty (20) calendar days.

6.3 The Work will be completed and ready for final payment in accordance with the General Conditions within **five hundred and five (505) calendar days** from the Effective Date of the Agreement, plus twenty (20) calendar days.
6.4 Department and Contractor recognize that the Contract Time(s) specified in paragraphs 6.1, 6.2 and 6.3 above are of the essence of this Agreement, and that Department may suffer financial loss if the Work is not completed within the Contract Time(s) specified above, plus any extensions thereof allowed in accordance with the General Conditions, as amended or supplemented in the Supplementary Conditions.

6.5 Accordingly, Contractor agrees to forfeit and pay Department as liquidated damages, and not as a penalty, the amount of four thousand five hundred dollars ($4,500.00) for each day that expires after the Contract Time specified in paragraph 6.1 above for Substantial Completion until the Work is Substantially Complete. Contractor further agrees to pay Department as liquidated damages, and not as a penalty, each of the amounts set forth in Attachment A if applicable to this agreement for each day that expires after each of the contract times specified in paragraph 6.2 above for substantial completion until the each of the separable parts of the work is substantially complete. After substantial completion of the work, if Contractor shall neglect, refuse or fail to complete the remaining work within the contract time or any proper extension thereof granted by Department, Contractor shall pay Department as liquidated damages, and not as a penalty, the amount of two thousand seven hundred dollars ($2,700.00) for each day that expires after the Contract Time specified in paragraph 6.3 above for completion and readiness for final payment. These liquidated damages are additive and represent a reasonable estimate, in lieu of any such proof, of Department's extra expenses for Inspection, engineering services, administrative costs, and Interim excess operating costs for each day that expires after the associated Contract Time.

6.6 In addition to the liquidated damage amounts set forth in paragraph 6.5 above, Contractor agrees to pay Department's additional actual damages arising out of the types of expenses itemized below for each day that expires after each of the Contract Times specified in paragraph 6.2 above for Completion of each of the designated parts of the Work until each of the designated parts of the Work achieves the specified completion. These actual damages are additive and shall equal Department's expenditures for costs other than those itemized in paragraph 6.5, including, but not limited to, delay damage settlements or awards related to other separate contracts, delay penalties or fines imposed by regulatory agencies, contract damage and loss of use, excess financing costs, and professional fees and related expenses incurred thereto.

**ARTICLE 7 - Alterations and Omissions**

Department reserves the right, at any time during the progress of the work, to alter the plans or omit any portion of the work as it may deem reasonably necessary for the public interest; making allowances for additions and deductions with compensation made in accordance with the Contract Documents.

**ARTICLE 8 - Determinations as to Variances**

In case of any ambiguity in the Contract Documents, the matter must be immediately submitted to the Representative of Department designated in the Contract Documents, who shall adjust the same, and his (her) decision in relation thereto shall be final and conclusive upon the parties.
ARTICLE 9 - Payment Procedures

Contractor shall submit Applications for Payment on standard form in accordance with the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions, as amended or supplemented in the Supplementary Conditions and in accordance with Section 139-f of the State Finance Law.

9.1 Progress Payments. Contractor shall submit Applications for Payments to Engineer for review no more frequently than monthly in accordance with paragraph 13.2 of the General Conditions from the date when the Contract Time commences to run. Department shall make progress payments against the Contract Price on the basis of Contractor's Applications for Payment as recommended by Engineer as provided below. All progress payments will be calculated on the basis of the progress of the Work measured by the Schedule of Values established pursuant to paragraph 1.4.3 of the General Conditions. Progress payments will also be made for materials pertinent to the Contract in accordance with the General Conditions. Contractor shall provide complete and accurate billing invoices to the Department in order to receive payment. Billing invoices submitted to the Department must contain all information and supporting documentation required by the Contract, the Department, and the State Comptroller.

Payments for expenditures incurred under this contract will be rendered electronically to the Recipient/Contractor/Vendor unless payment by paper check is expressly authorized by the Commissioner of the Department (Commissioner), in the Commissioner's sole discretion, due to extenuating circumstances. Such electronic payment shall be made in accordance with ordinary State procedures and practices. The Recipient/Contractor/Vendor shall comply with the Office of the State Comptroller's (OSC's) procedures to authorize electronic payments. Authorization forms are available at the OSC's website at www.osc.state.ny.us/epay/index.htm, by e-mail at epunit@osc.state.ny.us or by telephone at (518) 474-4032. The Recipient/Contractor/Vendor acknowledges that it will not receive payment under this Contract if it does not comply with the OSC's electronic payment procedures, except where the Commissioner has expressly authorized payment by paper check as set forth above.

9.1.1 Prior to Substantial Completion of the Work, progress payments will be made less five percent (5%) the aggregate of payments (i.e. retainage) previously made and less an amount necessary to satisfy any claims, liens, or judgments against Contractor which have not been suitably discharged.

9.2 Payment upon substantial completion. When the work, or major portions thereof, as contemplated in the Contract Documents, is substantially completed, Contractor shall submit to Department, an Application for Payment in accordance with the General Conditions for the remaining amount of the contract balance or amount due for that major portion completed. Department will pay the remaining Contract balance, or amount due for that major portion completed, less two times the value of any remaining items to be completed and an amount necessary to satisfy any claims, liens, judgments against Contractor which have not been suitably discharged. Payment for remaining items will be made upon their completion.

9.3 Final Payment. Upon final completion of the physical Work and acceptance of the Work in accordance with the General Conditions, Department shall pay the remainder of the Contract Price as recommended by Engineer.
**ARTICLE 10 - No Estimate on Contractor’s Noncompliance**

It is further agreed that so long as Contractor has not complied with any lawful or proper direction concerning the work or material given by Department, Contractor shall not be entitled to have any estimate made for the purpose of payment, nor shall any estimate be rendered on account of work done or material furnished until Contractor has fully and satisfactorily complied with such direction.

**ARTICLE 11 - Delays, Inefficiencies, and Interference**

Contractor agrees to make no claim for any consequential damages attributable to any delays, or act in the performance of this contract which are not directly occasioned by any act or omission to act by the State or any of its representatives. In the event Contractor completes the work prior to the contract completion date set forth in the proposal, Contractor hereby agrees to make no claim for extra costs due to delays, interferences or inefficiencies in the performance of the work.

1) Contractor further agrees that it has included in its bid prices for the various items of the Contract any additional costs for delays, inefficiencies, or interferences affecting the performance or scheduling of Contract work caused by, or attributable to, the following instances:

   a. The work or the presence on the Site of any third party, including but not limited to that of other contractors or personnel employed by the State, or by other public bodies, by railroad, transportation or utility companies or corporations, or by private enterprises, or any delay in progressing such work by any third party.

   b. The existence of any facility or appurtenance owned, operated, or maintained by any third party.

   c. The act, or failure to act, of any other public or governmental body, including, but not limited to, approvals, permits, restrictions, regulations or ordinances.

   d. Restraining orders, injunctions, or judgments issued by a court.

   e. Any labor boycott, strike, picketing or similar situation.

   f. Any shortages of supplies or materials required by the contract work.

   g. Any situation which was, or should have been, within the contemplation of the parties at the time of entering into the contract.

**ARTICLE 12 - Postponement, Suspension or Termination**

12.1 Department shall have the right to postpone, suspend or terminate this Contract in whole or in part for the convenience of Department. If, after termination for cause of Contractor it is determined that no cause existed for termination of Contractor, such termination shall be deemed to have been made for the convenience of Department.

12.2 If this Contract is terminated by Department for convenience or cause, Department shall make payment on an equitable basis for all work performed in accordance with the Contract Documents prior to termination in accordance with paragraphs 12.3 and 12.4 below.
12.3 If this contract is terminated for cause, no payment shall be made for anticipated profit on unperformed work or services. Additionally, Department may adjust any payment due to Contractor at the time of termination to account for any additional costs to Department because of Contractor's default.

12.4 If this contract is terminated for convenience, payment shall be made for any services rendered and expenses incurred prior to the termination, in addition to termination settlement costs reasonably incurred by Contractor which had become firm prior to the termination.

12.5 Upon termination of this Contract under this Agreement, Department may take over the work or may award or negotiate a contract with another party to complete work required by these Contract Documents.

12.6 Termination for Non-Responsibility: Upon written notice to the Contractor, and a reasonable opportunity to be heard with appropriate Department officials or staff, the Contract may be terminated by the Commissioner, or his or her designee, at the Contractor's expense where the Contractor is determined by the Commissioner, or his or her designee, to be non RESPONSIBLE. In such event, the Commissioner, or his or her designee, may complete the contractual requirements in any manner he or she may deem advisable and pursue available legal or equitable remedies for breach.

12.7 Suspension of Work (for Non-Responsibility): The Commissioner, or his or her designee, in his or her sole discretion, reserves the right to suspend any or all activities under this Contract, at any time, when he or she discovers information that calls into question the responsibility of the Contractor. In the event of such suspension, the Contractor will be given written notice outlining the particulars of such suspension. Upon issuance of such notice, the Contractor must comply with the terms of the suspension order. Contract activity may resume at such time as the Commissioner, or his or her designee, issues a written notice authorizing a resumption of performance under the Contract.

ARTICLE 13 – Completion of Physical Work and Final Acceptance

The time within which Department may bring an action on the Contract against Contractor shall be computed from the date of completion of the physical Work. In accordance with Section 138(a) of the State Finance Law, Contractor shall notify Department in writing that the physical Work has been completed. The date of completion must be no more than thirty days prior to the date of the notice. This notice must be delivered personally, or, by either registered or certified mail, return receipt requested, to the exact address given below.

New York State Department of Environmental Conservation
Division of Environmental Remediation
Michael J. Cruden, Director - Remedial Bureau E
625 Broadway, 12th Floor
Albany, New York 12233-7017

If Department disagrees with the date set forth in the notice, it will so advise Contractor in writing within 30 days of receipt of the notice. This notice will be delivered by either registered or certified mail, return receipt requested, to Contractor's address as shown in this Agreement.
If Department accepts Contractor's date of completion of physical Work, Department's final acceptance of work shall be as of that date.

When, in the opinion of Department, Contractor has fully performed the physical Work under the Contract, Department shall notify Contractor in writing of final acceptance.

**ARTICLE 14 - Final Payment**

After the final acceptance of the work, Engineer shall prepare a final agreement of the work performed and the materials placed and shall compute the value of such work and materials under and according to the terms of the contract. This agreement shall be certified, as to its correctness, by Engineer and submitted for final approval to Department. The Representative of Department designated in the Contract Documents shall have the right to reject the whole or any portion of the final agreement, should the said certificate of Engineer be found or known to be inconsistent with the terms of the agreement or otherwise improperly given and upon failure of Contractor to provide requested documentation including but not limited to that regarding payment of wages, suppliers or subcontractors. All certificates upon which partial payments may have been made being merely estimates, shall be subject to correction in the final certificate or final agreement.

**ARTICLE 15 - Disposition of Documents and Data**

Upon final acceptance of work under this Contract or termination of this Contract pursuant to this Agreement, or upon written demand of Department, Contractor shall promptly deliver or otherwise make available to Department all data, drawings, reports, estimates, and such other information and materials as may have been accumulated by Contractor in performing this Contract.

All documents and data are to be submitted in electronic format to the Engineer and Department. The Engineer/Department will not approve a final report unless, and until, all documents and data generated in support of that report have been submitted in accordance with the electronic submission protocols. Information on the format of data submissions can be found at: [http://www.dec.ny.gov/chemical/62440.html](http://www.dec.ny.gov/chemical/62440.html). Information on document submissions can be found at: [http://www.dec.ny.gov/regulations/2586.html](http://www.dec.ny.gov/regulations/2586.html).

**ARTICLE 16 – Applicable Law; Jurisdiction; Service of Legal Process**

Contractor agrees:

16.1 That this Agreement is subject to and governed by all applicable federal and New York State law.

16.2 To procure all necessary licenses and permits.

16.3 To voluntarily and irrevocably submit to the jurisdiction of a New York State Court of competent jurisdiction, to resolve any dispute or controversy arising out of this Contract.

16.4 That the venue of any action at law or in equity commenced against Department arising out of a Project in one of Department's regions, shall be in the county in that Region where Department regional headquarters is located.
16.5 That the service of legal process or any notices in connection with a dispute or controversy arising out of this Contract, by United States registered mail, postage prepaid, addressed to the Designated representative of Department at the address stated in the Contract. Documents shall constitute good and valid service of process upon Engineer.

16.6 To waive any defense based on or alleging lack of jurisdiction, improper venue, or invalid service, if there is compliance with paragraphs 16.3 and 16.4 in this Article.

16.7 This Contract may be presented in court as conclusive evidence of the foregoing agreement.

**ARTICLE 17 - Sales and Use Tax Exemption**

Contractor represents that this project has been bid in such a manner that Department has full advantage of available exemptions from sales and compensating use taxes. Accordingly, Contractor agrees to make all payment requests in a manner which affords Department full advantage of such exemptions. Further, Contractor agrees to complete and to require all subcontractors and material men to complete a Contractor Exempt Purchase Certificate in the name of the New York State Department of Environmental Conservation, which shall be furnished to all persons, firms or corporations from whom they purchase materials, equipment or supplies which are tax exempt by reason of the fact that they will be sold to Department, or will be used as an integral component in the construction, rehabilitation, or improvement of any structure of building required by the Contract Documents.

Contractor agrees to maintain and keep, and to contractually require all subcontractors and material men to maintain and keep, records relating to the tax exemption of material, equipment and Supplies for a period of six years. The six- (6) year period shall commence to run as of the date of final payment.

**ARTICLE 18 - Effective Date**

This Contract and all Contract Documents shall take effect as of the date it is approved and filed by the state Comptroller.

**ARTICLE 19 – Vendor Responsibility**

The Department recommends that vendors file a required Vendor Responsibility Questionnaire online via the New York State VendRep System. To enroll in and use the New York State VendRep System, see the VendRep System Instructions available at: http://www.osc.state.ny.us/vendrep/vendor-index.htm or go directly to the VendRep System online at https://portal.osc.state.ny.us. Vendors must provide their New York State Identification Number when enrolling. To request assignment of a Vendor ID or for VendRep System assistance, contact the Office of the State Comptroller’s Help Desk at 866-370-4672 or 518-408-4672 or by email at: ciohelpdesk@osc.state.ny.us. Vendors opting to complete and submit a paper questionnaire can obtain the appropriate questionnaire from the VendRep website www.osc.state.ny.us/vendrep or may contact the Department of the Office of the State Comptroller’s Help Desk for a copy of the paper form.
ARTICLE 20 - Contract Price

The maximum payment which Department shall pay to Contractor, and which Contractor agrees to accept as full payment for its work under this Agreement, is the total of:

Bid

$ 
(Express Sum in Words)

$ 
(Express Sum in Numbers)

Plus/Minus executed change order(s)
**SIGNATURE PAGE**

_IN WITNESS WHEREOF,_ this Contract has been duly executed by the parties hereto on the day and year appearing following their respective signatures.

_Agency Certification:_ "In addition to the acceptance of this Contract, I also certify that original copies of this signature page will be attached to all other exact copies of this Contract."

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_Contractor Acknowledgement_

State of _____________________) 
                                      ) ss.: 
County of _____________________) 

On the _____ day of ___________ in the year _____, before me, the undersigned, a Notary Public in and for said State, personally appeared _________________________, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

____________________________________ Notary Public

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<th>ATTORNEY GENERAL SIGNATURE</th>
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ATTACHMENT A

SEPARABLE PARTS OF THE WORK

Separable Part A

Separable Part A includes two components. The first component is preparation of the Containment Cell in Area 1 such that it is ready to receive Area 1 Amended Fill. The second component is preparation of the Lockport City Landfill Sediment Cell (LCLSC) such that it is ready to receive Area 2 Amended Fill.

The Area 1 Containment Cell abuts Old Upper Mountain Road and includes Gulf Creek from Station 39+70 to 41+90 and the seven (7) acre Operable Unit No. 1 (OU-1) former dumping site. The Area 2 LCLSC is located on the Lockport City Landfill.

This part includes all specified work required to satisfactorily prepare the portions of the site associated with Separable Part A such that the Area 1 Containment Cell and Area 2 LCLSC are approved to receive Amended Fill (processed and amended sediment). The following work elements are included under Separable Part A:

- Area 1 Containment Cell
  - Site preparation of Area 1 (Upstream) including clearing, erosion and sedimentation controls, site security fencing along Old Upper Mountain Road, see Sheet 6.
  - Construction of the access road at Old Upper Mountain Road (Stations 300+00 to 306+00), see Sheets 7 and 8.
  - Construction of the Area 1 Sediment Processing and Water Treatment Pad, see Sheet 11.
  - Excavation of OU-2 sediment from Station 39+70 to 41+90, see Sheet 12.
  - Water management associated with Separable Part A work.
  - Construction of Buttress (Stations 39+73 to 40+25), see Sheet 15.
  - Construction of Groundwater Underdrain (Stations 40+15 to 42+40), see Sheet 16.
- Area 2 Lockport City Landfill Sediment Cell
  - Installation of the Landfill Access Road, see Sheet 29 and 31
  - Excavation and subgrade preparation of the LCLSC, see Sheet 31
  - Construction of the Area 2 Dewatering, Processing, and Water Treatment Pad, see Sheet 31

Part A work shall be Substantially Completed within two hundred (200) calendar days from the Effective Date of the Agreement plus twenty (20) calendar days. Liquidated damages shall be in the amount of four thousand five hundred dollars ($4,500.00) for each day that expires until the Department considers this separable part of the work satisfactorily complete.

Separable Part A will not be considered substantially complete until the Area 1 Containment Cell and the Area 2 LCLSC are ready to receive processed sediment.
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SECTION VII

Appendices A, B, C & D
APPENDIX A

STANDARD CLAUSES FOR NEW YORK STATE CONTRACTS

PLEASE RETAIN THIS DOCUMENT FOR FUTURE REFERENCE.
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STANDARD CLAUSES FOR NYS CONTRACTS

The parties to the attached contract, license, lease, amendment or other agreement of any kind (hereinafter, "the contract" or "this contract") agree to be bound by the following clauses which are hereby made a part of the contract (the word "Contractor" herein refers to any party other than the State, whether a contractor, licensor, licensee, lessor, lessee or any other party):

**1. EXECUTORY CLAUSE.** In accordance with Section 41 of the State Finance Law, the State shall have no liability under this contract to the Contractor or to anyone else beyond funds appropriated and available for this contract.

**2. NON-ASSIGNMENT CLAUSE.** In accordance with Section 138 of the State Finance Law, this contract may not be assigned by the Contractor or its right, title or interest therein assigned, transferred, conveyed, sublet or otherwise disposed of without the State’s previous written consent, and attempts to do so are null and void. Notwithstanding the foregoing, such prior written consent of an assignment of a contract let pursuant to Article XI of the State Finance Law may be waived at the discretion of the contracting agency and with the concurrence of the State Comptroller’s approval, where the assignment is to the State Comptroller’s approval, where the assignment is due to a reorganization, merger or consolidation of the Contractor’s business entity or enterprise. The State retains its right to approve an assignment and to require that any Contractor demonstrate its responsibility to do business with the State. The Contractor may, however, assign its right to receive payments without the State’s prior written consent unless this contract concerns Certificates of Participation pursuant to Article 5-A of the State Finance Law.

**3. COMPTROLLER’S APPROVAL.** In accordance with Section 112 of the State Finance Law (or, if this contract is with the State University or City University of New York, Section 355 or Section 6218 of the Education Law), if this contract exceeds $50,000 (or the minimum thresholds agreed to by the Office of the State Comptroller for certain S.U.N.Y. and C.U.N.Y. contracts), or if this is an amendment for any amount to a contract which, as so amended, exceeds said statutory amount, or if, by this contract, the State agrees to give something other than money when the value or reasonably estimated value of such consideration exceeds $25,000, it shall not be valid, effective or binding upon the State until it has been approved by the State Comptroller and filed in his office. Comptroller’s approval of contracts let by the Office of General Services is required when such contracts exceed $85,000 (State Finance Law § 163.6-a). However, such pre-approval shall not be required for any contract established as a centralized contract through the Office of General Services or for a purchase order or other transaction issued under such centralized contract.

**4. WORKERS’ COMPENSATION BENEFITS.** In accordance with Section 142 of the State Finance Law, this contract shall be void and of no force and effect unless the Contractor shall provide and maintain coverage during the life of this contract for the benefit of such employees as are required to be covered by the provisions of the Workers’ Compensation Law.

**5. NON-DISCRIMINATION REQUIREMENTS.** To the extent required by Article 15 of the Executive Law (also known as the Human Rights Law) and all other State and Federal statutory and constitutional non-discrimination provisions, the Contractor will not discriminate against any employee or applicant for employment, nor subject any individual to harassment, because of age, race, creed, color, national origin, sexual orientation, gender identity or expression, military status, sex, disability, predisposing genetic characteristics, familial status, marital status, or domestic violence victim status or because the individual has opposed any practices forbidden under the Human Rights Law or has filed a complaint, testified, or assisted in any proceeding under the Human Rights Law. Furthermore, in accordance with Section 220-e of the Labor Law, if this is a contract for the construction, alteration or repair of any public building or public work or for the manufacture, sale or distribution of materials, equipment or supplies, and to the extent that this contract shall be performed within the State of New York, Contractor agrees that neither it nor its subcontractors shall, by reason of race, creed, color, disability, sex, or national origin: (a) discriminate in hiring against any New York State citizen who is qualified and available to perform the work; or (b) discriminate against or intimidate any employee hired for the performance of work under this contract. If this is a building service contract as defined in Section 230 of the Labor Law, then, in accordance with Section 239 thereof, Contractor agrees that neither it nor its subcontractors shall by reason of race, creed, color, national origin, age, sex or disability: (a) discriminate in hiring against any New York State citizen who is qualified and available to perform the work; or (b) discriminate against or intimidate any employee hired for the performance of work under this contract.

**6. WAGE AND HOURS PROVISIONS.** If this is a public work contract covered by Article 8 of the Labor Law or a building service contract covered by Article 9 thereof, neither Contractor's employees nor the employees of its subcontractors may be required or permitted to work more than the number of hours or days stated in said statutes, except as otherwise provided in the Labor Law and as set forth in prevailing wage and supplement schedules issued by the State Labor Department. Furthermore, Contractor and its subcontractors must pay at least the prevailing wage rate and pay or provide the prevailing supplements, including the premium rates for overtime pay, as determined by the State Labor Department in accordance with the Labor Law. Additionally, effective April 28, 2008, if this is a public work contract covered by Article 8 of the Labor Law, the Contractor understands and agrees that the filing of payrolls in a manner consistent with Subdivision 3-
a of Section 220 of the Labor Law shall be a condition precedent to payment by the State of any State approved sums due and owing for work done upon the project.

7. NON-COLLUSIVE BIDDING CERTIFICATION. In accordance with Section 139-d of the State Finance Law, if this contract was awarded based upon the submission of bids, Contractor affirms, under penalty of perjury, that its bid was arrived at independently and without collusion aimed at restricting competition. Contractor further affirms that, at the time Contractor submitted its bid, an authorized and responsible person executed and delivered to the State a non-collusive bidding certification on Contractor's behalf.

8. INTERNATIONAL BOYCOTT PROHIBITION. In accordance with Section 220-f of the Labor Law and Section 139-h of the State Finance Law, if this contract exceeds $5,000, the Contractor agrees, as a material condition of the contract, that neither the Contractor nor any substantially owned or affiliated person, firm, partnership or corporation has participated, is participating, or shall participate in an international boycott in violation of the federal Export Administration Act of 1979 (50 USC App. Sections 2401 et seq.) or regulations thereunder. If such Contractor, or any of the aforesaid affiliates of Contractor, is convicted or is otherwise found to have violated said laws or regulations upon the final determination of the United States Commerce Department or any other appropriate agency of the United States subsequent to the contract's execution, such contract, amendment or modification thereto shall be rendered forfeit and void. The Contractor shall so notify the State Comptroller within five (5) business days of such conviction, determination or disposition of appeal (2 NYCRR § 105.4).

9. SET-OFF RIGHTS. The State shall have all of its common law, equitable and statutory rights of set-off. These rights shall include, but not be limited to, the State's option to withhold for the purposes of set-off any moneys due to the Contractor under this contract up to any amounts due and owing to the State with regard to this contract, any other contract with any State department or agency, including any contract for a term commencing prior to the term of this contract, plus any amounts due and owing to the State for any other reason including, without limitation, tax delinquencies, fee delinquencies or monetary penalties relative thereto. The State shall exercise its set-off rights in accordance with normal State practices including, in cases of set-off pursuant to an audit, the finalization of such audit by the State agency, its representatives, or the State Comptroller.

10. RECORDS. The Contractor shall establish and maintain complete and accurate books, records, documents, accounts and other evidence directly pertinent to performance under this contract (hereinafter, collectively, the "Records"). The Records must be kept for the balance of the calendar year in which they were made and for six (6) additional years thereafter. The State Comptroller, the Attorney General and any other person or entity authorized to conduct an examination, as well as the agency or agencies involved in this contract, shall have access to the Records during normal business hours at an office of the Contractor within the State of New York or, if no such office is available, at a mutually agreeable and reasonable venue within the State, for the term specified above for the purposes of inspection, auditing and copying. The State shall take reasonable steps to protect from public disclosure any of the Records which are exempt from disclosure under Section 87 of the Public Officers Law (the "Statute") provided that: (i) the Contractor shall timely inform an appropriate State official, in writing, that said records should not be disclosed; and (ii) said records shall be sufficiently identified; and (iii) designation of said records as exempt under the Statute is reasonable. Nothing contained herein shall diminish, or in any way adversely affect, the State's right to discovery in any pending or future litigation.

11. IDENTIFYING INFORMATION AND PRIVACY NOTIFICATION. (a) Identification Number(s). Every invoice or New York State Claim for Payment submitted to a New York State agency by a payee, for payment for the sale of goods or services or for transactions (e.g., leases, easements, licenses, etc.) related to real or personal property must include the payee's identification number. The number is any or all of the following: (i) the payee’s Federal employer identification number, (ii) the payee’s Federal social security number, and/or (iii) the payee’s Vendor Identification Number assigned by the Statewide Financial System. Failure to include such number or numbers may delay payment. Where the payee does not have such number or numbers, the payee, on its invoice or Claim for Payment, must give the reason or reasons why the payee does not have such number or numbers.

(b) Privacy Notification. (1) The authority to request the above personal information from a seller of goods or services or a lessor of real or personal property, and the authority to maintain such information, is found in Section 5 of the State Tax Law. Disclosure of this information by the seller or lessor to the State is mandatory. The principal purpose for which the information is collected is to enable the State to identify individuals, businesses and others who have been delinquent in filing tax returns or may have understated their tax liabilities and to generally identify persons affected by the taxes administered by the Commissioner of Taxation and Finance. The information will be used for tax administration purposes and for any other purpose authorized by law. (2) The personal information is requested by the purchasing unit of the agency contracting to purchase the goods or services or lease the real or personal property covered by this contract or lease. The information is maintained in the Statewide Financial System by the Vendor Management Unit within the Bureau of State Expenditures, Office of the State Comptroller, 110 State Street, Albany, New York 12236.

12. EQUAL EMPLOYMENT OPPORTUNITIES FOR MINORITIES AND WOMEN. In accordance with Section 312 of the Executive Law and 5 NYCRR Part 143, if this contract is: (i) a written agreement or purchase order instrument, providing for a total expenditure in excess of
$25,000.00, whereby a contracting agency is committed to expend or does expend funds in return for labor, services, supplies, equipment, materials or any combination of the foregoing, to be performed for, or rendered or furnished to the contracting agency; or (ii) a written agreement in excess of $100,000.00 whereby a contracting agency is committed to expend or does expend funds for the acquisition, construction, demolition, replacement, major repair or renovation of real property and improvements thereon; or (iii) a written agreement in excess of $100,000.00 whereby the owner of a State assisted housing project is committed to expend or does expend funds in return for labor, services, supplies, equipment, materials or any combination of the foregoing, to be performed for, or rendered or furnished to the contracting agency; or (ii) a written agreement in excess of $25,000.00 whereby a contracting agency is committed to expend or does expend funds in return for labor, services, supplies, equipment, materials or any combination of the foregoing, to be performed for, or rendered or furnished to the contracting agency; or (ii) a written agreement in excess of $100,000.00 whereby a contracting agency is committed to expend or does expend funds for the acquisition, construction, demolition, replacement, major repair or renovation of real property and improvements thereon for such project, then the following shall apply and by signing this agreement the Contractor certifies and affirms that it is Contractor’s equal employment opportunity policy that:

(a) The Contractor will not discriminate against employees or applicants for employment because of race, creed, color, national origin, sex, age, disability or marital status, shall make and document its conscientious and active efforts to employ and utilize minority group members and women in its work force on State contracts and will undertake or continue existing programs of affirmative action to ensure that minority group members and women are afforded equal employment opportunities without discrimination. Affirmative action shall mean recruitment, employment, job assignment, promotion, upgradings, demotion, transfer, layoff, or termination and rates of pay or other forms of compensation;

(b) at the request of the contracting agency, the Contractor shall request each employment agency, labor union, or authorized representative of workers with which it has a collective bargaining or other agreement or understanding, to furnish a written statement that such employment agency, labor union or representative will not discriminate on the basis of race, creed, color, national origin, sex, age, disability or marital status and that such union or representative will affirmatively cooperate in the implementation of the Contractor's obligations herein; and

(c) the Contractor shall state, in all solicitations or advertisements for employees, that, in the performance of the State contract, all qualified applicants will be afforded equal employment opportunities without discrimination because of race, creed, color, national origin, sex, age, disability or marital status.

Contractor will include the provisions of "a," "b," and "c" above, in every subcontract over $25,000.00 for the construction, demolition, replacement, major repair, renovation, planning or design of real property and improvements thereon (the "Work") except where the Work is for the beneficial use of the Contractor. Section 312 does not apply to: (i) work, goods or services unrelated to this contract; or (ii) employment outside New York State. The State shall consider compliance by a contractor or subcontractor with the requirements of any federal law concerning equal employment opportunity which effectuates the purpose of this clause. The contracting agency shall determine whether the imposition of the requirements of the provisions hereof duplicate or conflict with any such federal law and if such duplication or conflict exists, the contracting agency shall waive the applicability of Section 312 to the extent of such duplication or conflict. Contractor will comply with all duly promulgated and lawful rules and regulations of the Department of Economic Development’s Division of Minority and Women's Business Development pertaining hereto.

13. CONFLICTING TERMS. In the event of a conflict between the terms of the contract (including any and all attachments thereto and amendments thereof) and the terms of this Appendix A, the terms of this Appendix A shall control.

14. GOVERNING LAW. This contract shall be governed by the laws of the State of New York except where the Federal supremacy clause requires otherwise.

15. LATE PAYMENT. Timeliness of payment and any interest to be paid to Contractor for late payment shall be governed by Article 11-A of the State Finance Law to the extent required by law.

16. NO ARBITRATION. Disputes involving this contract, including the breach or alleged breach thereof, may not be submitted to binding arbitration (except where statutorily authorized), but must, instead, be heard in a court of competent jurisdiction of the State of New York.

17. SERVICE OF PROCESS. In addition to the methods of service allowed by the State Civil Practice Law & Rules ("CPLR"), Contractor hereby consents to service of process upon it by registered or certified mail, return receipt requested. Service hereunder shall be complete upon Contractor's actual receipt of process or upon the State's receipt of the return thereof by the United States Postal Service as refused or undeliverable. Contractor must promptly notify the State, in writing, of each and every change of address to which service of process can be made. Service by the State to the last known address shall be sufficient. Contractor will have thirty (30) calendar days after service hereunder is complete in which to respond.

18. PROHIBITION ON PURCHASE OF TROPICAL HARDWOODS. The Contractor certifies and warrants that all wood products to be used under this contract award will be in accordance with, but not limited to, the specifications and provisions of Section 165 of the State Finance Law, (Use of Tropical Hardwoods) which prohibits purchase and use of tropical hardwoods, unless specifically exempted, by the State or any governmental agency or political subdivision or public benefit corporation. Qualification for an exemption under this law will be the responsibility of the contractor to establish to meet with the approval of the State.

In addition, when any portion of this contract involving the use of woods, whether supply or installation, is to be performed by
any subcontractor, the prime Contractor will indicate and certify in the submitted bid proposal that the subcontractor has been informed and is in compliance with specifications and provisions regarding use of tropical hardwoods as detailed in § 165 State Finance Law. Any such use must meet with the approval of the State; otherwise, the bid may not be considered responsive. Under bidder certifications, proof of qualification for exemption will be the responsibility of the Contractor to meet with the approval of the State.

19. MACBRIE FAIR EMPLOYMENT PRINCIPLES. In accordance with the MacBride Fair Employment Principles (Chapter 807 of the Laws of 1992), the Contractor hereby stipulates that the Contractor either (a) has no business operations in Northern Ireland, or (b) shall take lawful steps in good faith to conduct any business operations in Northern Ireland in accordance with the MacBride Fair Employment Principles (as described in Section 165 of the New York State Finance Law), and shall permit independent monitoring of compliance with such principles.

20. OMNIBUS PROCUREMENT ACT OF 1992. It is the policy of New York State to maximize opportunities for the participation of New York State business enterprises, including minority- and women-owned business enterprises as bidders, subcontractors and suppliers on its procurement contracts.

Information on the availability of New York State subcontractors and suppliers is available from:

NYS Department of Economic Development
Division for Small Business
Albany, New York 12245
Telephone: 518-292-5100
Fax: 518-292-5884
email: opa@esd.ny.gov

A directory of certified minority- and women-owned business enterprises is available from:

NYS Department of Economic Development
Division of Minority and Women's Business Development
633 Third Avenue
New York, NY 10017
212-803-2414
email: mwbecertification@esd.ny.gov
https://ny.newnycontracts.com/FrontEnd/VendorSearchPublic.asp

The Omnibus Procurement Act of 1992 (Chapter 844 of the Laws of 1992, codified in State Finance Law § 139-i and Public Authorities Law § 2879(3)(n)–(p)) requires that by signing this bid proposal or contract, as applicable, Contractors certify that whenever the total bid amount is greater than $1 million:

(a) The Contractor has made reasonable efforts to encourage the participation of New York State Business Enterprises as suppliers and subcontractors, including certified minority- and women-owned business enterprises, on this project, and has retained the documentation of these efforts to be provided upon request to the State;

(b) The Contractor has complied with the Federal Equal Opportunity Act of 1972 (P.L. 92-261), as amended;

(c) The Contractor agrees to make reasonable efforts to provide notification to New York State residents of employment opportunities on this project through listing any such positions with the Job Service Division of the New York State Department of Labor, or providing such notification in such manner as is consistent with existing collective bargaining contracts or agreements. The Contractor agrees to document these efforts and to provide said documentation to the State upon request; and

(d) The Contractor acknowledges notice that the State may seek to obtain offset credits from foreign countries as a result of this contract and agrees to cooperate with the State in these efforts.

21. RECIPROCITY AND SANCTIONS PROVISIONS. Bidders are hereby notified that if their principal place of business is located in a country, nation, province, state or political subdivision that penalizes New York State vendors, and if the goods or services they offer will be substantially produced or performed outside New York State, the Omnibus Procurement Act 1994 and 2000 amendments (Chapter 684 and Chapter 383, respectively, codified in State Finance Law § 165(6) and Public Authorities Law § 2879(5)(e)) require that they be denied contracts which they would otherwise obtain.

NOTE: As of October 2019, the list of discriminatory jurisdictions subject to this provision includes the states of South Carolina, Alaska, West Virginia, Wyoming, Louisiana and Hawaii.

22. COMPLIANCE WITH BREACH NOTIFICATION AND DATA SECURITY LAWS. Contractor shall comply with the provisions of the New York State Information Security Breach and Notification Act (General Business Law § 899-aa and State Technology Law § 208) and commencing March 21, 2020 shall also comply with General Business Law § 899-bb.

23. COMPLIANCE WITH CONSULTANT DISCLOSURE LAW. If this is a contract for consulting services, defined for purposes of this requirement to include analysis, evaluation, research, training, data processing, computer programming, engineering, environmental, health, and mental health services, accounting, auditing, paralegal, legal or similar services, then, in accordance with Section 163(4)(g) of the State Finance Law (as amended by Chapter 10 of the Laws of 2006), the Contractor shall timely, accurately and properly comply with the requirement to submit an annual employment report for the contract to the agency that awarded the contract, the Department of Civil Service and the State Comptroller.
24. PROCUREMENT LOBBYING. To the extent this agreement is a "procurement contract" as defined by State Finance Law §§ 139-j and 139-k, by signing this agreement the contractor certifies and affirms that all disclosures made in accordance with State Finance Law §§ 139-j and 139-k are complete, true and accurate. In the event such certification is found to be intentionally false or intentionally incomplete, the State may terminate the agreement by providing written notification to the Contractor in accordance with the terms of the agreement.

25. CERTIFICATION OF REGISTRATION TO COLLECT SALES AND COMPENSATING USE TAX BY CERTAIN STATE CONTRACTORS, AFFILIATES AND SUBCONTRACTORS.

To the extent this agreement is a contract as defined by Tax Law § 5-a, if the contractor fails to make the certification required by Tax Law § 5-a or if during the term of the contract, the Department of Taxation and Finance or the covered agency, as defined by Tax Law § 5-a, discovers that the certification, made under penalty of perjury, is false, then such failure to file or false certification shall be a material breach of this contract and this contract may be terminated, by providing written notification to the Contractor in accordance with the terms of the agreement, if the covered agency determines that such action is in the best interest of the State.

26. IRAN DIVESTMENT ACT. By entering into this Agreement, Contractor certifies in accordance with State Finance Law § 165-a that it is not on the “Entities Determined to be Non-Responsive Bidders/Offerers pursuant to the New York State Iran Divestment Act of 2012” (“Prohibited Entities List”) posted at: https://ogs.ny.gov/list-entities-determined-be-non-responsive-biddersofferers-pursuant-nys-iran-divestment-act-2012

Contractor further certifies that it will not utilize on this Contract any subcontractor that is identified on the Prohibited Entities List. Contractor agrees that should it seek to renew or extend this Contract, it must provide the same certification at the time the Contract is renewed or extended. Contractor also agrees that any proposed Assignee of this Contract will be required to certify that it is not on the Prohibited Entities List before the contract assignment will be approved by the State.

During the term of the Contract, should the state agency receive information that a person (as defined in State Finance Law § 165-a) is in violation of the above-referenced certifications, the state agency will review such information and offer the person an opportunity to respond. If the person fails to demonstrate that it has ceased its engagement in the investment activity which is in violation of the Act within 90 days after the determination of such violation, then the state agency shall take such action as may be appropriate and provided for by law, rule, or contract, including, but not limited to, imposing sanctions, seeking compliance, recovering damages, or declaring the Contractor in default.

The state agency reserves the right to reject any bid, request for assignment, renewal or extension for an entity that appears on the Prohibited Entities List prior to the award, assignment, renewal or extension of a contract, and to pursue a responsibility review with respect to any entity that is awarded a contract and appears on the Prohibited Entities list after contract award.

27. ADMISSIBILITY OF REPRODUCTION OF CONTRACT. Notwithstanding the best evidence rule or any other legal principle or rule of evidence to the contrary, the Contractor acknowledges and agrees that it waives any and all objections to the admissibility into evidence at any court proceeding or to the use at any examination before trial of an electronic reproduction of this contract, in the form approved by the State Comptroller, if such approval was required, regardless of whether the original of said contract is in existence.
APPENDIX B

Standard Clauses for All New York State Department of Environmental Conservation Contracts

The parties to the attached contract, license, lease, grant, amendment or other agreement of any kind (hereinafter "the contract" or "this contract") agree to be bound by the following clauses which are hereby made a part of the contract. The word "Contractor" herein refers to any party to the contract, other than the New York State Department of Environmental Conservation (hereinafter "Department").

I. Postponement, suspension, abandonment or termination by the Department:
The Department shall have the right to postpone, suspend, abandon or terminate this contract, and such actions shall in no event be deemed a breach of contract. In the event of any termination, postponement, delay, suspension or abandonment, the Contractor shall immediately stop work, take steps to incur no additional obligations, and to limit further expenditures. Within 15 days of receipt of notice, the Contractor shall deliver to the Department all data, reports, plans, or other documentation related to the performance of this contract, including but not limited to source codes and specifications, guarantees, warranties, as-built plans and shop drawings. In any of these events, the Department shall make settlement with the Contractor upon an equitable basis as determined by the Department which shall fix the value of the work which was performed by the Contractor prior to the postponement, suspension, abandonment or termination of this contract. This clause shall not apply to this contract if the contract contains other provisions applicable to postponement, suspension or termination of the contract.

II. Indemnification and Hold harmless
The Contractor agrees that it will indemnify and save harmless the Department and the State of New York from and against all losses from claims, demands, payments, suits, actions, recoveries and judgments of every nature and description brought or recovered against it by reason of any omission or tortious act of the Contractor, its agents, employees, suppliers or subcontractors in the performance of this contract. The Department and the State of New York may retain such monies from the amount due Contractor as may be necessary to satisfy any claim for damages, costs and the like, which is asserted against the Department and/or the State of New York.

III. Conflict of Interest
(a) Organizational Conflict of Interest: To the best of the Contractor's knowledge and belief, the Contractor warrants that there are no relevant facts or circumstances which could give rise to an organizational conflict of interest, as herein defined, or that the Contractor has disclosed all such relevant information to the Department.

(1) An organizational conflict of interest exists when the nature of the work to be performed under this contract may, without some restriction on future activities, impair or appear to impair the Contractor's objectivity in performing the work for the Department.

(2) The Contractor agrees that if an actual, or potential organizational conflict of interest is discovered at any time after award, whether before or during performance, the Contractor will immediately make a full disclosure in writing to the Department. This disclosure shall include a description of actions which the Contractor has taken or proposes to take, after consultation with the Department, to avoid, mitigate, or minimize the actual or potential conflict.

(b) Personal Conflict of Interest: The following provisions with regard to management or professional level employee personnel performing under this contract shall apply until the earlier of the termination date of the affected employee(s) or the duration of the contract.

(1) A personal conflict of interest is defined as a relationship of an employee, subcontractor employee, or consultant with an entity that may impair or appear to impair the objectivity of the employee, subcontractor employee, or consultant in performing the contract work. The Contractor agrees to notify the Department immediately of any actual or potential personal conflict of interest with regard to any such person working on or having access to information regarding this contract, as soon as Contractor becomes aware of such conflict. The Department will notify the Contractor of the appropriate action to be taken.

(2) The Contractor agrees to advise all management or professional level employees involved in the work of this contract, that they must report any personal conflicts of interest to the Contractor. The Contractor must then advise the Department which will advise the Contractor of the appropriate action to be taken.

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(3) Unless waived by the Department, the Contractor shall certify annually that, to the best of the Contractor's knowledge and belief, all actual, apparent or potential conflicts of interest, both personal and organizational, as defined herein, have been reported to the Department. Such certification must be signed by a senior executive of the Contractor and submitted in accordance with instructions provided by the Department. Along with the annual certification, the Contractor shall also submit an update of any changes in any conflict of interest plan submitted with its proposal for this contract. The initial certification shall cover the one-year period from the date of contract award, and all subsequent certifications shall cover successive annual periods thereafter. The certification is to be submitted no later than 45 days after the close of the previous certification period covered.

(4) In performing this contract, the Contractor recognizes that its employees may have access to data, either provided by the Department or first generated during contract performance, of a sensitive nature which should not be released without Department approval. If this situation occurs, the Contractor agrees to obtain confidentiality agreements from all affected employees working on requirements under this contract including subcontractors and consultants. Such agreements shall contain provisions which stipulate that each employee agrees not to disclose, either in whole or in part, to any entity external to the Department, Department of Health or the New York State Department of Law, any information or data provided by the Department or first generated by the Contractor under this contract, any site-specific cost information, or any enforcement strategy without first obtaining the written permission of the Department. If a Contractor, through an employee or otherwise, is subpoenaed to testify or produce documents, which could result in such disclosure, the Contractor must provide immediate advance notification to the Department so that the Department can authorize such disclosure or have the opportunity to take action to prevent such disclosure. Such agreements shall be effective for the life of the contract and for a period of five (5) years after completion of the contract.

(c) Remedies - The Department may terminate this contract in whole or in part, if it deems such termination necessary to avoid an organizational or personal conflict of interest, or an unauthorized disclosure of information. If the Contractor fails to make required disclosures or misrepresents relevant information to the Department, the Department may terminate the contract, or pursue such other remedies as may be permitted by the terms of Clause I of this Appendix or other applicable provisions of this contract regarding termination.

(d) The Contractor will be ineligible to make a proposal or bid on a contract for which the Contractor has developed the statement of work or the solicitation package.

(e) The Contractor agrees to insert in each subcontract or consultant agreement placed hereunder (except for subcontracts or consultant agreements for well drilling, fence erecting, plumbing, utility hookups, security guard services, or electrical services) provisions which shall conform substantially to the language of this clause, including this paragraph (e), unless otherwise authorized by the Department.

If this is a contract for work related to action at an inactive hazardous waste site, the following paragraph shall apply to those Contractors whose work requires the application of professional judgment: It does not apply to construction contracts.

(f) Due to the scope and nature of this contract, the Contractor shall observe the following restrictions on future hazardous waste site contracting for the duration of the contract.

(1) The Contractor, during the life of the work assignment and for a period of three (3) years after the completion of the work assignment, agrees not to enter into a contract with or to represent any party with respect to any work relating to remedial activities or work pertaining to a site where the Contractor previously performed work for the Department under this contract without the prior written approval of the Department.

(2) The Contractor agrees in advance that if any bids/proposals are submitted for any work for a third party that would require written approval of the Department prior to entering into a contract because of the restrictions of this clause, then the bids/proposals are submitted at the Contractor's own risk, and no claim shall be made against the Department to recover bid/proposal costs as a direct cost whether the request for authorization to enter into the contract is denied or approved.

IV. Requests for Payment All requests for payment by the Contractor must be submitted on forms supplied and approved by the Department. Each payment request must contain such items of information and supporting documentation as are required by the Department, and shall be all-inclusive for the period of time covered by the payment request.
V. Compliance with Federal requirements

To the extent that federal funds are provided to the Contractor or used in paying the Contractor under this contract, the Contractor agrees that it will comply with all applicable federal laws and regulations, including but not limited to those laws and regulations under which the Federal funds were authorized. The Contractor further agrees to insert in any subcontract hereunder, provisions which shall conform substantially to the language of this clause.

VI. Independent Contractor

The Contractor shall have the status of an independent contractor. Accordingly, the Contractor agrees that it will conduct itself in a manner consistent with such status, and that it will neither hold itself out as, nor claim to be, an officer or employee of the Department by reason of this contract. It further agrees that it will not make any claim, demand or application to the Department for any right or privilege applicable to an officer or employee of the Department, including but not limited to worker's compensation coverage, unemployment insurance benefits, social security coverage, or retirement membership or credit.

VII. Compliance with applicable laws

(a) Prior to the commencement of any work under this contract, the Contractor is required to meet all legal requirements necessary in the performance of the contract. This includes but is not limited to compliance with all applicable federal, state and local laws and regulations promulgated thereunder. It is the Contractor's responsibility to obtain any necessary permits, or other authorizations. By signing this contract, the Contractor affirmatively represents that it has complied with said laws, unless it advises the Department otherwise, in writing. The Department signs this contract in reliance upon this representation.

(b) During the term of this contract, and any extensions thereof, the Contractor must remain in compliance with said laws. A failure to notify the Department of noncompliance of which the Contractor was or should have been aware, may be considered a material breach of this contract.

VIII. Dispute Resolution

The parties agree to the following steps, or as many as are necessary to resolve disputes between the Department and the Contractor.

(a) The Contractor specifically agrees to submit, in the first instance, any dispute relating to this contract to the designated individual, who shall render a written decision and furnish a copy thereof to the Contractor.

(1) The Contractor must request such decision in writing no more than fifteen days after it knew or should have known of the facts which are the basis of the dispute.

(2) The decision of the designated individual shall be the final DEC determination, unless the Contractor files a written appeal of that decision with the designated appeal individual (“DAI”) within twenty days of receipt of that decision.

(b) Upon receipt of the written appeal, the DAI, will review the record and decision. Following divisional procedures in effect at that time, the DAI will take one of the following actions, with written notice to the Contractor.

(1) Remand the matter to the program staff for further negotiation or information if it is determined that the matter is not ripe for review; or
(2) Determine that there is no need for further action, and that the determination of the designated individual is confirmed; or
(3) Make a determination on the record as it exists.

(c) The decision of the DAI shall be the final DEC decision unless the Contractor files a written appeal of that decision with the Chair of the Contract Review Committee (“CRC”) within twenty days of receipt of that decision.

The designated individual to hear disputes is:

Michael Cruden, BPM Bureau Director
(Name and Title)
NYS Dept of Env. Conservation - Env. Remediation
625 Broadway, 12th Floor, Albany, NY 12233-7012
(Address)
(518) 402-9814
(Telephone)

The designated appeal individual to review decisions is:

Andrew Guglielmi, Division Director
(Name and Title)
NYS Dept of Env. Conservation - Env. Remediation
625 Broadway, 12th Floor, Albany, NY 12233-7012
(Address)
(518) 402-9202
(Telephone)

The Chair of the Contract Review Committee is:

Department of Environmental Conservation
Nancy W. Lussier Chair
Contract Review Committee
625 Broadway, 10th Floor
Albany, NY 12233-5010
Telephone: (518) 402-9228

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(d) Upon receipt of the written appeal, the Chair of the CRC, in consultation with the members of the CRC and the Office of General Counsel, will take one of the following actions, or a combination thereof, with written notice to the Contractor.

1. Remand the matter to program staff for additional fact finding, negotiation, or other appropriate action; or

2. Adopt the decision of the DAI; or

3. Consider the matter for review by the CRC in accordance with its procedures.

(e) Following a decision to proceed pursuant to (d) 3, above, the Chair of the CRC shall convene a proceeding in accordance with the CRC's established contract dispute resolution guidelines. The proceeding will provide the Contractor with an opportunity to be heard.

(f) Following a decision pursuant to (d) 2 or (d) 3, the CRC shall make a written recommendation to the Assistant Commissioner for Administration who shall render the final DEC determination.

(g) At any time during the dispute resolution process, and upon mutual agreement of the parties, the Office of Hearings and Mediation Services (OHMS) may be requested to provide mediation services or other appropriate means to assist in resolving the dispute. Any findings or recommendations made by the OHMS will not be binding on either party.

(h) Final DEC determinations shall be subject to review only pursuant to Article 78 of the Civil Practice Law and Rules.

(i) Pending final determination of a dispute hereunder, the Contractor shall proceed diligently with the performance of the Contract in accordance with the decision of the designated individual. Nothing in this Contract shall be construed as making final the decision of any administrative officer upon a question of law.

(j) Notwithstanding the foregoing, at the option of the Contractor, the following shall be subject to review by the CRC: Disputes arising under Article 15-A of the Executive Law (Minority and Women Owned Business participation), the Department's determination with respect to the adequacy of the Contractor's Utilization Plan, or the Contractor's showing of good faith efforts to comply therewith. A request for a review before the CRC should be made, in writing, within twenty days of receipt of the Department's determination.

(k) The CRC will promptly convene a review in accordance with Article 15-A of the Executive Law and the regulations promulgated thereunder.

IX. Labor Law Provisions

(a) When applicable, the Contractor shall post, in a location designated by the Department, a copy of the New York State Department of Labor schedules of prevailing wages and supplements for this project, a copy of all re-determinations of such schedules for the project, the Workers' Compensation Law Section 51 notice, all other notices required by law to be posted at the site, the Department of Labor notice that this project is a public work project on which each worker is entitled to receive the prevailing wages and supplements for their occupation, and all other notices which the Department directs the Contractor to post. The Contractor shall provide a surface for such notices which is satisfactory to the Department. The Contractor shall maintain such notices in a legible manner and shall replace any notice or schedule which is damaged, defaced, illegible or removed for any reason. Contractor shall post such notices before commencing any work on the site and shall maintain such notices until all work on the site is complete.

(b) When appropriate, contractor shall distribute to each worker for this Contract a notice, in a form provided by the Department, that this project is a public work project on which each worker is entitled to receive the prevailing wage and supplements for the occupation at which he or she is working. Worker includes employees of Contractor and all Subcontractors and all employees of suppliers entering the site. Such notice shall be distributed to each worker before they start performing any work of this contract. At the time of distribution, Contractor shall have each worker sign a statement, in a form provided by the Department, certifying that the worker has received the notice required by this section, which signed statement shall be maintained with the payroll records required by the following paragraph (c).

(c) Contractor shall maintain on the site the original certified payrolls or certified transcripts thereof which Contractor and all of its Subcontractors are required to maintain pursuant to the New York Labor Law Section 220. Contractor shall maintain with the payrolls or transcripts thereof, the statements signed by each worker pursuant to paragraph (b).

(d) Within thirty days of issuance of the first payroll, and every thirty days thereafter, the Contractor and every subcontractor must submit a transcript of the original payroll to the Department, which transcript must be subscribed and affirmed as true under penalty of perjury.
X. **Offset** In accordance with State Law, the Department has the authority to administratively offset any monies due it from the Contractor, from payments due to the Contractor under this contract. The Department may also (a) assess interest or late payment charges, and collection fees, if applicable; (b) charge a fee for any dishonored check; (c) refuse to renew certain licenses and permits.

XI. **Tax Exemption** Pursuant to Tax Law Section 1116, the State is exempt from sales and use taxes. A standard state voucher is sufficient evidence thereof. For federal excise taxes, New York's registration Number 1474026K covers tax-free transactions under the Internal Revenue Code.

XII. **Litigation Support** In the event that the Department becomes involved in litigation related to the subject matter of this contract, the Contractor agrees to provide background support and other litigation support, including but not limited to depositions, appearances, and testimony. Compensation will be negotiated and based on rates established in the contract, or as may otherwise be provided in the contract.

XIII. **Equipment** Any equipment purchased with funds provided under this contract, shall remain the property of the Department, unless otherwise provided in the contract. The Contractor shall be liable for all costs for maintaining the property in good, usable condition. It shall be returned to the Department upon completion of the contract, in such condition, unless the Department elects to sell the equipment to the Contractor, upon mutually agreeable terms.

XIV. **Inventions or Discoveries** Any invention or discovery first made in performance of this Contract shall be the property of the Department, unless otherwise provided in the contract. The Contractor agrees to provide the Department with any and all materials related to this property. At the Department's option, the Contractor may be granted a non-exclusive license.

XV. **Patent and Copyright Protection**
If any patented or copyrighted material is involved in or results from the performance of this Contract, this Article shall apply.

(a) The Contractor shall, at its expense, defend any suit instituted against the Department and indemnify the Department against any award of damages and costs made against the Department by a final judgment of a court of last resort based on the claim that any of the products, services or consumable supplies furnished by the Contractor under this Contract infringes any patent, copyright or other proprietary right; provided the Department gives the Contractor:

(1) prompt written notice of any action, claim or threat of infringement suit, or other suit, and

(2) the opportunity to take over, settle or defend such action at the Contractor's sole expense, and

(3) all available information, assistance and authority necessary to the action, at the Contractor's sole expense.

(b) If the use of any item(s) or parts thereof is held to infringe a patent or copyright and its use is enjoined, or Contractor believes it will be enjoined, the Contractor shall have the right, at its election and expense to take action in the following order of precedence:

(1) procure for the Department the right to continue using the same item or parts thereof;

(2) modify the same so that it becomes non-infringing and of at least the same quality and performance;

(3) replace the item(s) or parts thereof with noninfringing items of at least the same quality and performance;

(4) if none of the above remedies are available, discontinue its use and eliminate any future charges or royalties pertaining thereto. The Contractor will buy back the infringing product(s) at the State's book value, or in the event of a lease, the parties shall terminate the lease. If discontinuation or elimination results in the Contractor not being able to perform the Contract, the Contract shall be terminated.

(c) In the event that an action at law or in equity is commenced against the Department arising out of a claim that the Department's use of any item or material pursuant to or resulting from this Contract infringes any patent, copyright or proprietary right, and such action is forwarded by the Department to the Contractor for defense and indemnification pursuant to this Article, the Department shall copy all pleadings and documents forwarded to the Contractor together with the forwarding correspondence and a copy of this Contract to the Office of the Attorney General of the State of New York. If upon receipt of such request for defense, or at any time thereafter, the Contractor is of the opinion that the allegations in such action, in whole or in part, are not covered by the indemnification set forth in this Article, the Contractor shall immediately notify the Department and the Office of the Attorney General of the State of New York in writing and shall specify to what
extent the Contractor believes it is and is not obligated to defend and indemnify under the terms and conditions of this Contract. The Contractor shall in such event protect the interests of the Department and State of New York and secure a continuance to permit the State of New York to appear and defend its interests in cooperation with Contractor as is appropriate, including any jurisdictional defenses which the Department and State shall have.

(d) The Contractor shall, however, have no liability to the Department under this Article if any infringement is based upon or arises out of: (1) compliance with designs, plans, or specifications furnished by or on behalf of the Department as to the items; (2) alterations of the items by the Department; (3) failure of the Department to use updated items provided by the Contractor for avoiding infringement; (4) use of items in combination with apparatus or devices not delivered by the Contractor; (5) use of items in a manner for which the same were neither designed nor contemplated; or (6) a patent or copyright in which the Department or any affiliate or subsidiary of the Department has any direct or indirect interest by license or otherwise.

(e) The foregoing states the Contractor's entire liability for, or resulting from, patent or copyright infringement or claim thereof.

XVI. Force Majeure The term Force Majeure shall include acts of God, work stoppages due to labor disputes or strikes, fires, explosions, epidemics, riots, war rebellion, sabotage or the like. If a failure of or delay in performance by either party results from the occurrence of a Force Majeure event, the delay shall be excused and the time for performance extended by a period equivalent to the time lost because of the Force majeure event, if and to the extent that:

(a) The delay or failure was beyond the control of the party affected and not due to its fault or negligence; and

(b) The delay or failure was not extended because of the affected party's failure to use all reasonable diligence to overcome the obstacle or to resume performance immediately after such obstacle was overcome; and

(c) The affected party provides notice within (5) days of the onset of the event, that it is invoking the protection of this provision.

XVII. Freedom of Information Requests The Contractor agrees to provide the Department with any records which must be released in order to comply with a request pursuant to the Freedom of Information Law. The Department will provide the contractor with an opportunity to identify material which may be protected from release and to support its position.

XVIII. Precedence In the event of a conflict between the terms of this Appendix B and the terms of the Contract (including any and all attachments thereto and amendments thereof, but not including Appendix A), the terms of this Appendix B shall control. In the event of a conflict between the terms of this Appendix B, and the terms of Appendix A, the terms of Appendix A shall control.

XIX. Article 15-Requirements

PARTICIPATION BY MINORITY GROUP MEMBERS AND WOMEN WITH RESPECT TO STATE CONTRACTS: REQUIREMENTS AND PROCEDURES

(a) General Provisions

(1) The Department is required to implement the provisions of New York State Executive Law Article 15-A and 5 NYCRR Parts 142-144 (“MWBE Regulations”) for all State contracts as defined therein, with a value (1) in excess of $25,000 for labor, services, equipment, materials, or any combination of the foregoing or (2) in excess of $100,000 for real property renovations and construction.

(2) The Contractor to the subject contract (the “Contractor” and the “Contract,” respectively) agrees, in addition to any other nondiscrimination provision of the Contract and at no additional cost to the New York State Department (the “Department”, to fully comply and cooperate with the Department in the implementation of New York State Executive Law Article 15-A. These requirements include equal employment opportunities for minority group members and women (“EEO”) and contracting opportunities for certified minority and women-owned business enterprises (“MWBEs”). Contractor’s demonstration of “good faith efforts” pursuant to 5 NYCRR §142.8 shall be a part of these requirements. These provisions shall be deemed supplementary to, and not in lieu of, the nondiscrimination provisions required by New York State Executive Law Article 15 (the “Human Rights Law”) or other applicable federal, state or local laws.

(3) Failure to comply with all of the requirements herein may result in a finding of non-responsiveness, non-responsibility and/or a breach of contract, leading to the withholding of funds or such other actions, liquidated damages pursuant to Section VII of this Article or enforcement proceedings as allowed by the Contract.

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(b) Contract Goals
(1) For purposes of this procurement, the Department hereby establishes an overall goal of 30% for Minority and Women-Owned Business Enterprises (“MWBE”) participation, (based on the current availability of qualified MBEs and WBEs).

(2) For purposes of providing meaningful participation by MWBEs on the Contract and achieving the Contract Goals established in Section II-A hereof, Contractor should reference the directory of New York State Certified MWBEs found at the following internet address:

https://ny.newnycontracts.com

Additionally, the Contractor is encouraged to contact the Division of Minority and Woman Business Development ((518) 292-5250; (212) 803-2414; or (716) 846-8200) to discuss additional methods of maximizing participation by MWBEs on the Contract.

(3) Where MWBE goals have been established herein, pursuant to 5 NYCRR §142.8, Contractor must document “good faith efforts” to provide meaningful participation by MWBEs as subcontractors or suppliers in the performance of the Contract. In accordance with Section 316-a of Article 15-A and 5 NYCRR §142.13, the Contractor acknowledges that if Contractor is found to have willfully and intentionally failed to comply with the MWBE participation goals set forth in the Contract, such a finding constitutes a breach of contract and the Contractor shall be liable to the Department for liquidated or other appropriate damages, as set forth herein.

(c) Equal Employment Opportunity (EEO)

(1) Contractor agrees to be bound by the provisions of Article 15-A and the MWBE Regulations promulgated by the Division of Minority and Women's Business Development of the Department of Economic Development (the “Division”). If any of these terms or provisions conflict with applicable law or regulations, such laws and regulations shall supersede these requirements. Contractor shall comply with the following provisions of Article 15-A:

   (i) Contractor and Subcontractors shall undertake or continue existing EEO programs to ensure that minority group members and women are afforded equal employment opportunities without discrimination because of race, creed, color, national origin, sex, age, disability or marital status. For these purposes, EEO shall apply in the areas of recruitment, employment, job assignment, promotion, upgrading, demotion, transfer, layoff, or termination and rates of pay or other forms of compensation.

   (ii) The Contractor shall submit an EEO policy statement to the Department within seventy two (72) hours after the date of the notice by Department to award the Contract to the Contractor.

   (iii) If Contractor or Subcontractor does not have an existing EEO policy statement, the Department may provide the Contractor or Subcontractor a model statement. This statement can be found at the link provided in Section 8.

   (iv) The Contractor’s EEO policy statement shall include the following language:

     a. The Contractor will not discriminate against any employee or applicant for employment because of race, creed, color, national origin, sex, age, disability or marital status, will undertake or continue existing EEO programs to ensure that minority group members and women are afforded equal employment opportunities without discrimination, and shall make and document its conscientious and active efforts to employ and utilize minority group members and women in its work force.

     b. The Contractor shall state in all solicitations or advertisements for employees that, in the performance of the contract, all qualified applicants will be afforded equal employment opportunities without discrimination because of race, creed, color, national origin, sex, age, disability or marital status.

     c. The Contractor shall request each employer Department, labor union, or authorized representative of workers with which it has a collective bargaining or other agreement or understanding, to furnish a written statement that such employer Department, labor union, or representative will not discriminate on the basis of race, creed, color, national origin, sex age, disability or marital status and that such union or representative will affirmatively cooperate in the
implementation of the Contractor's obligations herein.

d. The Contractor will include the provisions of Subdivisions (a) through (c) of this Subsection 4 and Paragraph “E” of this Section III, which provides for relevant provisions of the Human Rights Law, in every subcontract in such a manner that the requirements of the subdivisions will be binding upon each subcontractor as to work in connection with the Contract.

e. **EEO Contract Goals** for the purposes of this procurement, the Department hereby establishes a goal of **10%** Minority Labor Force Participation, **10%** Female Labor Force Participation.

(2) **Staffing Plan Form**

To ensure compliance with this Section, the Contractor shall submit a staffing plan to document the composition of the proposed workforce to be utilized in the performance of the Contract by the specified categories listed, including ethnic background, gender, and Federal occupational categories. Contractors shall complete the Staffing plan form and submit it as part of their bid or proposal or within a reasonable time, but no later than the time of award of the contract.

(3) **Workforce Employment Utilization Report Form** (“Workforce Report”)

(i) Once a contract has been awarded and during the term of Contract, Contractor is responsible for updating and providing notice to the Department of any changes to the previously submitted Staffing Plan. This information is to be submitted on a quarterly basis during the term of the Contract to report the actual workforce utilized in the performance of the Contract by the specified categories listed including ethnic background, gender, and Federal occupational categories. The Workforce Report must be submitted to report this information.

(ii) Separate forms shall be completed by Contractor and any subcontractor performing work on the Contract.

(iii) In limited instances, Contractor may not be able to separate out the workforce utilized in the performance of the Contract from Contractor's and/or subcontractor's total workforce. When a separation can be made, Contractor shall submit the Workforce Report and indicate that the information provided related to the actual workforce utilized on the Contract. When the workforce to be utilized on the contract cannot be separated out from Contractor's and/or subcontractor's total workforce, Contractor shall submit the Workforce Report and indicate that the information provided is Contractor's total workforce during the subject time frame, not limited to work specifically under the Contract.

(2) Contractor shall comply with the provisions of the Human Rights Law, all other State and Federal statutory and constitutional non-discrimination provisions. Contractor and subcontractors shall not discriminate against any employee or applicant for employment because of race, creed (religion), color, sex, national origin, sexual orientation, military status, age, disability, predisposing genetic characteristic, marital status or domestic violence victim status, and shall also follow the requirements of the Human Rights Law with regard to non-discrimination on the basis of prior criminal conviction and prior arrest.

(d) **MWBE Utilization Plan**

(1) The Contractor represents and warrants that Contractor has submitted an MWBE Utilization Plan either prior to, or at the time of, the execution of the contract.

(2) Contractor agrees to use such MWBE Utilization Plan for the performance of MWBEs on the Contract pursuant to the prescribed MWBE goals set forth in Section III-A of this Appendix.

(3) Contractor further agrees that a failure to submit and/or use such MWBE Utilization Plan shall constitute a material breach of the terms of the Contract. Upon the occurrence of such a material breach, Department shall be entitled to any remedy provided herein, including but not limited to, a finding of Contractor non-responsiveness.

(e) **Waivers**

(1) For Waiver Requests Contractor should use Waiver Request Form.
(2) If the Contractor, after making good faith efforts, is unable to comply with MWBE goals, the Contractor may submit a Request for Waiver form documenting good faith efforts by the Contractor to meet such goals. If the documentation included with the waiver request is complete, the Department shall evaluate the request and issue a written notice of acceptance or denial within twenty (20) days of receipt.

(4) If the Department, upon review of the MWBE Utilization Plan and updated Quarterly MWBE Contractor Compliance Reports determines that Contractor is failing or refusing to comply with the Contract goals and no waiver has been issued in regards to such non-compliance, the Department may issue a notice of deficiency to the Contractor. The Contractor must respond to the notice of deficiency within seven (7) business days of receipt. Such response may include a request for partial or total waiver of MWBE Contract Goals.

(f) Quarterly MWBE Contractor Compliance Report

Contractor is required to submit a Quarterly MWBE Contractor Compliance Report Form to the Department by the 10th day following each end of quarter over the term of the Contract documenting the progress made towards achievement of the MWBE goals of the Contract.

(g) Liquidated Damages - MWBE Participation

(1) Where Department determines that Contractor is not in compliance with the requirements of the Contract and Contractor refuses to comply with such requirements, or if Contractor is found to have willfully and intentionally failed to comply with the MWBE participation goals, Contractor shall be obligated to pay to the Department liquidated damages.

(2) Such liquidated damages shall be calculated as an amount equaling the difference between:

(i) All sums identified for payment to MWBEs had the Contractor achieved the contractual MWBE goals; and

(ii) All sums actually paid to MWBEs for work performed or materials supplied under the Contract.

(3) In the event a determination has been made which requires the payment of liquidated damages and such identified sums have not been withheld by the Department, Contractor shall pay such liquidated damages to the Department within sixty (60) days after they are assessed by the Department unless prior to the expiration of such sixtieth day, the Contractor has filed a complaint with the Director of the Division of Minority and Woman Business Development pursuant to Subdivision 8 of Section 313 of the Executive Law in which event the liquidated damages shall be payable if Director renders a decision in favor of the Department.

(h) Forms

The following forms referenced in Article XVIII 3-A-3, 3B, 3C and 5A can be found at http://www.dec.ny.gov/about/48854.html
Appendix C

Standard Clauses for Ethics in all NYSDEC Contracts

The parties to the attached contract, license, lease, grant, amendment or other agreement of any kind (hereinafter "the contract" or "this contract") agree to be bound by the following clauses which are hereby made a part of the contract. The word “Offeror” herein refers to any party submitting an application, bid, proposal, or other documents in response to this procurement. The word "Contractor" herein refers to any party to the contract, other than the New York State Department of Environmental Conservation (hereinafter "Department").

I. Conflict of Interest

A. Procurement Phase:

1. An Offeror will disclose any existing or contemplated relationship with any other person or entity, including relationships with any member, shareholders of 5% or more, parent, subsidiary, or affiliated firm, which would constitute an actual or potential conflict of interest or appearance of impropriety, relating to other clients/customers of the Offeror or former officers and employees of the Agencies and their Affiliates, in connection with the Offeror rendering services enumerated in this procurement. If a conflict does or might exist, the Offeror will describe how the Offeror would eliminate or prevent it. This description will include, but not be limited to what procedures will be followed to detect, notify the Agencies of, and resolve any such conflicts.

2. The Offeror must disclose whether it, or any of its members, shareholders of 5% or more, parents, affiliates, or subsidiaries, have been the subject of any investigation or disciplinary action by the New York State Joint Commission on Public Ethics or its predecessor State entities (collectively, “Commission”), and if so, a brief description must be included in the Offeror’s response indicating how any matter before the Commission was resolved or whether it remains unresolved.

3. The Offeror/Contractor has provided a form (Vendor Assurance of No Conflict of Interest or Detrimental Effect attached hereto as Attachment 4), signed by an authorized executive or legal representative attesting that the Offeror’s/Contractor’s performance of the services does not and will not create a conflict of interest with, nor position the Offeror/Contractor to breach any other contract currently in force with the State of New York, that the Offeror/Contractor will not act in any manner that is detrimental to any State project on which the Offeror/Contractor is rendering services.

B. Contract Phase:

1. The Contractor hereby reaffirms the attestations made in its proposal and covenants and represents that there is and shall be no actual or potential conflict of interest that could prevent the Contractor's satisfactory or ethical performance of duties required to be performed pursuant to the terms of this contract. The Contractor shall have a duty to notify the Department immediately of any actual or potential conflicts of interest.
2. In conjunction with any subcontract under this contract, the Contractor shall obtain and deliver to the Department, prior to entering into a subcontract, a Vendor Assurance of No Conflict of Interest or Detrimental Effect form, signed by an authorized executive or legal representative of the subcontractor. The Contractor shall also require in any subcontracting agreement that the subcontractor, in conjunction with any further subcontracting agreement, obtain and deliver to the Department a signed and completed Vendor Assurance of No Conflict of Interest or Detrimental Effect form for each of its subcontractors prior to entering into a subcontract.

3. The Department and the Contractor recognize that conflicts may occur in the future because the Contractor may have existing or establish new relationships. The Department will review the nature of any relationships and reserves the right to terminate this contract for any reason, or for cause, if, in the judgment of the Department, a real or potential conflict of interest cannot be cured.

4. In performing this contract, the Contractor recognizes that its employees may have access to data, either provided by the Department or first generated during contract performance, of a sensitive nature which should not be released without prior Department approval. If this situation occurs, the Contractor agrees to obtain confidentiality agreements from all affected employees working on requirements under this contract including subcontractors and consultants. Such agreements shall contain provisions which stipulate that each employee agrees not to disclose, either in whole or in part, to any entity external to the Department, Department of Health or the New York State Department of Law, any information or data provided by the Department or first generated by the Contractor under this contract, any site-specific cost information, or any enforcement strategy without first obtaining the written permission of the Department. If a Contractor, through an employee or otherwise, is subpoenaed to testify or produce documents, which could result in such disclosure, the Contractor must provide immediate advance notification to the Department so that the Department can authorize such disclosure or have the opportunity to take action to prevent such disclosure. Such agreements shall be effective for the life of the contract and for a period of five (5) years after completion of the contract.

5. The Department may terminate this contract in whole or in part, if it deems such termination necessary to avoid a conflict of interest, or an unauthorized disclosure of information. If the Contractor fails to make required disclosures or misrepresents relevant information to the Department, the Department may terminate the contract, or pursue such other remedies as may be allowed by law or other applicable provisions of this contract regarding termination.

6. The Contractor will be ineligible to make a proposal or bid on a contract for which the Contractor has developed the statement of work or the solicitation package.

7. **If this is a contract for work related to action at an inactive hazardous waste site, the following paragraph shall apply to those Contractors whose work requires the application of professional judgment: It does not apply to construction contracts.**

Due to the scope and nature of this contract, the Contractor shall observe the following restrictions on future hazardous waste site contracting for the duration of the contract.

a. The Contractor, during the life of the work assignment and for a period of three (3) years after the completion of the work assignment, agrees not to enter into a contract with or to
represent any party with respect to any work relating to remedial activities or work pertaining to a site where the Contractor previously performed work for the Department under this contract without the prior written approval of the Department.

b. The Contractor agrees in advance that if any bids/proposals are submitted for any work for a third party that would require written approval of the Department prior to entering into a contract because of the restrictions of this clause, then the bids/proposals are submitted at the Contractor's own risk, and no claim shall be made against the Department to recover bid/proposal costs as a direct cost whether the request for authorization to enter into the contract is denied or approved.

II. PUBLIC OFFICERS LAW

Contractors, consultants, vendors, and subcontractors may hire former State Agency or Authority employees. However, as a general rule and in accordance with New York Public Officers Law, former employees of the State Agency or Authority may neither appear nor practice before the State Agency or Authority, nor receive compensation for services rendered on a matter before the State Agency or Authority, for a period of two years following their separation from State Agency or Authority service. In addition, former State Agency or Authority employees are subject to a “lifetime bar” from appearing before the State Agency or Authority or receiving compensation for services regarding any transaction in which they personally participated or which was under their active consideration during their tenure with the State Agency or Authority.

III. ETHICS REQUIREMENTS

The Contractor and its subcontractors shall not engage any person who is, or has been at any time, in the employ of the State to perform services in violation of the provisions of the New York Public Officers Law, other laws applicable to the service of State employees, and the rules, regulations, opinions, guidelines or policies promulgated or issued by the New York State Joint Commission on Public Ethics, or its predecessors (collectively, the “Ethics Requirements”).

The Contractor certifies that all of its employees and those of its subcontractors who are former employees of the State and who are assigned to perform services under this contract shall be assigned in accordance with all Ethics Requirements. During the Term, no person who is employed by the Contractor or its subcontractors and who is disqualified from providing services under this contract pursuant to any Ethics Requirements may share in any net revenues of the Contractor or its subcontractors derived from this Contract. The Contractor shall identify and provide the State with notice of those employees of the Contractor and its Subcontractors who are former employees of the State that will be assigned to perform services under this Contract, and make sure that such employees comply with all applicable laws and prohibitions.

The State may request that the Contractor provide it with whatever information the State deems appropriate about each such person’s engagement, work cooperatively with the State to solicit advice from the New York State Joint Commission on Public Ethics, and, if deemed appropriate by the State, instruct any such person to seek the opinion of the New York State Joint Commission on Public Ethics. The State shall have the right to withdraw or withhold approval of any subcontractor if utilizing such subcontractor for any work performed hereunder would be in conflict with any of the Ethics Requirements. The State
shall have the right to terminate this Contract at any time if any work performed hereunder is in conflict with any of the Ethics Requirements.

IV. SUBCONTRACTING

The Contractor agrees not to subcontract any of its services, unless as indicated in its proposal, without the prior written approval of the Department. Approval shall not be unreasonably withheld upon receipt of written request to subcontract.

The Contractor may arrange for a portion/s of its responsibilities under this Contract to be subcontracted to qualified, responsible subcontractors, subject to prior approval of the Department. If the Contractor decides to subcontract a portion of the services, the subcontractors must be clearly identified and the nature and extent of its involvement in and/or proposed performance under this contract must be fully explained by the Contractor to the Department. As part of this explanation, the subcontractor must submit to the Department a completed Vendor Assurance of No Conflict of Interest or Detrimental Effect form, as required by the Contractor prior to execution of this contract.

The Contractor retains ultimate responsibility for all services performed under the contract.

All subcontracts shall be in writing and shall contain provisions, which are functionally identical to, and consistent with, the provisions of this contract including, but not limited to, the body of this contract, Appendix A – Standard Clauses for New York State Contracts, Appendix B – Standard Clauses for All New York State Department of Environmental Conservation Contracts, Appendix C - Standard Clauses for Ethics in all New York State Department of Environmental Conservation Contracts, and the Solicitation Document.

Unless waived in writing by the Department, all subcontracts between the Contractor and subcontractors shall expressly name the State, through the Department, as the sole intended third party beneficiary of such subcontract. The Department reserves the right to review and approve or reject any subcontract, as well as any amendment to said subcontract(s), and this right shall not make the Department or the State a party to any subcontract or create any right, claim, or interest in the subcontractor or proposed subcontractor against the Department.

The Department reserves the right, at any time during the term of the contract, to verify that the written subcontract between the Contractor and subcontractors is in compliance with all of the provisions of this Section and any subcontract provisions contained in this contract. The Contractor shall give the Department immediate notice in writing of the initiation of any legal action or suit which relates in any way to a subcontract with a subcontractor or which may affect the performance of the Contractor’s duties under the contract. Any subcontract shall not relieve the Contractor in any way of any responsibility, duty and/or obligation of the contract.

If at any time during performance under this contract total compensation to a subcontractor exceeds or is expected to exceed $100,000, or as otherwise requested by the Department that subcontractor shall be required to submit and certify a Vendor Responsibility Questionnaire.
APPENDIX D

Participation Opportunities for New York State Certified Service-Disabled Veteran Owned Businesses (SDVOB)

PLEASE RETAIN THIS DOCUMENT FOR FUTURE REFERENCE
Appendix E

PARTICIPATION OPPORTUNITIES FOR NEW YORK STATE
CERTIFIED SERVICE-DISABLED VETERAN-OWNED BUSINESSES

Article 17-B of the New York State Executive Law provides for more meaningful participation in public procurement by certified Service-Disabled Veteran-Owned Businesses (“SDVOB”), thereby further integrating such businesses into New York State’s economy. The Department recognizes the need to promote the employment of service-disabled veterans and to ensure that certified service-disabled veteran-owned businesses have opportunities for maximum feasible participation in the performance of Department contracts.

In recognition of the service and sacrifices made by service-disabled veterans and in recognition of their economic activity in doing business in New York State, Bidders are expected to consider SDVOBs in the fulfillment of the requirements of the Contract. Such participation may be as subcontractors or suppliers, as protégés, or in other partnering or supporting roles.

The following link includes additional information regarding the responsibilities associates with the Department’s SDVOB program: http://www.dec.ny.gov/about/108183.html

I. Contract Goals

   A. The Department hereby establishes an overall goal of 6% for SDVOB participation, based on the current availability of qualified SDVOBs. For purposes of providing meaningful participation by SDVOBs, the Bidder/Contractor should contact the Department’s SDVOB lead with questions regarding compliance with SDVOB participation goals at:

   Mark Krisanda
   Contract Management Specialist/SDVOB Program Lead
   Bureau of Contract and Grant Development
   New York State Department of Environmental Conservation
   625 Broadway – 10th Floor, Albany, NY 12233-1080
   Phone #: (518) 402-9240
   sdvob@dec.ny.gov

   or reference the directory of New York State Certified SDVOBs found at: https://ogs.ny.gov/veterans/Docs/CertifiedNYS_SDVOB.pdf. Additionally, following Contract execution, Contractor is encouraged to contact the Office of General Services’ Division of Service-Disabled Veterans’ Business Development at 518-474-2015 or VeteransDevelopment@ogs.ny.gov to discuss additional methods of maximizing participation by SDVOBs on the Contract.

   B. Contractor must document “good faith efforts” to provide meaningful participation by SDVOBs as subcontractors or suppliers in the performance of the Contract (see clause IV below).
II. SDVOB Utilization Plan

A. Pursuant to 9 NYCRR § 252.2(i), Contractors are required to submit a completed SDVOB Utilization Plan on Form SDVOB 100 prior to contract execution.

B. The Utilization Plan shall list the SDVOBs that the Bidder intends to use in the performance of the Contract, a description of the work that the Bidder intends the SDVOB to perform to meet the goals on the Contract, the estimated dollar amounts to be paid to an SDVOB, or, if not known, an estimate of the percentage of Contract work the SDVOB will perform. By signing the Utilization Plan, the Bidder acknowledges that making false representations or providing information that shows a lack of good faith as part of, or in conjunction with, the submission of a Utilization Plan is prohibited by law and may result in penalties including, but not limited to, termination of a contract for cause, loss of eligibility to submit future bids, and/or withholding of payments. Any modifications or changes to the agreed participation by SDVOBs after the Contract award and during the term of the Contract must be reported on a revised SDVOB Utilization Plan and submitted to the Department.

C. The Department will review the submitted SDVOB Utilization Plan and advise the Bidder/Contractor of the Department’s acceptance or issue a notice of deficiency within 20 days of receipt.

D. If a notice of deficiency is issued, Bidder/Contractor agrees that it shall respond to the notice of deficiency, within seven (7) business days of receipt, by submitting to the Department, a written remedy in response to the notice of deficiency. If the written remedy that is submitted is not timely or is found by the Department to be inadequate, the Department shall notify the Bidder/Contractor and direct the Bidder/Contractor to submit, within five business days of notification by the Department, a request for a partial or total waiver of SDVOB participation goals on SDVOB 200. Failure to file the waiver form in a timely manner may be grounds for disqualification of the bid or proposal.

E. The Department may disqualify a Bidder’s bid or proposal as being non-responsive under the following circumstances:

   (a) If a Bidder fails to submit an SDVOB Utilization Plan;
   (b) If a Bidder fails to submit a written remedy to a notice of deficiency;
   (c) If a Bidder fails to submit a request for waiver; or
   (d) If the Department determines that the Bidder has failed to document good faith efforts.

F. If awarded a Contract, Contractor certifies that it will follow the submitted SDVOB Utilization Plan for the performance of SDVOBs on the Contract pursuant to the prescribed SDVOB contract goals set forth above.
G. Contractor further agrees that a failure to use SDVOBs as agreed in the Utilization Plan shall constitute a material breach of the terms of the Contract. Upon the occurrence of such a material breach, the Department shall be entitled to any remedy provided herein, including but not limited to, a finding of Contractor non-responsibility.

III. Request for Waiver

A. **Prior to submission of a request for a partial or total waiver, Bidder/Contractor shall speak to the Department’s Designated Contacts for guidance.**

B. Pursuant to 9 NYCRR § 252.2(m), a Bidder/Contractor that is able to document good faith efforts to meet the goal requirements, as set forth in clause IV below, may submit a request for a partial or total waiver on Form SDVOB 200, accompanied by supporting documentation. A Bidder may submit the request for waiver at the same time it submits its SDVOB Utilization Plan. If a request for waiver is submitted with the SDVOB Utilization Plan and is not accepted by the Department at that time, the provisions of clauses II (C), (D) & (E) will apply. If the documentation included with the Bidder’s/Contractor’s waiver request is complete, the Department shall evaluate the request and issue a written notice of acceptance or denial within 20 days of receipt.

C. Contractor shall attempt to utilize, in good faith, the SDVOBs identified within its SDVOB Utilization Plan, during the performance of the Contract. Requests for a partial or total waiver of established goal requirements made subsequent to Contract award may be made at any time during the term of the Contract to the Department, but must be made no later than prior to the submission of a request for final payment on the Contract.

D. If the Department, upon review of the SDVOB Utilization Plan and Monthly SDVOB Compliance Report (SDVOB 101) determines that Contractor is failing or refusing to comply with the contract goals and no waiver has been issued in regards to such non-compliance, the Department may issue a notice of deficiency to the Contractor. The Contractor must respond to the notice of deficiency within seven business days of receipt. Such response may include a request for partial or total waiver of SDVOB contract goals.

Waiver requests should be sent to:

Mark Krisanda  
Contract Management Specialist/SDVOB Program Lead  
Bureau of Contract and Grant Development  
New York State Department of Environmental Conservation  
625 Broadway – 10th Floor, Albany, NY 12233-1080  
Phone #: (518) 402-9240  
sdvob@dec.ny.gov
IV. Required Good Faith Efforts

Pursuant to 9 NYCRR § 252.2(n), Contractors must document their good faith efforts toward utilizing SDVOBs on the Contract. Evidence of required good faith efforts shall include, but not be limited to, the following:

(1) Copies of solicitations to SDVOBs and any responses thereto.

(2) Explanation of the specific reasons each SDVOB that responded to Bidders / Contractors' solicitation was not selected.

(3) Information describing the specific steps undertaken to reasonably structure the Contract scope of work for the purpose of subcontracting with, or obtaining supplies from, certified SDVOBs.

(4) Other information deemed relevant to the waiver request.

V. Quarterly SDVOB Contractor Compliance Report

Pursuant to 9 NYCRR § 252.2(q), the Contractor is required to report quarterly SDVOB Contractor Compliance to the Department during the term of the Contract for the preceding month’s activity, documenting progress made towards achieving the Contract SDVOB goals. This information must be submitted using form SDVOB 101 distributed by the Department’s SDVOB program and should be completed by the Contractor and submitted to the Department, by the 20th day of October, January, April, and July during the term of the Contract, for that quarter’s activity to:

Mark Krisanda
Contract Management Specialist/SDVOB Program Lead
Bureau of Contract and Grant Development
New York State Department of Environmental Conservation
625 Broadway – 10th Floor, Albany, NY 12233-1080
Phone #: (518) 402-9240
sdvob@dec.ny.gov

VI. Breach of Contract and Damages

Pursuant to 9 NYCRR § 252.2(s), any Contractor found to have willfully and intentionally failed to comply with the SDVOB participation goals set forth in the Contract, shall be found to have breached the contract and Contractor shall pay damages as set forth therein.
SECTION VIII

General Conditions

ARTICLE 1 - Preliminary Matters

Copies of Documents:

1.1 Department shall furnish to Contractor without charge up to five (5) copies of the Contract Documents. Additional copies of the Contract Documents will be furnished, upon request, at the cost of reproduction.

Preconstruction Conference:

1.2 No later than twenty (20) calendar days after the Effective Date of the Agreement, but before Contractor starts the Work, a conference will be held on a date and at a location set by Department to:

1.2.1 Review, item by item, the requirements of this Article;

1.2.2 Review the qualifications of Contractor’s resident superintendent and the qualifications of any Subcontractors and Suppliers of Contractor;

1.2.3 Discuss Contractor’s plans for complying with the requirements of Article 5 – Contractor’s Responsibilities of the General Conditions;

1.2.4 Formalize procedures for processing of Administrative Agreements, Payment Applications, Shop Drawings and other submittals, Change Orders and Proposed Change Orders, and Contractor requests for clarifications and interpretation of Contract Documents;

1.2.5 Establish a working understanding among the parties as to the Work; and

1.2.6 Discuss any conflicts, errors or discrepancies that Contractor has discovered by review of the Contract Documents.

Commencement of Contract Time and Start of Work at Site:

1.3 Before starting, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures shown thereon and all applicable field measurements. Contractor shall immediately report in writing to Engineer any conflict, error or discrepancy which Contractor may discover and shall obtain a written interpretation or clarification from Engineer before proceeding with any Work affected thereby.

1.4 Before a Contractor may commence Work on the site but no later than ten (10) calendar days after Notice of Award, Contractor shall submit to Engineer for review and acceptance:
1.4.1 An interim progress schedule indicating Contractor’s anticipated schedule for the Work for the first three (3) months in detail and for the remainder of the Work in summary form. If Contractor doesn’t intend to perform Work on the date when Contract Time commences, Contractor must notify Department as soon as possible in writing when work will commence so inspection services can be scheduled to minimize cost to the Department. The interim progress schedule shall include the information specified in paragraphs 1.4.2 and 1.4.3.

1.4.2 An interim schedule of Shop Drawing, material, soil characteristic, sample collection and analytical test result submissions covering the various stages of Work detailed in the first three (3) months of the interim Progress Schedule; and

1.4.3 An interim schedule of values on the form provided by Engineer covering the various stages of Work detailed in the first three (3) months of the interim Progress Schedule. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work which will be confirmed in writing by Contractor at the time of submission.

1.5 Contractor shall start to perform the Work on the date specified in the Notice to Proceed in a manner consistent with the Contract Documents. No Work shall be done prior to the date specified in the Notice to Proceed unless written permission to do so is given by the Department to the Contractor.

**Finalizing Interim Schedules:**

1.6 Contractor shall submit a proposed progress schedule to finalize the interim schedules submitted in accordance with paragraph 1.4 and the requirements of the Progress Schedule Section of the Standard Specification no later than twenty (20) days after starting work at the site. The progress schedule shall be acceptable to Engineer and Department as providing an orderly progression of the Work to completion within the Contract Time, but such acceptance will not relieve Contractor from full responsibility for the progress or scheduling of the Work. The schedule of Shop Drawing, material, soil characteristic, sample collection, and analytical test results submissions shall be acceptable to Engineer and Department as providing a workable arrangement for processing the submissions. The schedule of values shall be acceptable to Engineer and Department as to form and substance. The first Application for Payment shall not be processed unless Contractor has submitted acceptable schedules.

**ARTICLE 2 - Contract Documents: Intent, Amending, Reuse**

**Intent:**

2.1 The Contract Documents comprise the entire agreement between Department and Contractor concerning the Work. The Contract Documents are complementary; what is called for by one is as binding as if called for by all.

2.2 The Contract Documents describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents. Any work, materials or equipment that may be necessary to satisfactorily complete the contract must be supplied whether or not specifically called for. When words which have a well-known technical or trade meaning are used to describe Work, materials or equipment, such words shall be interpreted in accordance with that meaning. Reference to standard specifications, manuals or codes of any technical society,
organization or association, or to the Laws of any governmental authority, whether such reference
be specific or by implication, shall mean the latest standard specification, manual, code or Laws
in effect at the time of opening of Bids (or, on the Effective Date of the Agreement if there were
no Bids), even though reference may be specifically made to an earlier standard. If there is any
conflict or discrepancy between standard specifications, manuals, or codes of any technical
society, organization or association, or between Laws, the Engineer shall determine which shall
apply and shall be binding on Contractor. Contractor has a duty to comply with the latest standard
specification, manual, code, or Laws in effect at the time of opening of bids, without any increase
in Contract Price or extension in Contract Time. Clarifications and interpretations of the Contract
Documents shall be issued by Engineer as provided in paragraph 8.4. However, no provision of
any referenced standard specification, manual or code (whether or not specifically incorporated
by reference in the Contract Documents) shall be effective to change the duties and
responsibilities of Department, Contractor or Engineer or any of their consultants, agents or
employees from those set forth in the Contract Documents. If there is any conflict or discrepancy
between the provisions of the Contract Documents and any such referenced standard
specification, manual, or code of any technical society, organization or association, the provisions
of the Contract Documents will take precedence.

2.3 If during the performance of the Work, Contractor finds a conflict, error or discrepancy in the
Contract Documents, Contractor shall so report to Engineer in writing at once and before
proceeding with the Work affected thereby, and shall obtain a written interpretation or clarification.

Engineer will promptly investigate the matter and respond to Contractor. Until such interpretation
or clarification is obtained from Engineer, any Work done by Contractor after the discovery of such
a conflict, error or discrepancy, which is directly or indirectly affected by same, will be at
Contractor’s own risk and Contractor shall bear all cost arising therefrom. In resolving such
conflicts, errors or discrepancies, the Contract Documents shall be given preference in the
following order:

2.3.1 First, in accordance with the order of preference stated in the conflicting parts of the
Contract Documents as provided by Article 4 of the Agreement;

2.3.2 In all cases, figured dimensions shall govern over scaled dimensions, but Work not
dimensioned shall be as directed, and Work not particularly shown, identified, sized, or
located shall be the same as similar parts that are shown or specified. Detail Drawings
shall govern over general Drawings, larger scale Drawings take precedence over
smaller scale Drawings, Change Order or Proposed Change Order Drawings govern
over Contract Drawings, and approved Shop Drawings govern over Contract Drawings.
Specifications shall govern as to products, execution and workmanship, and Drawings
shall govern as to locations, dimensions, or quantities to be furnished. Further, in all
cases where specifications, notes or details in two or more Specifications, or in two or
more Drawings, conflict, the requirement calling for the larger quantities, or higher quality
product or workmanship shall prevail and be binding on Contractor, unless otherwise
directed by Engineer.

Amending and Supplemeting Contract Documents:

2.4 The Contract Documents may be amended to provide for additions, deletions and revisions in the
Work or to modify the terms and conditions thereof in one or more of the following ways as defined
in Section II, "Terms and Definitions."
2.4.1 An Administrative Agreement,

2.4.2 A Change Order (pursuant to Article 9), or

2.4.3 A Proposed Change Order signed by Department (pursuant to Article 9).

Contract Price and Contract Time may only be changed by a Change Order.

2.5 In addition, the requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, not involving an adjustment in Contract Price or Contract Time, in one or more of the following ways:

2.5.1 A Field Order (pursuant to Article 8.4),

2.5.2 Engineer’s approval of a Shop Drawing or sample (pursuant to Article 5.23 thru 5.29), or

2.5.3 Engineer’s written interpretation or clarification (pursuant to Article 8.3).

Reuse of Documents:

2.6 Neither Contractor nor any Subcontractor or Supplier or other person or organization shall have or acquire any title to or ownership rights in any of the Drawings, specifications or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or Design Engineer; and they shall not reuse any of them on extensions of the Project or any other project without the written consent of Engineer, Design Engineer, and Department.

ARTICLE 3 - Availability of Lands; Physical Conditions; Reference Points

Availability of Lands:

3.1 As indicated in the Contract Documents, Department shall make available the lands upon which the Work is to be performed, rights-of-way and easements for access thereto, and such other lands as are designated for the use of Contractor. Easements or other authority for permanent structures or permanent changes in existing facilities will be obtained and paid for by Department, unless otherwise provided in the Contract Documents. If Contractor believes that any delay in Department’s furnishing of these lands or easements entitles Contractor to an extension of the Contract Time, Contractor may make a request therefore as provided in Article 10 of the General Conditions. If Department and Contractor are unable to agree concerning such an extension, a claim may be made as provided in Articles 9, 10 and 11 of the General Conditions.

3.2 Any lands and easements for access not furnished by Department which Contractor deems necessary for the Work, including but not limited to requirements for temporary construction facilities, access and egress, or for storage of materials, shall be provided by Contractor at no increase in Contract Price nor extension in Contract Time. Contractor shall obtain all necessary permits and written approvals from the appropriate jurisdictional agencies and property owner(s) for use of premises not furnished by Department as described above, and for the use of all off-site areas needed for the Work including but not limited to off-site borrow pits, and waste and disposal areas. If permits and approvals do not specify the required treatment, if any, of said areas during and at the completion of the Work, the Progress Schedule must describe such
treatment. Copies of all permits and approvals applicable to said areas shall be filed with the Engineer before utilization of any said areas. Contractor shall have sole responsibility for any property damage or personal injuries occasioned by an act or omission of Contractor in respect to all lands, and easements obtained pursuant to this paragraph.

3.3 Engineering survey horizontal and vertical control reference points for construction which are specified in the Contract Documents or which in Engineer’s judgment are necessary to enable Contractor to proceed with the Work, will be provided by Department. Contractor shall be responsible for laying out the Work using such reference points, shall protect and preserve the established reference points; and shall make no changes or relocations without the prior written approval of Engineer. Contractor shall notify Engineer in writing whenever any reference point is lost or destroyed or requires relocation because of necessary changes in grades or locations; and shall be responsible for the accurate replacement or relocation of such reference points by a New York State licensed surveyor at Contractor’s expense.

**Physical Conditions and Existing Structures:**

3.4 **Explorations and Reports:** Reference is made to the Supplementary Bidding Information and Requirements for identification of those reports of explorations and tests of conditions at the site that have been utilized by the Design Engineer in preparation of the Contract Documents; and for identification of those drawings of physical conditions in or relating to existing surface structures (except Underground Facilities referred to in paragraphs 3.5 and 3.6) which are at or contiguous to the site that have been utilized by Design Engineer in preparation of the Contract Documents. Contractor may rely upon the accuracy of the technical data contained in such reports, as to the location where and at the point in time when data was obtained, but not upon non-technical data, interpretations or opinions contained therein or for the completeness thereof for Contractor’s purposes. Except as indicated in the Bidding Information and Requirements Section and, in paragraphs 3.9 and 3.10, Contractor shall have full responsibility with respect to subsurface conditions which Contractor could reasonably expect or foresee by reason of the technical data and Contractor’s inspection of the site, and with respect to physical conditions in or relating to such surface structures.

**Physical Conditions - Underground Facilities Shown or Indicated:**

3.5 The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the site is based on information and data furnished to the Design Engineer by the owners of such Underground Facilities or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

3.5.1 Department shall not be responsible for the accuracy or completeness of any such information or data; and,

3.5.2 Contractor shall have responsibility: a) for reviewing and checking all such information and data; b) for locating all Underground Facilities shown or indicated in the Contract Documents as to depth and alignment in advance of installations, backfilling or other work required by the Contract Documents; c) for coordination of the Work with the owners of such Underground Facilities during construction, d) for the safety and protection thereof, and e) for repairing any damage thereto resulting from the Work. The cost of and the time required to perform the responsibilities outlined in this paragraph will be considered as having been included in the Contract Price and in Contractor’s
schedule for the performance of the Work within the prescribed Contract Time(s) and Contractor shall not be entitled to additional payment therefor.

3.5.3 Contractor shall excavate and uncover all Underground Facilities to be crossed or paralleled by the proposed Work a sufficient time in advance to permit change in line and grade of the existing Underground Facility or the proposed Work if the location of the existing Underground Facility should interfere with the Work. Further, a reasonable interval of time, up to thirty (30) days, will be allowed to Engineer and Department in order to resolve issues relating to Underground Facilities shown or indicated which are determined to interfere with the Work. This interval of time will be considered as having been included in the Contract Price and in Contractor's schedule for the performance of the Work within the Contract Time unless otherwise agreed to in writing by Department. If more than thirty (30) days is consumed in resolving such issues, no claim will be allowed unless: 1) Contractor has given the notice required in paragraph 3.7 of the General Conditions, and 2) within fifteen (15) days thereafter, Contractor has submitted to Department a written Proposed Change Order claim in accordance with the requirement of Article 9, 10 and 11 of the General Conditions and the Standard Specifications.

3.5.4 Where it is necessary for the Work to be close to or between other underground facilities or structures for short distances, Contractor shall shore, block, and protect the other underground facilities or structures to the satisfaction of the utility agency, state agency, municipality or private owner having ownership or jurisdiction over said underground facilities on structures.

3.5.5 Access to various municipal structures shall not be obstructed by Contractor to prevent use of hydrants, valves, manholes, fire alarms, etc. Contractor is to make no connections to existing water mains, or operate valves on existing mains, or otherwise interfere with the operation of the existing water distribution system, without first giving written notice to the owners of such municipal structures and securing their written approval, and satisfactory fulfillment of applicable permits, fees, or requirements of the proposed action.

**Underground Facilities Not Shown or Indicated:**

3.6 If an Underground Facility is uncovered or revealed at or contiguous to the site which was not shown or indicated in the Contract Documents and which Contractor could not reasonably have been expected to be aware of, Contractor shall promptly after learning thereof and before performing any Work affected thereby (except in an emergency as permitted by paragraph 5.23), identify the owner of such Underground Facility and give written notice of such uncovering to that owner and to Engineer and Department. Engineer and Department will promptly review the situation to determine the extent to which the Contract Documents should be modified to reflect and document the consequences of the existence of the Underground Facility, and take prompt action to amend the Contract Documents to the extent necessary. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility as provided in paragraph 5.20.

3.6.1 Contractor shall schedule excavation and uncovering Work to begin a sufficient time in advance to allow Engineer's review and the possible amendment to the Contract Documents if unanticipated Underground Facilities are discovered as described in paragraph 3.6. Further, up to thirty (30) days, will be allowed to Engineer and
Department to resolve issues and problems related to a report of newly discovered Underground Facilities, not shown or indicated. This interval of time will be considered as having been included in the Contract Price and in Contractor's schedule for the performance of the Work within the Contract Time and Contractor shall not be entitled to any additional payment therefor.

3.6.2 No claim by Contractor under paragraph 3.6 of the General Conditions will be allowed unless more than thirty (30) days has elapsed and 1) Contractor has given the notice required in paragraph 3.7 of the General Conditions, and 2) within fifteen (15) days thereafter, Contractor has submitted to Department a written Proposed Change Order claim in accordance with the requirements of Articles 8, 9, 10 and 11 of the General Conditions, and the Standard Specifications.

Report of Differing Site Conditions:

3.7 If Contractor believes that any subsurface or physical condition uncovered or revealed at the site renders materially inaccurate any information in the Contract Documents or technical data on which Contractor was entitled to rely as provided in paragraph 3.4, Contractor shall, immediately after becoming aware thereof and before performing any Work in connection therewith (except in an emergency as permitted by paragraph 5.23), notify Department and Engineer in writing about the inaccuracy or difference to allow Department and Engineer to make any necessary changes to minimize the cost of the Work.

3.8 Engineer's and Department's Review: Engineer and Department will promptly review the pertinent conditions, determine the necessity of obtaining additional explorations or tests with respect thereto, and notify Contractor in writing of findings and conclusions. Immediately thereafter, Department shall perform or cause to be performed any necessary or appropriate additional investigations and tests with respect to the newly discovered conditions and furnish copies to Contractor.

3.9 Possible Document Change: If Engineer concludes that there is a material error in the Contract Documents or that because of newly discovered conditions a change in the Contract Documents is required, a Proposed Change Order or a Change Order will be issued as provided in Article 9 to reflect and document the consequences of the inaccuracy or difference, provided Department has not exercised its right to suspend or terminate under Article 14 of Section 8, "General Conditions", Appendix B, or Article 12 of Section 6 "Agreement."

3.10 Possible Contract Adjustment: An increase or decrease in the cost of, or the time required to perform any part of the Work, whether or not affected by such differing conditions, and a corresponding adjustment in Contract Price or Contract Time in accordance with Articles 9, 10 and 11 of the General Conditions, or any combination thereof, may be allowable to the extent that they are attributable to any such inaccuracy or difference which Contractor could not reasonably have been expected to anticipate or be aware of. If Department and Contractor are unable to agree as to the adjustment in Contract Price or Contract Time, or if Engineer concludes that there is not a material error in the Contract Documents, or that the uncovered or revealed condition could reasonably have been anticipated by Contractor, and Contractor disagrees, a claim may be made therefor as provided in Articles 9, 10 and 11 of the General Conditions.

3.11 No claim by Contractor under paragraph 3.10 of the General Conditions will be allowed unless: 1) Contractor has given the written notice required in paragraph 3.7 of the General Conditions, and 2) within fifteen (15) days thereafter, Contractor has submitted to Department a written
Proposed Change Order substantiating in detail Contractor's proposed adjustments in accordance with the requirements of Articles 9, 10 and 11 of the General Conditions, and the Standard Specifications.

3.12 Responsibilities and Allowances: Contractor shall schedule excavation and uncovering of Work to begin a sufficient time in advance to allow Engineer's review as described in paragraph 3.8, and Department's issuance of a Change Order or a Proposed Change Order as described in paragraph 3.9 in connection with a report of differing conditions. Further, a reasonable interval of time, not less than thirty (30) days will be allowed to Engineer and Department for those functions required to resolve any report of differing conditions. This interval of time will be considered as having been included in the Contract Price and in Contractor's schedule for the performance of the Work within the Contract Time. If more than thirty (30) days is used, no claim will be allowed unless (1) Contractor has given the written notice required in paragraph 3.7 of the General Conditions, and (2) within fifteen (15) days thereafter, Contractor has submitted to Department a written Proposed Change Order claim in accordance with the requirements of Articles 8, 9, 10 and 11 of the General Conditions, and the Standard Specifications.

ARTICLE 4 - Bonds and Insurance

Performance and Other Bonds:

4.1 Contractor shall furnish performance, labor and material payment Bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all Contractor's obligations under the Contract Documents. These Bonds shall remain in effect until at least one year after the date when final payment is made, unless otherwise provided by Law or by the Contract Documents. Contractor shall also furnish such other Bonds as are required by the Supplementary Conditions. All Bonds shall: a) be in the form prescribed by the Contract Documents; and b) be executed by such sureties as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and As Acceptable Reinsuring Companies" as published by the U.S. Treasury Department. Also the surety shall be licensed to do business in New York State. All Bonds signed by an agent must be accompanied by an original or a certified true copy of the agent's power of attorney. Contractor's failure to submit and keep in effect a Bond or form of financial security acceptable to Department in the manner required by this paragraph shall be cause for termination. Contractor shall give written notice to Department and reference the site number and project name, if the surety on any Bond furnished by Contractor is declared bankrupt, becomes insolvent, its right to do business is involuntarily terminated by any state or federal agency, it ceases to meet the requirements of paragraph 4.1, Contractor, if required by Department, shall within fourteen days substitute another Bond or Surety, in an acceptable form of financial security. The top of all bonds shall have "NYSDEC-DER Site No. 932112".

If the provision of any bond requires that the surety be notified of any change in the Work, it shall be Contractor's responsibility to so notify the surety. Contractor shall furnish Department any modified bond.
Insurance - All Types:

4.2 The Contractor agrees to procure and maintain at its own expense and without expense to the Department insurance of the kinds and amounts hereinafter provided by insurance companies licensed to do business in the State of New York, covering all operations under this Contract.

The Contractor shall furnish to the Department a certificate or certificates with the appropriate endorsements showing that it has complied with this Article. The insurance documentation shall provide that:

   a. Liability and protective liability insurance policies shall provide primary and non-contributory coverage to the NYS Department of Environmental Conservation for any claims arising from the Contractor’s Work under this contract, or as a result of the Contractor’s activities. Insurance policies will not be accepted that:
      o remove or restrict blanket contractual liability located in the “insured contract” definition (as stated in Section V, Number 9, Item f in the ISO CGL policy) so as to limit coverage against claims that arise out of work; or
      o remove or modify the “insured contract” exception to the employers liability exclusion; or
      o do not cover the additional insured for claims involving injury to employees of the named insured or subcontractors.

   b. The Contractor shall provide fully-completed ACORD 855 New York Construction Certificate of Liability Insurance Addendum along with specified General Liability certificate and accompanying endorsements.

   c. The State of New York, NYS Department of Environmental Conservation, its officers, agents and employees, Division of Environmental Remediation, Remedial Bureau E, 625 Broadway, Albany, NY 12233-7017, shall be listed as Certificate Holder on all liability insurance certificate(s), as additional insureds on endorsement(s) and on additional supporting documentation.

   d. The policies shall include a waiver of subrogation endorsement in favor of the Department as an additional insured. The endorsement shall be on ISO Form number CG 24 04 or a similar form with same modification to the policy.

   e. Policies shall not be changed or canceled until thirty (30) days prior written notice has been given to the Department; as evidenced by an endorsement or declarations page.

   f. Insurance documentation shall disclose any deductible, self-insured retention, aggregate limit or any exclusion to the policy that materially changes the coverage required by the Contract.

   g. Endorsements in writing must be added to and made part of the insurance contract for the purpose of changing the original terms to reflect the revisions and additions as described. A copy of these endorsements must be provided to the Department.

   h. Applicable insurance policy number(s) referenced on the ACORD form must be referenced in the supporting documentation requested by the Department and supplied by the insurance company (e.g. endorsement page, declarations page, etc.).

   i. When coverage is provided by a non-admitted carrier, a copy of the declarations page along with the ELANY stamped certification wording affixed to the certificate of insurance must be provided to ensure that the excess line insurance has met all of the requirements for a valid excess line transaction in accordance with Article 21 of the New York State Insurance Law.
j. Worker’s Compensation and Disability Benefits certificates shall name the New York State Department of Environmental Conservation, Division of Environmental Remediation, Remedial Bureau E, 625 Broadway, 12th Floor, Albany, NY 12233-7017, as entity requesting proof of coverage.

k. This Contract shall be void and of no effect unless the Contractor procures the required insurance policies and maintains them until acceptance or completion of the work, whichever event is later. If at any time during the term of this contract the coverage provisions and limits of the policies required herein do not meet the provisions and limits set forth in the Contract or proof thereof is not provided to the Department, the Contractor shall immediately cease Work on the Project. The Contractor shall not resume Work on the Project until authorized to do so by the Department. Any delay, time lost, or additional cost incurred as a result of the Contractor not having insurance required by the Contract or not providing proof of same in a form acceptable to the Department, shall not give rise to a delay claim or any other claim against the Department. Should the Contractor fail to provide or maintain any insurance required by this contract, or proof thereof is not provided to the Department, the Department may withhold further contract payments, treat such failure as a breach or default of this contract, and/or, after providing written notice to the Contractor, require the Surety “if any” to secure appropriate coverage and/or purchase insurance complying with the Contract and charge back such purchase to the Contractor.

l. Should the Contractor engage a subcontractor, the Contractor shall impose the insurance requirements of this document on the subcontractor. Contractor shall determine the required insurance types and limits, commensurate with the work of the Subcontractor. The Contractor will maintain the certificate(s) and endorsement(s) for all subcontractors hired as part of the Contractor’s records.

The following types and amounts of insurance are required for this Contract:

4.2.1 **Workers’ Compensation:** For work to be performed in New York State, the Contractor shall provide and maintain full New York State coverage during the life of this contract for the benefit of such employees as are required to be covered by the New York State Workers’ Compensation Law.

If the agreement involves work on or near a shoreline, a U.S. Longshore and Harbor Workers’ Compensation Act and/or Jones Act policy as applicable must be provided. Any waiver of this requirement must be approved by the Agency and will only be granted in unique or unusual circumstances.

Evidence of Workers’ Compensation and Employers Liability coverage must be provided on one of the following forms specified by the Chairman of the New York State Workers’ Compensation Board:

<table>
<thead>
<tr>
<th>FORM #</th>
<th>FORM TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>C-105.2</td>
<td>Certificate of Workers’ Compensation Insurance (September 2007, or most current version)</td>
</tr>
<tr>
<td>U-26.3</td>
<td>State Insurance Fund Version of the C-105.2 form</td>
</tr>
<tr>
<td>SI-12/</td>
<td>Certificate of Workers’ Compensation Self-Insurance</td>
</tr>
<tr>
<td>GSI-105.2</td>
<td></td>
</tr>
<tr>
<td>CE-200</td>
<td>Certificate of Attestation of Exemption (when Contractor meets the requirements.)</td>
</tr>
</tbody>
</table>
All forms are valid for one year from the date the form is signed/stamped, or until policy expiration, whichever is earlier.

Please note - ACORD forms are NOT acceptable proof of New York State Workers’ Compensation Insurance coverage.

Additional information can be obtained at the Workers’ Compensation website: http://www.wcb.ny.gov/content/main/Employers/Employers.jsp

4.2.2 Disability Benefits: For work to be performed in New York State, the Contractor shall provide and maintain coverage during the life of this contract for the benefit of such employees as are required to be covered by the New York State Disability Benefits Law. Any waiver of this requirement must be approved by the Department of Environmental Conservation and will only be granted in unique or unusual circumstances.

Evidence of Disability Benefits coverage must be provided on one of the following forms specified by the Chairman of the New York State Workers’ Compensation Board:

<table>
<thead>
<tr>
<th>FORM #</th>
<th>FORM TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>DB-120.1</td>
<td>Certificate of Insurance Coverage under the New York State Disability Benefits Law</td>
</tr>
<tr>
<td>DB-155</td>
<td>Certificate of Disability Self-Insurance</td>
</tr>
<tr>
<td>CE-200</td>
<td>Certificate of Attestation of Exemption (when Contractor meets the requirements.)</td>
</tr>
</tbody>
</table>

All forms are valid for one year from the date the form is signed/stamped, or until policy expiration, whichever is earlier.

Please note - ACORD forms are NOT acceptable proof of New York State Disability Benefits Insurance coverage.

Additional information can be obtained at the Workers’ Compensation website: http://www.wcb.ny.gov/content/main/Employers/Employers.jsp

4.2.3 Commercial General Liability Insurance: Contractor shall provide and maintain Commercial General Liability Insurance (CGL) covering the liability of the Contractor for bodily injury, property damage, and personal/advertising injury arising from all work and operations under this contract. The limits under such policy shall not be less than the following:

- Each Occurrence limit – $5,000,000
- General Aggregate – $8,000,000
- Products/Completed Operations – $8,000,000
- Personal & Advertising Injury - $1,000,000
- Damage to Rented Premises - $50,000
- Medical Expense - $5,000

Coverage shall include, but not be limited to, the following:

- Premises liability;
- Independent contractors;
- Blanket contractual liability, including tort liability of another assumed in a contract;
- Defense and/or indemnification obligations, including obligations assumed under this contract;
- Cross liability for additional insureds;
- Products/completed operations for a term of no less than 3 years, commencing upon acceptance of the work, as required by the contract;
- Explosion, collapse, and underground hazards;
- Contractor means and methods; and
- Liability resulting from Section 240 or Section 241 of the New York State Labor Law.

The following ISO forms must be endorsed to the policy:
- CG 20 10 11 85 or an equivalent – Additional Insured-Owner, Lessees or Contractors
- CG 25 03 11 85 or an equivalent – Designated Construction Project(s) general aggregate limit (only required for construction contracts).

Limits may be provided through a combination of primary and umbrella/excess liability policies. The CGL aggregate shall be endorsed to apply on a per project basis for construction contracts.

4.2.4 **Business Automobile Liability:** Contractor shall provide and maintain Business Automobile Liability insurance covering liability arising out of the use of any registered motor vehicle in connection with the contract, including owned, leased, hired and non-owned vehicles. Such policy shall have a combined single limit for Bodily Injury and Property Damage of at least $1,000,000.

If the Contractor does not own, lease or hire any registered motor vehicles or will not be using any vehicles on State Land proof of Business Automobile Liability Insurance shall not be required for this Contract.

The Contractor shall assume full responsibility and liability that owners and operators of any registered motor vehicles entering State Land to conduct work under this contract carry the same Business Automobile Liability Insurance of the kinds and amounts listed above. NYS Department of Environmental Conservation reserves the right to request proof of the same.

4.2.5 **Environmental Liability:** Contractor shall procure, or otherwise obtain through an approved subcontractor, and maintain in full force and effect throughout the term of the contract, and for two years after completion hereof, pollution legal liability insurance with limits of not less than $8,000,000 providing primary coverage for bodily injury and property damage, including loss of use of damaged property or of property that has not been physically injured. Such policy shall provide coverage for actual, alleged or threatened emission, discharge, dispersal, seepage, release or escape of pollutants, including any loss, cost or expense incurred as a result of any cleanup of pollutants or in the investigation, settlement or defense of any claim, suit, or proceedings against the Department of Environmental Conservation arising from the Contractor’s work.

This requirement applies to mold as well, if excluded in the commercial general liability policy.

If vehicles are to be used for transporting hazardous materials, the Contractor shall also provide pollution liability broadened coverage for covered autos (endorsement CA 99 48 03 06 or CA 01 12 03 06) as well as proof of MCS 90.
4.2.6 **Professional Liability:** The Contractor shall procure and maintain during and for a period of three (3) years after completion of this contract, Professional Liability Insurance in the amount of $2,000,000 issued to and covering damage for liability imposed on the Contractor by this contract or law arising out of any negligent act, error, or omission in the rendering of or failure to render professional services required by this contract. The professional liability insurance may be issued on a claims-made policy form, in which case the Contractor shall purchase at its sole expense, extended Discovery Clause coverage of up to three (3) years after work is completed if coverage is cancelled or not renewed. The Contractor shall provide coverage for its negligent act, error or omission in rendering or failing to render professional services required by this contract arising out of specifications, installation, modification, abatement, replacement or approval of products, materials or processes containing pollutants, and the failure to advise of or detect the existence or the proportions of pollutants.

Should any subcontractor(s) or supplier(s) retained by the Contractor provide professional services requiring design (i.e. the signature, stamp or certification of a licensed professional), the Contractor shall collect Professional Liability Insurance from the subcontractor(s) or supplier(s) and retain said insurance as part of the contract documents.

4.2.7 **Contractor’s Equipment:** The Contractor shall secure, pay for, and maintain Property Insurance necessary for protection against the loss of owned, borrowed or rented capital equipment and tools, including any tools owned by employees, and any tools or equipment, staging towers, and forms owned, borrowed or rented by the Contractor. The requirement to secure and maintain such insurance is solely for the benefit of the Contractor. Failure of the Contractor to secure such insurance or to maintain adequate levels of coverage shall not render the Department or their agents and employees responsible for any losses; and the Department, their agents and employees shall have no such Liability.

4.2.8 **Builders’ Risk:** The Contractor shall provide a Builders’ Risk Insurance policy covering all risks in completed value form. Such policy shall cover the total value of the Work performed in accordance with this contract, as well as the value of any equipment, supplies and/or material to be installed in the project that may be in storage (on or off the Site) or in transit. The policy shall cover the cost of removing debris, including demolition as may be legally necessary by the operation of any law, ordinance or regulation, and property of the State held in their care, custody and/or control. The Builders’ Risk policy shall contain endorsements that provide for the following:

- The State of New York, NYS Department of Environmental Conservation and the Contractor shall be named as loss payees for the work in order of precedence, as their interest may appear; and
- In the event the loss occurs at an occupied facility, the policy shall permit occupancy without the consent of the insurance company; and
- In the event that insurance policy has been issued by a mutual insurance company, the following language shall be included: "the Department of Environmental Conservation is not liable for any premium or assessment under this policy of insurance. The First Named Insured is solely liable therefore."

4.2.9 **Owners and Contractors Protective Liability:** The Contractor shall obtain Owners/Contractors Protective Liability (OCP) Policy as follows:

- For work related to street, road, highway, and/or bridge work
  - Form CG 00 09, Owners and Contractors Protective Liability Coverage form – Coverage for Operations of the Designated Contractor; AND
Form CG 00 14, Special Protective and Highway Liability Policy – New York Department of Transportation

- For projects not related to street, road, highway, and/or bridge work
  - Form CG 00 09, Owners and Contractors Protective Liability Coverage form – Coverage for Operations of the Designated Contractor ONLY

The policy shall be written on a project basis for the benefit of the People of the State of New York, the Department, its officers, agents, and employees, with respect to all operations under this contract by the Contractor or its subcontractors, including in such coverage any omissions and supervisory acts of the Department, its officers, agents, and employees.

The State of New York and the NYS Department of Environmental Conservation, Division of Environmental Remediation, Remedial Bureau E, 625 Broadway, Albany, NY 12233-7012 shall be the Named Insured in the OCP Policy, which shall be promptly furnished to the Department. OCP policy limits shall be no less than $1 Million (Each Occurrence) / $2 Million (General Aggregate).

4.2.10 **Railroad Protective Liability:** Contractor shall provide and maintain a Railroad Protective Liability (RRPL) Policy in the amounts required by the respective Railroad. The policy must name the Railroad as the Named Insured and the definition of “physical damage to property” must be amended to mean direct and accidental loss of or damage to “all property of any Named Insured and all property in any Named Insured's care, custody or control”.

Evidence of Railroad Protective Liability Insurance must be provided on the Certificate of Insurance, and a detailed Binder pending issuance of the policy, or on an ISO-RIMA or equivalent form approved by the Railroad, and meet any other requirements as specified by the Railroad and/or the Department of Environmental Conservation.

4.2.11 **Marine Protection & Indemnity:** Contractor shall procure Marine Protection & Indemnity and Hull and Machinery coverage. Hull and Machinery coverage shall be provided for the total value of the watercraft or equipment. The Contractor shall obtain Protective and Indemnity Liability insurance for all marine operations under the Agreement, with a minimum $5,000,000 limit.

4.2.12 **Umbrella and Excess Liability:** When the limits of the CGL, Auto, and/or Employers' Liability policies procured are insufficient to meet the limits specified, the Contractor shall procure and maintain Commercial Umbrella and/or Excess Liability policies with limits in excess of the primary; provided, however, that the total amount of insurance coverage is at least equal to the requirements set forth above. Such policies shall follow the same form as the primary.

**ARTICLE 5 - Contractor's Responsibilities**

**Supervision and Superintendence:**

5.1 Contractor shall supervise and direct the Work required by the contract competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be responsible for the means, methods, techniques, sequences and procedures of construction; except that Contractor shall not be responsible for the negligence of others in the design or selection of a specific means, method, technique, sequence or procedure of construction which
is indicated in and required by the Contract Documents. Contractor shall be responsible to see that the finished Work conforms with the Contract Documents.

5.2 Contractor shall keep on the Site of the Work at all times during its progress, a competent and reliable resident superintendent, who shall not be replaced without written approval of Department. The superintendent will be Contractor’s representative at the site and shall have authority to act on behalf of Contractor. All communications given to the superintendent shall be as binding as if given to Contractor.

5.2.1 Department may require immediate replacement of the superintendent upon written notice for cause.

5.2.2 The superintendent and similar authorized representatives of any Subcontractors as requested by Department or Engineer shall attend all meetings pertaining to the Work.

5.2.3 Whenever the superintendent is not present for performance of a particular part of the Work and Engineer is not able to give to Contractor, through the superintendent, information relative to an interpretation of the Contract Documents, or relative to disapproval or rejection of materials or the performance of such work, Engineer may so inform the worker in charge of such Work. Information so given shall be binding as if given to superintendent.

5.2.4 Contractor shall issue all communications to Department through Engineer except as provided by Contract Documents. All written correspondence to Engineer shall be copied to Department.

Labor, Working Hours, Materials and Equipment:

5.3 Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall, at all times, employ labor and equipment which shall be sufficient to prosecute the several classes of work to full completion in the manner and time specified. All workers must have sufficient skill, experience and Health and Safety training required to perform properly the work assigned them. All workers engaged on special or skilled work shall have had sufficient experience in such work to perform properly and satisfactorily including operation of any equipment involved. Any person employed by Contractor or Subcontractor whom the Engineer or Department may determine incompetent or unfit to perform the work shall be at once discharged or reassigned and not again be employed on Work in connection with this Contract. The Contractor may request review by Department regarding the discharge of such employee(s). Contractor shall at all times maintain good discipline and order at the site. Except in connection with the safety or protection of persons or the Work or property at the site or adjacent thereto, and except as otherwise indicated in the Contract Documents, all Work at the site shall be performed during normal working hours as defined in paragraph 5.3.1 below, and Contractor shall not permit overtime Work or the performance of Work during hours other than normal Working hours without: a) prior written notice to Engineer; b) Department’s written consent; and c) written approval from the New York State Department of Labor as required by law.

5.3.1 Normal working hours shall be defined as a normal working schedule which a) does not exceed eight hours per working day, occurring between the hours set forth at the pre-construction conference, or if none are set forth, beginning no earlier than 7:00 a.m. and ending at no later than 5:00 p.m.; and b) does not exceed 40 hours per week, excluding
overtime Work, Work on Saturdays, Sundays, and Federal- or New York State-observed holidays. Work during other than normal working hours may be scheduled by Contractor by first obtaining written permission from Department and as provided in Section 5.3. Department shall be entitled to recover extra costs incurred in providing inspection related to Work done during other than normal working hours in accordance with paragraph 5.3.5 below.

5.3.2 If Contractor, for convenience, voluntarily chooses to schedule Work during hours other than normal working hours at no increase in Contract Price, Contractor shall submit details of such proposed schedule with the interim Progress Schedule described in paragraph 1.6 of the General Conditions. Any Progress Schedule calling for Work outside of normal working hours shall be reviewed for acceptance by Engineer and Department and must be in accordance with the requirements of the New York State Labor Law and Articles 1.6 and 5.3 of the General Conditions.

5.3.3 If at any time subsequent to the submission and approval of the Progress Schedule pursuant to the General Conditions and the Standard Specifications, an event or delay not meeting the requirements for extensions in Contract Time set forth in Articles 9, 10 and 11 of the General Conditions occurs, and requires Contractor to schedule Work during hours other than normal working hours for Contractor’s convenience and at no increase in Contract Price, Contractor shall submit, at least ten (10) working days in advance of the acceleration period, a proposed revised accelerated schedule for review by Engineer and Department. If Department accepts the revised accelerated Progress Schedule, Department will so notify Contractor in writing.

5.3.4 If the accelerated Progress Schedule pursuant to paragraph 5.3.2 or 5.3.3 is accepted by Department, Contractor shall reimburse Department for all extra costs incurred in providing inspection during hours other than normal working hours in accordance with paragraph 5.3.5 below. Acceptance by Department of the accelerated Progress Schedule shall not justify an increase in Contract Price; any increase in Contractor’s cost to perform the Work, or any part thereof, whether or not affected by Contractor’s initiated acceleration proposal, shall remain the responsibility of Contractor.

5.3.5 Contractor shall reimburse Department for the extra costs incurred in providing inspection during hours other than normal working hours when Department considers that the additional hours are due to Contractor’s inefficiencies or delays. Reimbursement may include but may not be limited to costs for Engineer, Resident Project Representatives, administrative expenses and other related costs. Reimbursement for Engineer’s charges shall be in amounts equal to Engineer’s charges to Department for inspection during hours other than normal working hours under the terms of Engineer’s agreement with Department. In the event Contractor fails to pay such costs within 30 days after receipt of an invoice from Department, a Change Order or Proposed Change Order may be issued incorporating the unpaid amounts, and Department shall be entitled to an appropriate decrease in Contract Price.

5.3.6 Department may direct Contractor to accelerate if the progress of Work indicates Contractor may not be able to complete the contract within the contract terms. Contractor shall be responsible for all increased costs due to the acceleration.

5.4 Unless otherwise specified in the Contract Documents, Contractor shall furnish and assume full responsibility for all materials, equipment, labor, transportation, construction equipment and
machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, storage areas, temporary facilities and all other facilities and incidentals necessary for the furnishing, performance, testing, start-up and completion of the Work.

5.4.1 All water for testing, flushing and construction shall be furnished by Contractor. If water is available from Department and Department agrees to its use, Contractor shall connect to Department’s water system at a point approved by Department. Department will charge Contractor for water used in performing the above functions in accordance with Department’s established rate schedule. There shall be installed at each and every connection to any water supply: (a) a meter accepted by Department or Owner of water supply, and (b) a backflow preventer device accepted by the New York State Department of Health.

5.4.2 In the event that Contractor wishes to utilize water from a source other than the Department’s facilities as a substitute source of test water, Contractor shall submit sufficient information in accordance with paragraph 5.7.2 of the General Conditions to allow Engineer to evaluate the substitution. Additionally, such information shall include a description of the necessary equipment and temporary facilities needed to implement the substitute and an estimate of the costs savings anticipated. In the event that the substitution is accepted by Engineer pursuant to the requirements of paragraph 5.7.3 of the General Conditions and allowed by Department, and the supply of water is inadequate in quantity or quality, Contractor shall be responsible for obtaining other sources of test water at no increase in Contract Price or extension in Contract Time.

5.4.3 Contractor shall light the parts of the Work performed during working hours in the manner required by law and as required by Engineer or Department.

5.5 Except as otherwise provided in the Contract Documents, all materials shall be of good quality, good condition and new, and all equipment shall be new, or should be in good working order and of good quality. As required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the kind and quality of materials and equipment. All materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with the instructions of the applicable Supplier except as otherwise provided in the Contract Documents.

5.5.1 Contractor shall provide to Department for Department’s benefit through Engineer all manufacturers’ warranties for materials, and products incorporated into the Work, or required by the Contract Documents to be furnished by Contractor.

5.5.2 Contractor shall obtain from manufacturers of all materials and products complete information as to any special condition, or restriction to be applied in the use of these items. Should the manner or method of installation, specified performance or test results as set forth in the Specifications be contrary to the manufacturer’s recommendations for installation and use of the product, the Contractor shall notify Engineer of same for appropriate action. Lack of such notification shall constitute a certification and guarantee by Contractor that Specification requirements will be met by such materials and products to be incorporated.

5.5.3 Contractor shall submit data on all products to be incorporated into the Work required by the Contract Documents, including but not limited to complete maintenance instructions (including preventive maintenance and operating requirement data) and
parts lists in sufficient detail to facilitate ordering replacements, in accordance with the procedures set forth in the Special Supplementary Conditions, the Standard Specifications or the Supplementary Specifications.

Adjusting Progress Schedule:

5.6 Contractor shall report on the status of and any revisions to the Progress Schedule to Engineer and Department by delivering Progress Schedule status and update submittals to Engineer in accordance with the Specifications and Article 1.6 of the General Conditions. If Contractor does not adequately update the Schedule, Department may reject Contractor's requests for payment, provided that Department gives Contractor ten (10) days written notice of its intention to do so.

"Or-Equal" or Substitute Items:

5.7.1 Whenever materials or equipment are specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the naming of the item is intended to establish the type, function, quality, performance and design criteria required. Unless the name is followed by words indicating that no "or equal" or substitution is permitted, materials or equipment of other Suppliers may be accepted by Engineer if sufficient information is submitted by Contractor to allow Engineer to determine that the material or equipment proposed is equivalent or equal to that named. The procedure for review by Engineer will include the following as supplemented in the Contract Documents. Requests for review of "or equal" or substitute items of material and equipment will not be accepted by Engineer from anyone other than Contractor. If Contractor wishes to furnish or use an "or equal" or substitute item of material or equipment, Contractor shall make written application to Engineer for acceptance thereof, certifying that the proposed "or equal" or substitute shall perform the functions and achieve the results called for by the general design, be similar and of equal substance and quality to that specified and be suited to the same use as that specified.

5.7.1.1 The application shall state that the evaluation and acceptance by Engineer of the proposed "or equal" or substitute shall not prejudice completion of the Work, or any part thereof, within the Contract Time, or contract times (including Contractor's achievement of Substantial Completion on time), whether or not acceptance of the "or equal" or substitute for use in the Work would require a change in the Work, or any part thereof, or would require the Department or others having a contract with Department for Work on the Project to adapt the Contract Documents to the proposed "or equal" or substitute; and whether or not incorporation or use of the "or equal" or substitute in connection with the Work is subject to payment of any license fee or royalty. All variations of the proposed "or equal" or substitute from that specified shall be identified in the application and available maintenance, repair and replacement services shall be indicated. The application shall also contain an itemized estimate of all increases or decreases in the following costs: 1) the cost of, or the time required to perform any part of the Work, and the corresponding adjustments in Contract Price and Contract Time, resulting directly or indirectly from evaluation and acceptance of the proposed substitute, including, but not as a way of limitation, costs and delays associated with redesign, or claims of other contractors affected by the resulting "or equal" or substitute, and 2) increases or decreases in
operating, maintenance, repair, replacement or spare part costs, all of which shall be considered by Engineer in evaluating the proposed "or equal" or substitute. In rendering a decision, Department and Engineer shall at a minimum, have access to any available Total Float in the approved Progress Schedule. Engineer may require Contractor to furnish at Contractor’s expense additional data about the proposed "or equal" or substitute.

5.7.2 If a specific means, method, technique, sequence or procedure of construction is indicated in or required by the Contract Documents, Contractor may furnish or utilize a substitute only if first approved by Engineer. Contractor shall submit in writing sufficient information to allow Engineer to determine that the substitute proposed is equivalent to that indicated or required by the Contract Documents. The procedures for review by Engineer established by paragraph 5.7.1, and as may be supplemented in the Contract Documents, will apply to reviews under this paragraph.

5.7.3 Engineer shall be allowed a reasonable time as determined by Department within which to evaluate each proposed "or equal" or substitute. Engineer and Department shall be the sole judge of acceptability and no "or equal" or substitute shall be ordered, installed or utilized without Engineer’s prior written acceptance which will be evidenced by either a Change Order or an approved Shop Drawing. Department may require Contractor to furnish at Contractor’s expense a special performance guarantee or other financial security with respect to any substitute. Engineer will keep record of the time required by Engineer and Engineer’s consultants in evaluating "or equals" or substitutions proposed by Contractor and in making changes in the Contract Documents occasioned thereby. Whether or not Engineer accepts an "or equal" or proposed substitute, Department shall be entitled to an offset against any payment due Contractor for the charges of Engineer and Engineer’s consultants for evaluating each proposed "or equal" or substitute after the second submittal on such item. In the event that substitute materials or equipment are accepted and are less costly than the originally specified materials or equipment, then the net difference in cost shall benefit Department, and an appropriate Change Order or Proposed Change Order shall be executed to reflect the difference in cost. If Engineer or Department determine that the deduction proposed by Contractor does not reflect the net difference in cost, then this shall be adequate justification to reject the proposed substitute. Additional construction and/or engineering costs identified after Department’s acceptance of the proposal and resulting from installation of an "or equal" or substitute shall be borne by Contractor.

Subcontractors, Suppliers and Others:

5.8.1 Contractor shall not employ nor award Work to Subcontractors in excess of the amount specified in Article 6 of the Supplementary Bidding Information and Requirements Section. Such percentage may be increased by an Administrative Agreement if, during performance of the Work, Contractor requests an increase and Department at its sole discretion determines that the increase would be to Department’s advantage. Contractor shall submit to Department a statement stating the character and amount of the work to be subcontracted and the party to whom it is proposed to subcontract the work. Contractor shall not employ any Subcontractor, Supplier or other person or organization whether initially or as a substitute, unless first approved by Department.
5.8.2 Wherever Work to be performed by Contractor or by a Subcontractor is dependent upon Work of other Subcontractor(s) or the work of separate contractor(s), then Contractor shall require such Subcontractor(s) whose Work is so dependent to:

5.8.2.1 Provide necessary notices of delay, data or other requirement(s) for performance of dependent Work or work of separate contractor(s),

5.8.2.2 Supply and/or install items to be built into dependent Work or work of separate contractor(s),

5.8.2.3 Make provisions for dependent Work or work of separate contractor(s),

5.8.2.4 Examine previously placed dependent Work or work of separate contractor(s),

5.8.2.5 Check and verify dimensions of previously placed dependent Work or work of separate contractor(s),

5.8.2.6 Notify Engineer in writing immediately upon determining previously placed dependent Work or work of separate contractor(s), the dimensions of which are unsatisfactory or will prevent a satisfactory installation of Work,

5.8.2.7 Not proceed with Work until the unsatisfactory dependent conditions which prevent satisfactory installation of Work have been corrected.

Installation of Work by Contractor or by a Subcontractor in any given area shall constitute acceptance by Contractor or by such Subcontractor of all previously placed dependent Work or work of separate contractor(s) and after such acceptance Contractor shall not make any claims for additional costs based on alleged deficiencies in such Work.

5.8.3 Whenever other Contractor(s) will perform portion(s) of the work that depend on the Contractor’s portion of the Work; Contractor shall provide all of the notices and information listed in 5.8.2 to such other Contractor(s) in a timely manner.

5.9 Contractor shall be responsible and liable to Department and Engineer for Contractor’s acts and omissions and all acts and omissions of the Subcontractors, Suppliers and other persons and organizations performing or furnishing any of the Work under a contract with any level of Subcontractor or Supplier. Nothing in the Contract Documents shall create any contractual relationship between Department or Engineer and any such Subcontractor, Supplier or other person or organization. Department or Engineer may furnish to any Subcontractor or Supplier, to the extent practicable, evidence of the payments made to Contractor on account of specific Work done.

5.10 The various sections, divisions and subdivisions of the Standard and Supplementary Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade. The Standard Specifications, Supplementary Specifications, and Drawings are complementary to each other and are to be read as a whole. Anything mentioned or shown in a division of such Specifications, or Drawings, or in a specific trade Drawing shall be effective as if shown in all divisions of such Specifications and in all Drawings. In addition to the requirements of paragraphs 5.24 through 5.30 of the General Conditions, shop drawings of a specific trade
shall be compared to and coordinated with those from other trades by Contractor before submission to Engineer.

5.11 All Work performed for Contractor by a Subcontractor will be pursuant to an appropriate agreement between Contractor and the Subcontractor which specifically binds the Subcontractor to the applicable terms and conditions of the Contract Documents for the benefit of Department.

**Patent Fees and Royalties:**

5.12 Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, device or intellectual processes which is the subject of patent rights or copyrights held by others, both when a particular invention, design, process, product or device is specified in the Contract Documents for use in the performance of the Work and otherwise. It is the intent of the parties that whenever Contractor is required or desires to use any design, device, material or process covered by letters, patent, trademark or copyright, the right for such use shall be provided for by suitable legal agreements with the patentee or owner, and a copy of this agreement shall be filed with Engineer. However, whether or not such agreement is made or filed as noted, Contractor and Contractor’s surety in all cases shall indemnify and hold harmless Department and Engineer and their employees as provided in Appendix B.

**Permits:**

5.13 Unless otherwise provided in the Contract Documents, Contractor shall obtain and pay for any permits or licenses required for performance of Work. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work, which are applicable at the time of opening of Bids, or if there are no Bids on the Effective Date of the Agreement. Contractor shall pay all charges for connections or disconnections required by the Work to Underground Facilities or utilities owned by third parties.

**Laws and Regulations:**

5.14.1 Contractor shall comply with all Laws applicable to performance of the Work. Except where otherwise expressly required by applicable Laws or Contract Documents, neither Department nor Engineer shall be responsible for monitoring Contractor’s compliance with any Laws.

5.14.2 If Contractor observes that the Contract Documents are at variance with any applicable Laws, Contractor shall immediately give Engineer prompt written notice thereof, and any necessary changes will be authorized by one of the methods set forth in paragraph 2.4 and 2.5 of the General Conditions. If Contractor performs any Work knowing or having reason to know that it is contrary to such Laws, and without such notice to Engineer, Contractor shall bear all costs arising therefrom; however, it shall not be Contractor’s primary responsibility to make certain that the Specifications and Drawings are in accordance with such Laws.

**Taxes:**

5.15 Contractor shall pay all sales, consumer, use and other similar taxes required to be paid by Contractor in accordance with the Laws of the State of New York which are applicable during the
performance of the Work. Materials, supplies, and equipment incorporated into the Work or sold to New York State are exempt from New York State sales tax.

Use of Premises:

5.16 Contractor shall confine the use and storage of construction equipment, the storage of materials and equipment and the operations of workers to the Project site and land and areas identified in and permitted by the Contract Documents and other land and areas permitted by applicable Laws, rights-of-way, permits and easements, and shall not unreasonably encumber the premises with construction equipment or other materials or equipment. Unless otherwise provided in the Contract Documents, use of Department’s facilities at or contiguous to the site by Contractor for storage of materials or equipment shall not be permitted. Contractor shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof or of any land or areas contiguous thereto, resulting from the acts or omissions of Contractor. Should any claim be made against Department or Engineer by any such owner or occupant because of the performance of the Work, Contractor shall promptly attempt to settle with such other party by agreement or otherwise resolve the Claim. Contractor shall indemnify and hold Department harmless in accordance with the provisions of Appendix B.

5.16.1 Temporary buildings (e.g., storage sheds, trailers, shops, offices) and utilities may be erected by Contractor only with the approval of Engineer and shall be built without additional expense to Department. Such temporary buildings and utilities shall remain the property of Contractor and shall be decontaminated as necessary and removed by Contractor at his expense upon completion of the Work; the buildings and utilities may be abandoned and remain at the site with the written consent of Department.

5.16.2 When materials are transported for performance of the Work, vehicles shall not be loaded beyond the loading capacity recommended by the manufacturer of the vehicle or prescribed by Federal, State, or local law or regulation. When it is necessary to cross curbs, sidewalks or work which is completed or underway on site, Contractor shall protect them from damage, and shall repair any damage caused.

5.16.3 Notwithstanding the designation of site boundaries or the indication of temporary fences or barricades, the provisions of the Contract Documents governing certain phases or portions of the Work may require that certain operations be carried out beyond the site boundaries. Trenching, utility Work, site development, landscaping, other Work, if required beyond such designated limits, shall be scheduled in such a manner as to cause or occasion a minimum of inconvenience or disturbance to or interference with the normal operation of Department, abutting owners and the public. Contractor shall obtain Department’s prior approval and all necessary approvals from others, including but not limited to public authorities and utility companies for such operations, and shall conduct such operations expeditiously and restore the affected area to its original condition immediately upon completion of such operations, unless otherwise specified in the Contract Documents.

5.16.4 All existing walks, roadways, paved or landscaped areas on which temporary driveways or walks are rerouted shall be restored to their original condition, immediately upon completion of the phases or portions of the Work for which such features were disturbed unless otherwise specified in the Contract Documents.
5.16.5 Pumping, draining and control of surface and ground water will be carried out so as to avoid endangering the Work or any adjacent facility or property, or interrupting, restricting or otherwise infringing or interfering with the use thereof, or exceeding the limits allowed by Contract Documents, or applicable Law.

5.17 During the progress of the Work, Contractor shall keep the Site free from accumulations of waste materials, rubbish and other debris resulting from the Work. At the completion of the Work Contractor shall remove all waste materials, rubbish and debris from and about the premises as well as all tools, appliances, construction equipment and machinery, and surplus materials, and shall leave the Site clean and ready for Department. Contractor shall restore all pavement, sidewalks, driveways, fences, shrubs, lawns, trees and any other public or private property damaged as a result of the Work under this Contract. All such replacement shall be done in accordance with the applicable specifications and no separate or extra payment will be made unless specifically provided for in the Payment Items. In all cases, said replacement shall be at least equal to the original conditions.

5.18 Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

As-Built Documents:

5.19 Contractor shall maintain in a safe place at the Site one (1) as-built document which shall consist of all Drawings, Specifications, Addenda, written amendments, Change Orders, Proposed Change Orders, field test records, construction photographs, Field Orders and written interpretations and clarifications (issued pursuant to paragraph 8.3) in good order and annotated to show all changes made during construction. Contractor will be required to review with Engineer the status of all as-built documents in connection with Engineer's evaluation of an Application for Payment. Pursuant to paragraph 13.2.1 of the General Conditions, failure to maintain a current file of such as-built documents up-to-date may be just cause to recommend withholding of payments for Work performed. These as-built documents together with all approved samples and a copy of all approved Shop Drawings shall be available to Engineer for reference at the Site. Upon completion of the Work, these as-built documents, samples and Shop Drawings shall be delivered to Engineer for Department. Failure by Contractor to produce acceptable as-built documents of the above listed items shall be cause for reduction of Contract Price in an amount equal to Department's cost of generating or producing the as-built documents.

Health, Safety and Protection:

5.20 Contractor shall be responsible for initiating, maintaining and supervising all health and safety precautions and programs in connection with the Work which include but are not limited by the Contract Documents and Contractor’s Health and Safety Plan. Contractor shall take all necessary precautions for the health and safety of, and shall provide the necessary protection to prevent damage, injury or loss to all employees and other persons and organizations who may be affected thereby. Contractor shall comply with all applicable Laws of any public body having jurisdiction for the health and safety of persons or property in order to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such health, safety and protection. Contractor shall notify owners of Underground Facilities and utility owners when performance of the Work may affect them, and shall cooperate with them in the protection, removal, relocation and replacement of their property. In addition to any requirements imposed by Laws, Contractor
shall shore up, brace, underpin, and protect as may be necessary, all foundations and other parts of all existing structures adjacent to and adjoining the site which are in any way affected by the excavations or other operations connected with performance of the Work under the Contract.

5.21 All damage, injury or loss to any property referred to in the above paragraph caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier or any other person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or caused by anyone for whose acts any of them may be liable, shall be remedied by Contractor; provided that Contractor shall not be responsible for damage or loss attributable to defects in the Drawings or Specifications or to the acts or omissions of Department or Engineer or anyone employed by either of them or anyone for whose acts either of them may be liable, and to the extent not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor. Contractor's duties and responsibilities for the safety and protection of the Work shall continue until such time as all the Work is completed and Engineer has issued a written notice to Department and Contractor in accordance with paragraph 13.11 that the Work is acceptable, except as otherwise expressly provided in connection with Substantial Completion. Department has the right to suspend Work or terminate this contract for cause for Contractor's failure to comply with any health and safety plan required by the Contract Documents or Law.

5.22 Contractor shall designate a responsible representative at the site whose duty shall be the prevention of accidents. This person shall be Contractor's superintendent unless otherwise designated in writing by Contractor to Department.

Emergencies:

5.23 In emergencies affecting or threatening to affect the safety or protection of persons or the Work or property at the site or adjacent thereto when prompt action is required and there is no reasonable opportunity for prior consultation with Engineer or Department, then Contractor, without special instruction or authorization from Engineer or Department, is obligated to act to prevent or mitigate threatened damage, injury or loss. Contractor shall give Engineer prompt telephonic or electronic notice followed by written notice thereof, including any significant changes in the Work or variations from the Contract Documents which Contractor believes have been caused thereby. If Engineer determines that a change in the Contract Documents is required because of the action taken in response to an emergency, an Administrative Agreement, Field Order, Proposed Change Order or Change Order shall be issued to document the consequences of the changes or variations. Contractor shall give Engineer and Department name and number of contact for emergencies during non-Work hours.

Shop Drawings and Samples:

5.24 After checking and verifying all field measurements and after complying with applicable procedures specified in the Contract Documents, Contractor shall submit to Engineer for review and approval in accordance with the accepted schedule of Shop Drawing submissions (see paragraph 1.4, hereof) six (6) physical copies and one electronic copy of all Drawings plus additional copies as required by Contractor, unless otherwise specified in the Contract Documents. All such Shop Drawings shall bear a stamp or other specific written indication that Contractor has satisfied the requirements of the Contract Documents with respect to the review of the submissions including but not limited to paragraph 5.26 below. All submissions shall be identified as Engineer may require. The data shown on the Shop Drawings shall be complete.
with respect to quantities, dimensions, specified performance and design criteria, materials and similar data to enable Engineer to review the information as required.

5.25 Contractor shall also submit to Engineer for review and approval with such promptness as to cause no delay in Work, all samples required by the Contract Documents. Contractor shall check all samples, shall identify them clearly as to material, Supplier, pertinent data such as catalog numbers and the use for which intended, and shall submit with them a written certification that Contractor has satisfied the requirements of the Contract Documents with respect to the review of such submissions including but not limited to subparagraph 5.26 below.

5.26 Before submission of each Shop Drawing or sample, Contractor shall certify that all quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers and similar data with respect thereto have been reviewed or that each Shop Drawing or sample has been coordinated with other Shop Drawings and samples and with the requirements of the Work and the Contract Documents.

5.27 At the time of each such submission, Contractor shall give Engineer specific written notice of each variation that the Shop Drawings or samples may have from the requirements of the Contract Documents, and, in addition, shall cause a specific notation of each such variation to be made on each Shop Drawing submitted to Engineer for review and approval.

5.28 Engineer will review and approve or disapprove Shop Drawings and samples in 14 days. However, Engineer’s review and approval of Shop Drawings will be only for conformance with the design concept of the Project and for compliance with the information given in the Contract Documents and shall not extend to the accuracy of other matters that may be contained in the submittals, including but not limited to such matters as dimensions, quantities, performance of equipment and systems proposed by Contractor, Contractor’s means, methods, techniques, sequences or procedures of construction (except where a specific means, method, technique, sequences, and procedures of construction is indicated in or required by the Contract Documents) or to safety precautions or program incident thereto, the correctness of which shall remain the sole responsibility of Contractor. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.

5.28.1 When reviewed by Engineer, each submittal of Shop Drawings and samples will be returned to Contractor as either "Approved", "Approved as Noted", "Resubmit with Revisions", or "Disapproved." Submittals stamped as "Approved" or "Approved as Noted" will indicate Engineer’s approval thereof, subject to the provisions of paragraph 5.28.

5.28.2 Contractor shall revise and correct Shop Drawings and samples and resubmit them to Engineer for Engineer’s second review and return pursuant to paragraph 5.29. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.

5.28.3 Costs associated with Engineer’s review and return of a Shop Drawing or sample submission other than ones submitted pursuant to paragraph 5.7 of this Section shall be borne by Contractor after the Engineer’s second (2nd) review. Department’s charges to Contractor for additional reviews will be equal to Engineer’s charges to Department under the terms of Engineer’s agreement with Department. In the event Contractor fails to pay such costs within 30 days after receipt of an invoice from Department, funds will be withheld from payment requests and at the completion of the Work, a Change Order
or proposed Change Order will be issued incorporating the unpaid amount, and Department will be entitled to an appropriate decrease in Contract Price.

5.28.4 After the Engineer’s second (2nd) review, delays associated with Contractor’s resubmittal and Engineer’s review and return of a particular Shop Drawing or sample submission shall be the responsibility of Contractor. Such delays shall not justify an increase in Contract Price nor an extension in Contract Time.

5.29 Engineer’s review and approval of Shop Drawings or samples shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has in writing called Engineer’s attention to each such variation at the time of submission as required by paragraph 5.27 and Engineer has given written approval of each such variation by a specific written notation thereof incorporated in or accompanying the Shop Drawing or sample approval; nor will any approval by Engineer relieve Contractor from responsibility for errors or omissions in the Shop Drawings or from responsibility for complying with paragraph 5.26.

5.30 Where a Shop Drawing or sample is required by the Specifications, any related Work performed prior to Engineer’s review and approval of the pertinent submission will be the sole expense and responsibility of Contractor.

Continuing the Work:

5.31 Contractor shall carry on the Work and adhere to the Progress Schedule during all Claims or Disputes with Department. No work shall be delayed or postponed pending resolution of any Claims or Disputes, except as permitted by Article 14 of the General Conditions or as Contractor and Department may otherwise agree in writing.

Weather Protection:

5.32 Contractor shall be responsible for initiating, maintaining and supervising all weather protection precautions and programs in connection with the Work. Additional weather protection provisions, if applicable, are set forth in the Supplementary Conditions, Standard Specifications or Supplementary Specifications.

Cutting and Patching of Work:

5.33 Contractor shall be responsible for all cutting of masonry and other materials, and all fitting, drilling or patching which may be necessary to complete the Work or to make its several parts fit together properly, whether or not such Work is expressly specified in the Contract Documents.

5.34 Contractor shall not damage or endanger any portion of the Work or the work performed by Department or by any separate contractors by cutting, patching or otherwise altering any work, or by excavation. Contractor shall not cut or otherwise alter work performed by Department or any separate contractors except with the written consent of Department and of such separate contractor. Contractor shall not unreasonably withhold from Department or any separate contractor consent to cutting or otherwise altering the Work.
Quality Control:

5.35 Reference is made to the Supplementary Conditions, Standard Specifications and Supplementary Specifications for the identification of Contractor’s quality control system requirements under the Contract.

Project Meetings:

5.36 Contractor, along with appropriate Subcontractors, suppliers and manufacturers, shall attend weekly, or at an interval agreed to by the Department, project meetings at the site or as requested by Department or Engineer, for the purpose of discussing and resolving matters concerning the various elements of the Work.

Notification of Emergency Services:

5.37 Contractor shall notify all local Police, Fire Department and Ambulance Services at least twenty-four (24) hours in advance of construction across or adjacent to existing roadways in order that such services might be aware of any disrupted access.

Conflicts between Contract Documents and Site:

5.38 Contractor shall notify Engineer and Department immediately upon discovering any conflicts, ambiguities, error or inconsistencies in the Contract Documents, between the Contract Documents and the actual Site Conditions, or between the Contract Documents and work being done by others. Failure to promptly notify the Engineer and Department may invalidate Contractor’s request for an increase in Contract Price and/or Time.

ARTICLE 6 - Other Work

Related Work at Site:

6.1 Department may perform other work related to the Project at the site by Department’s own forces, have other work performed by utility owners, or enter into other contracts for such other work.

6.2 Contractor shall afford each utility owner and other contractor who is a party to a direct contract with Department (or Department, if Department is performing the additional work with Department’s employees) proper and safe access to the site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such work, and shall properly connect the Work with theirs. Contractor shall do all the Work that may be required to make its several parts come together properly and integrate with other work. Contractor shall only alter the work of others with the written consent of Engineer and notice to the other contractors whose work will be affected, and shall not endanger any work of others by altering their work. The duties and responsibilities of Contractor under this paragraph are for the benefit of such utility owners and other contractors.

6.3 If any part of Contractor’s Work depends for proper execution or results upon the work of any such other contractor, utility owner or Department, Contractor shall inspect and promptly report to Engineer in writing any delays, defects or deficiencies in such work that render it unavailable or unsuitable for such proper execution and results. Contractor’s failure to report shall constitute
an acceptance of the other work as fit and proper for integration with Contractor’s Work except for latent or non-apparent defects and deficiencies in the other work.

**ARTICLE 7 - Department’s Responsibilities**

7.1 Department may issue communications to Contractor through Engineer.

7.2 In case of termination of the employment of Engineer, Department shall appoint an engineer whose status under the Contract Documents shall be the same as the former Engineer.

7.3 Department shall promptly furnish the data as required under the Contract Documents and shall make payments to Contractor promptly after they are due as provided in Article 13.

7.4 Department is represented by the Project Field Representative, the Project Manager and the Designated Representative whose duties and authority are set forth in the Contract Documents. Department is also represented by Engineer.

7.5 Department will not be responsible for Contractor’s means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, unless the Contract Documents specifically impose such a duty on Department. Department will not be responsible for Contractor’s failure to perform or furnish the Work in accordance with the Contract Documents.

7.6 Department will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other person or organization performing or furnishing any of the Work.

**ARTICLE 8 - Engineer’s Duties and Responsibilities**

**Project Representation:**

8.1 The duties and responsibilities and the limitations of authority of Engineer during construction are set forth in the Contract Documents. Engineer’s Resident Engineer will assist Engineer in inspecting the performance of the Work. The duties, and authorities of any Resident Engineer and Resident Project Representatives are set forth in the Contract Documents. Secondarily Department is represented as set forth in article 7.4 of the General Conditions.

**Visits to Site:**

8.2 Engineer shall make any on-site inspections necessary to check the quality or quantity of the Work and to determine if the Work is proceeding in accordance with the Contract Documents. Engineer’s duty to visit the site shall in no way be construed to relieve Contractor of its duty to perform the Work in conformance with the Contract Documents.

**Clarifications and Interpretations:**

8.3 Engineer or Department shall issue with reasonable promptness written clarifications or interpretations of the requirements of the Contract Documents (in the form of Drawings or otherwise) as Engineer or Department may determine necessary, which shall be consistent with or reasonably inferable from the overall intent of the Contract Documents.
**Authorized Variations in Work:**

8.4 Engineer may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Time and are consistent with the overall intent of the Contract Documents. These may be accomplished by a Field Order and will be binding on Contractor who shall perform the Work involved promptly. If Contractor believes that a Field Order justifies an increase in Contract Price or an extension in Contract Time, Contractor shall be required to deliver a written notice thereof to Engineer in accordance with the provisions of Article 9 of the General Conditions. If Department and Contractor are unable to agree as to amount and extent thereof, a claim may be made pursuant to Articles 10 and 11 of the General Conditions.

**Rejecting Defective Work:**

8.5 Engineer, based on its inspections, reports of its Resident Engineer, other information available to it and its professional experience and training, or the direction of Department, may disapprove or reject Work at any time during the construction of the Work, which Engineer believes to be Defective Work. Engineer shall also have authority to require special inspection or testing of the Work as provided in paragraphs 12.4 through 12.10 of the General Conditions, whether or not the Work is fabricated, installed, or completed. When Contractor has been notified by Engineer of disapproval or rejection of Defective Work, Contractor shall take immediate action to correct same at no additional cost.

**Shop Drawings, Change Orders and Payments:**

8.6 Engineer’s responsibilities regarding Shop Drawings and samples, are set forth in paragraphs 5.24 through 5.30 of the General Conditions. If Contractor believes that Engineer’s approval of a Shop Drawing or sample justifies an increase in Contract Price or an extension in Contract Time, Contractor shall be required to deliver a written notice thereof to Engineer in accordance with the provisions of Article 9 of the General Conditions. If Department and Contractor are unable to agree as to amount and extent thereof, a claim may be made pursuant to Articles 10 and 11 of the General Conditions.

8.7 Engineer’s duties regarding Change Orders are set forth in Articles 9, 10 and 11 of the General Conditions.

8.8 Engineer’s duties regarding Applications for Payment, etc., are set forth in Article 13 of the General Conditions.

**Determinations for Unit Prices:**

8.9 Engineer will review and make preliminary determinations on the actual quantities and classifications of acceptable Unit Price Work performed by Contractor. Engineer will review such preliminary determinations with Contractor, before rendering a written decision thereon by recommendation of an Application for Payment or otherwise. Department shall review and approve Engineer’s determinations. Department’s decisions thereon shall be final unless within ten (10) days after the date of any such decision, Contractor delivers to Department and to Engineer written notice of disagreement with Engineer’s Determination including written documentation supporting such position.
Engineer’s Determinations and Claims:

8.10 Engineer shall interpret the Contract Documents and determine the acceptability of the Work thereunder subject to Department’s right to modify or overrule Engineer’s determination after consultation with Engineer and Contractor. Claims or other matters relating to the acceptability of the Work or the interpretation of the requirements of the Contract Documents pertaining to the performance and furnishing of the Work, or in respect to changes in the Contract Price or Contract Time will be referred to Engineer in writing with a request for a formal determination in accordance with this paragraph. Engineer shall render such determination in writing within a reasonable time. Written notice of Contractor’s disagreement with Engineer’s Determination constituting a Claim shall be delivered by Contractor to Engineer and Department within ten days after receipt. Written documentation supporting such position shall be submitted to Department within thirty (30) days of Engineer’s Determination, unless the Department allows an extension of time to submit additional information.

8.10.1 A written demand or written assertion by Contractor seeking the payment of money is not a Claim under this Article until certified as required below. Contractor shall submit with the claim a certification executed by Contractor’s Authorized Representative specified in the Contract Documents that:

8.10.1.1 The Claim is made in good faith,

8.10.1.2 Supporting Cost and Pricing Data are current, accurate, and complete to the best of the Contractor’s knowledge and belief, and

8.10.1.3 The amount of the Claim accurately reflects the adjustments in Contract Price or Contract Time for which Contractor believes Department is liable.

8.10.2 Contractor agrees that all unresolved claims shall be subject to the Dispute Resolution procedures as provided in Article VIII of Appendix B to the Agreement.

8.10.3 Contractor shall proceed diligently with performance of Work under this Contract, and comply with any decision of Engineer or Department pending final resolution of any request for relief, Claim, appeal, or action arising under the Contract.

Limitations on Engineer’s Responsibilities:

8.11 Whenever in the Contract Documents the terms "as ordered," "as directed," "as required," "as allowed," "as approved," or terms of like effect or import are used, or the adjectives "unreasonable," "unsuitable," "acceptable," "proper," or "satisfactory," or adjectives of like effect or import are used to describe a requirement, direction, review or judgment of Engineer as to the Work, it is intended that such requirement, direction, review or judgment will be solely to evaluate the Work for compliance with the Contract Documents unless there is a specific statement indicating otherwise. The use of any such term or adjective shall not be effective to assign to Engineer any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of paragraph 8.12 or 8.13.

8.12 Engineer will not be responsible and Contractor remains responsible for Contractor’s means, methods, techniques, sequences and procedures of construction, and the safety precautions and
programs incident thereto, unless Contract Documents specifically impose such a duty on Engineer. Engineer will not be responsible for Contractor’s failure to perform or furnish the Work in accordance with the Contract Documents.

8.13 Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other person or organization performing or furnishing any of the Work.

**ARTICLE 9 - Changes in the Work**

9.1 Department may, at any time or from time to time and without notice to any surety, order additions, deletions or revisions in the Work or other requirements, which the performance of, or compliance with, is established in the provisions of the Contract Documents. These changes will be initiated by Proposed Change Orders, in Administrative Orders and authorized by Change Orders. Upon receipt of an Administrative Order, or Proposed Change Order, the Contractor shall proceed with the Work involved. All such Work involved shall be performed in accordance with the applicable conditions of the Contract Documents. If an Administrative Order or Proposed Change Order causes an increase or decrease in the Contract Price or an extension or shortening of the Contract Time, an equitable adjustment will be made in a duly executed Change Order. The value of any work covered by a Proposed Change Order or a Change Order for an increase or decrease in the Contract Price or the Contract Time, hereafter called the "Work involved", shall be determined by one of the following methods:

9.2 Department may order minor changes in the Work which do not involve an adjustment in the Contract Price or the Contract Time and are consistent with the overall intent and purpose of the Contract Documents. Such minor changes will be authorized by a Field Order which shall be binding on Department and Contractor who shall perform such changes promptly. If Contractor believes that a Field Order justifies an increase in the Contract Price or the Contract Time, Contractor shall make written notification in accordance with Article 8.10 of the General Conditions within three (3) days and provide documentation within 15 days in a Proposed Change Order to Engineer.

9.3 Additional work performed without authorization of a Proposed Change Order will not entitle Contractor to an increase in the Contract Price or an extension in the Contract Time, except in the case of emergency work as provided in paragraph 5.23 of the General Conditions and except in the case of uncovering Work as provided in paragraph 12.9 and 12.10 of the General Conditions.

9.4 When changes in the Work, involving adjustments to the Contract Price or Contract Time are contemplated by Department, pursuant to paragraph 9.1, Contractor may be requested to submit a cost proposal prior to being authorized to proceed with the change. If Department and Contractor are unable to agree and Department orders the change, or if Department pursuant to Engineer’s review and decision concludes that the written direction, instruction, interpretation or clarification, approval, decision or determination does not require an increase in Contract Price or extension in Contract Time, Contractor will be required to carry on with the Work involved and adhere to the Progress Schedule. Contractor proposals substantiating the amount and extent of any proposed adjustment in Contract Price or Contract Time shall become due within three (3) days of receipt (or issuance) of a Proposed Change Order initiated by Department (or Contractor), and shall be submitted in accordance with Articles 8, 9, 10 and 11 of the General Conditions. Any delays in the submittal of Contractor proposals relative to adjustments in Contract Price or Contract Time will not justify a delay or constitute basis for an increase in Contract Price or an extension in Contract Time. Unless Contractor gives written notice of intent to appeal
Department’s determination or to file a claim in accordance with Article 8 of the General Conditions, within said thirty (30) days of the issuance of a Proposed Change Order or the rejection of a Proposed Change Order, Department’s determination shall be final and binding upon Contractor.

9.5 Upon receipt of a cost proposal from Contractor, pursuant to paragraph 9.4 above, and if Department agrees with the increase or decrease in the Contract Price or Contract Time, Department shall authorize the change in the Work by issuing a Proposed Change Order and shall begin preparation of a Change Order covering the Work involved.

9.5.1 A Change Order shall also be any other written order, including direction, instruction, interpretation, determination, or decision embodied in a Field Order, or in a response to a request for clarification or interpretation of the requirements of the Contract Documents, or in an approval of a Shop Drawing or sample, or in a decision relating to a report or differing or unforeseen conditions or the acceptability of Work or Administrative Order which causes any change, provided that Contractor gives Engineer and Department a dated written notice identifying the written order and stating circumstances and other information required in this Article and in Articles 8, 10 and 11 of the General Conditions indicating that Contractor considers the written order a Proposed Change Order.

9.5.2 Contractor quotations substantiating the amount or extent of any proposed adjustment in Contract Price or Contract Time shall cover all known amounts or extents to which Contractor is entitled as a result of the proposed change. Pursuant to this requirement of the Contract Documents, Contractor acknowledges and agrees to the following waivers when executing Change Orders or Proposed Change Orders authorized in accordance with paragraph 9.4 of the General Conditions:

9.5.2.1 Contractor acknowledges and agrees that the adjustments in Contract Price and Contract Time stipulated in this Change Order represent full compensation for all increases or decreases in the cost of, or the time required to perform the entire Work under the Contract, arising directly or indirectly from this Change Order, including this and all previous Change Orders. Acceptance of this waiver constitutes an agreement between Department and Contractor that the Change Order represents an all-inclusive, mutually agreed upon adjustment to the Contract for all direct, indirect and consequential costs and delays, and that Contractor shall waive all rights to file a claim on this Proposed Change Order after it is properly executed.

9.5.2.2 Acceptance by Contractor is evidence of mutual accord and satisfaction for those adjustments in Contract Price and Contract Time stipulated in this Proposed Change Order, that Contractor shall submit detailed supporting data within fifteen (15) days in accordance with Articles 10 and 11 of the General Conditions to allow negotiation of outstanding issues, and that the changes ordered and documented by this Proposed Change Order will be incorporated into a future Change Order subsequent to agreement on all outstanding issues.
9.6 If the provision of any bond requires that the surety be notified of any change in the Work, it shall be Contractor's responsibility to so notify the surety and the amount of each applicable bond shall be adjusted accordingly. Contractor shall furnish proof to Department of such adjustment.

9.7 No claim by Contractor for an adjustment under this Article of the General Conditions shall be allowed if asserted after the date of final payment under this Contract.

**ARTICLE 10 - Change of Contract Price or Time**

10.1 The Contract Price constitutes the total compensation, subject to authorized adjustments, payable to Contractor for performing the Work. All duties, responsibilities and obligations assigned to or undertaken by Contractor shall be at its own expense without any change in the Contract Price or the Contract Time.

10.2 The Contract Price and the Contract Time may only be changed by a duly executed Change Order.

10.3 The value of the Work involved shall be determined by one of the following methods:

10.3.1 Where the Work involved is covered by unit prices contained in the Contract Documents, those unit prices shall be used to determine the cost of the Work involved.

10.3.2 Where the Work involved is not covered by unit prices contained in the Contract Documents, by application of mutually agreed upon unit prices to the quantities of the items of Work involved.

10.3.3 By mutual acceptance of a lump sum.

10.3.4 On the basis of the cost of the Work involved as provided in paragraph 10.4 of this Article plus a Contractor's fee for overhead and profit as provided in paragraph 10.7 of this Article.

10.3.5 Where the Department and Contractor cannot agree on any of the methods described above, and Department directs Contractor to proceed with the Work involved as provided in Article 10 of the General Conditions.

10.4 The Cost of the Work involved shall include the following items and shall not include any of the costs disallowed under this Article 10 of the General Conditions:

10.4.1 Payroll costs of employees in the direct employ of the Contractor in the performance of the Work involved in job classifications agreed upon by Department and Contractor. Payroll costs shall include, but shall not be limited to, salaries and wages plus the cost of fringe benefits which shall include social security contributions, unemployment, excise and payroll taxes, workers or workmen's compensation, health and retirement benefits, and sick leave applicable thereto. Such employees may include foremen at the site but shall not include employees in the job classifications itemized in paragraphs 10.6.1. The costs of performing the Work involved during other than normal working hours, as defined in paragraph 5.3.1, shall be included in the above to the extent authorized by Department and as required by Law.
10.4.2 Cost of all materials and equipment furnished and incorporated into the Work involved, including costs of transportation and storage thereof, and suppliers' field services connected therewith. All cash discounts shall accrue to Contractor unless Department deposits funds with Contractor with which to make payments, in which case, the cash discounts shall accrue to Department. All trade discounts, rebates and refunds, and all returns from sale of surplus materials and equipment shall accrue to Department, and Contractor shall make provisions so that they may be obtained.

10.4.3 Payments made by Contractor to subcontractors who perform a part of the Work involved. If required by Department, Contractor shall obtain competitive bids from prospective subcontractors acceptable to Contractor and shall deliver such bids to Department who will then determine which bids will be accepted. If a subcontract provides that the subcontractor's cost shall be determined in the same manner as Contractor's cost of the Work involved. All subcontracts shall be subject to the provisions of the Contract Documents, insofar as applicable.

10.4.4 Costs of special consultants, including but not limited to engineers, architects, testing laboratories, surveyors, attorneys and accountants, employed for services specifically related to the Work involved to the extent authorized in writing by Department.

10.4.5 Costs of Contractor owned equipment - Contractor shall be reimbursed for his ownership and operating costs for self-owned equipment employed on the Work involved. The rates of reimbursement shall be as listed on EquipmentWatch.com, its successor or equivalent, in effect on the date of issuance of the applicable Change Order or Proposed Change Order, or prior to performing the Work in a claim for an increase or decrease in the Contract Price and applied in the following manner.

10.4.5.1 Ownership costs - The equipment rates for ownership costs include depreciation on the original purchase, insurance, applicable taxes, interest on investment, storage, repairs, mobilization to and demobilization from the site of the Work involved, and profit reimbursement will be made for the hours on the Work involved. In no event shall the equipment rate billed to Department be at rates exceeding those described below.

10.4.5.2 Less than eight (8) hours of actual use or necessary for availability as approved by Engineer: The daily rate or the product of the hours of actual use multiplied by the hourly rate, whichever is less.

10.4.5.3 Between eight (8) hours and 40 hours of actual use: The weekly rate or the product of the hours of actual use divided by eight (8) and multiplied by the daily rate, whichever is less.

10.4.5.4 Between 40 hours and 176 hours of actual use: The monthly rate or the product of the hours of actual use divided by 40 multiplied by the weekly rate, whichever is less.

10.4.5.5 Over 176 hours of actual use: The product of the hours of actual use divided by 176 multiplied by the monthly rate.
10.4.5.6 Operating costs including fuel, lubricants, other operating expendables, and preventive and field maintenance. Operating costs do not include the operator's wages. Contractor shall be reimbursed the product of the hours of actual use multiplied by the estimated operating cost per hour.

10.4.5.7 The geographic area adjustment factor and the Rate adjustment tables for federal aid projects shall be applied to the equipment ownership rates.

10.4.5.8 The rates used shall be those in effect at the time the Work involved is to be done as listed in the then current EquipmentWatch.com, is successor or equivalent.

10.4.5.9 In the event that a rate is not established in EquipmentWatch.com, its successor or equivalent, for a particular piece of equipment, Department will establish rates for ownership and operating costs.

10.4.5.10 Equipment to be used by Contractor shall be specifically described by manufacturer and model number and be of suitable size and capacity to accomplish the Work involved. In the event Contractor elects to use equipment of a higher rental rate than equipment suitable for the Work involved, payment will be made at the rate applicable to the suitable equipment. Department and Engineer shall determine the suitability of the equipment. If there is a differential in the rate of pay of the operator of oversized or higher rate equipment, the rate paid for the operator will likewise be related to the suitable equipment.

10.4.5.11 Transportation, loading and unloading, installation, dismantling and removal costs shall be included only if such construction equipment and machinery is imported to the site solely to perform the Work involved in the Change Order Proposed Change Order, or Claim. All equipment costs shall cease when the use thereof is no longer necessary to perform the Work involved or the equipment cannot be used to perform the Work involved due to contractor actions or inactions. Payroll costs for employees operating the equipment shall be in accordance with paragraph 10.4.1 of the General Conditions.

10.4.5.12 Actual equipment use time documented by Engineer shall be on the basis that the equipment was on and used at the site. In addition to the leasing rate, equipment operational costs shall not exceed the estimated hourly operation rate as set forth in EquipmentWatch.com, is successor or equivalent. Daily records listing the equipment units and their respective operators, identification code, and actual usage and certified at the end of each day by Engineer shall be the record upon which actual equipment use shall be based. For multiple shift work sequences, the allowable equipment rate for second or third shifts shall not exceed 50-percent (50%) of the base rate. Idle equipment at the site and necessary to perform the Work involved but not in actual use shall be paid at the rate determined above. Idle time shall include a reasonable time allowance to and from the site, and be as documented by Engineer.

10.4.6 Costs of Contractor rented equipment.
10.4.6.1 In the event Contractor must rent a specific piece of equipment, payment will be the actual rental rate for the piece of equipment for the time that it is used on the Work involved or required by Department to be present, not to exceed the rental rate in EquipmentWatch.com, is successor or equivalent, plus the reasonable cost of moving the equipment onto and away from the site of the Work involved.

10.4.6.2 Contractor shall also be reimbursed for the operating cost of the rented equipment if that cost is not included in the rental cost. The operating cost shall be determined in the same manner as specified for Contractor owned equipment above. If contractor owned equipment is available on site to complete the work, Contractor shall be reimbursed only at the rate for owned equipment and there shall not be any reimbursement for transportation of equipment to or from site.

10.4.6.3 In the event area practice dictates the rental of fully manned or fueled and maintained equipment, payment will be made on the basis of an invoice for the rental of the fully manned, fueled and/or maintained equipment, including all costs incidental to its use, plus costs of moving to and from the site of the Work involved, provided the rate is substantiated by area practice.

10.4.6.4 Transportation, loading and unloading, installation, dismantling and removal costs shall be included only if such construction equipment and machinery is imported to the site solely to perform the Work involved in the Change Order, Proposed Change Order, or Claim. All equipment costs shall cease when the use thereof is no longer necessary to perform the Work involved or the equipment cannot be used to perform the Work involved due to Contractor actions or inactions. Payroll costs for employees operating the equipment shall be in accordance with paragraph 10.4.1 of the General Conditions.

10.4.7 The maximum amount of reimbursement for the ownership costs of Contractor owned equipment or for the rental costs of rented equipment shall be limited to the original purchase price of the equipment as listed in EquipmentWatch.com, is successor or equivalent. In the specific event where the reimbursement is limited by the original purchase price, Contractor shall be reimbursed for the operating cost per hour for each hour of actual use.

10.4.8 Supplemental costs due solely in connection with the Work involved to include the following:

10.4.8.1 The necessary transportation, travel and subsistence expenses of Contractor’s employees who are solely employed in the Work involved.

10.4.8.2 Costs, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office and temporary facilities at the site required, but excluding hand tools, protective clothing and other consumables which are used or consumed in connection with the Work involved and are individually valued at less than $100.00.
10.4.8.3 Sales, consumer use, or similar taxes for which Contractor is liable, exclusive of New York State and local sales taxes for materials, supplies and equipment incorporated into the Work.

10.4.8.4 Royalty payments and fees for licenses and permits.

10.4.8.5 Costs of utilities at the site including but not limited to electricity, telephone, fuel, heat, water, property rental and sanitary facilities.

10.5 The amount of credit to be allowed by Contractor to Department for any individual change in the Work which results in a net decrease in cost shall be the amount of the actual net decrease plus a deduction in Contractor’s fee equal to one-half of the fee derived from the application of paragraphs 10.7.2.1, 10.7.2.2 and 10.7.2.3 of this Article.

10.5.1 When more than one individual change is covered by one Proposed Change Order or Change Order, the adjustment in Contractor’s fee shall be the sum of the individual fees computed on each individual change in accordance with paragraphs 10.7.2.1 through 10.7.2.4.

10.6 The cost of the Work involved shall not include any of the following, all of which are to be considered general and overhead costs covered by the Contractor’s fee:

10.6.1 Payroll costs and other compensation of Contractor’s executives, principals (of partnership and sole proprietorships), general managers, engineers, architects, estimators, attorneys, superintendents, administrators, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks and other personnel employed by Contractor, at the site or not, for general administration of the Work including any Change Orders, and who are not specifically included in the agreed upon schedule of job classifications referred to in paragraph 10.4.1 of this Article.

10.6.2 Expenses of Contractor’s principal and branch offices other than Contractor’s office at the site. Costs derived from the computation of an extended or unabsorbed home office overhead rate by application of the Eichleay, Allegheny, Burden Fluctuation, or other similar methods.

10.6.3 Any part of Contractor’s capital expenses, including interest on Contractor’s capital employed for the Work involved and charges against Contractor for delinquent payments.

10.6.4 Cost of premiums for all bonds and insurance whether or not Contractor is required by the Contract Documents to purchase and maintain the same.

10.6.5 Costs incurred in the preparation of Proposed Change Orders or Change Orders or in preparation or filing of claims.

10.6.6 Expenses of Contractor associated with anticipated lost profits or lost revenues, lost income or earnings, lost interest on earnings or unpaid retainage.

10.6.7 Small tools used or consumed in the performance of the Work involved having an individual value of less than $100.00.
10.6.8 Costs due to negligence of Contractor or any subcontractor anyone directly or indirectly employed by them for whose acts any of them may be liable, including, but not limited to correction of defective work, disposal of equipment or material wrongly supplied and repairing any damage to property.

10.6.9 Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in paragraph 10.4 of this Article, all of which are to be considered general and overhead costs covered by the Contractor’s fee.

**Contractor’s Fee:**

10.7 The Contractor’s fee for general and administrative overhead costs (whether at the site or in Contractor’s principal or branch offices), small tools and profit on the Work involved shall be determined by negotiations in accordance with this paragraph.

10.7.1 Contractor shall negotiate with Department for reasonable overhead rates and fair and reasonable profit based on assumptions of risk, exposure to weather, size of the change, labor to material ratio, equipment requirements, and time of performance.

10.7.2 In no case shall the Contractor’s fee exceed the following percentages of the various percentages of the Cost of the Work involved.

10.7.2.1 For costs incurred under paragraph 10.4.1 (Payroll Costs) of this Article, the Contractor’s fee shall not exceed fifteen-percent (15%).

10.7.2.2 For costs incurred under paragraph 10.4.2 (Costs of Materials and Equipment) of this Article, the Contractor’s fee shall not exceed ten-percent (10%).

10.7.2.3 For costs incurred under paragraph 10.4.3 (Cost of Subcontracts) of this Article, the Contractor’s fee shall not exceed five-percent (5%) and the subcontractor’s fee shall not exceed ten-percent (10%).

10.7.2.4 For costs incurred under paragraph 10.4.3 of this Article, for work performed by a subcontractor’s subcontractor, the Contractor’s and the first subcontractor’s fees shall not exceed five-percent (5%) each and the second subcontractor’s fee shall not exceed ten-percent (10%).

10.7.2.5 No fee shall be paid on the costs itemized under paragraphs 10.4.4 and 10.4.5 nor on subcontractors’ fees derived in accordance with paragraphs 10.7.2.3 and 10.7.2.4.

10.7.3 No fee shall be paid on premium portion of wages nor on increased wages due to delays.

10.8 Changes in the Contract Price due to changes in the Contract Time.

10.8.1 An increase in the Contract Price due solely to delays causing extensions in the Contract Time will be allowed only if the delays to the Work, or parts thereof, arise from acts or omissions of Department or Engineer which are longer than the time period(s) provided for review(s) or decision(s) as provided for in the Contract Documents, and provided further that the delays arise from changes in the Work covered by Proposed Change
Orders or Change Orders prepared pursuant to Article 9 of the General Conditions or from suspensions of Work pursuant to paragraph 14.1 of the General Conditions. However no adjustment in the Contract Price shall be made under this paragraph for the following reasons:

10.8.1.1 For any extensions granted in the Contract Time to the extent that performance would have been so extended by any other cause including fault or negligence of Contractor or subcontractors, suppliers or other persons or organizations.

10.8.1.2 For any acceleration alternative in lieu of an extension proposed by Contractor, to the extent that the acceleration costs exceed those in connection with the alternative extension in Contract Time.

10.8.1.3 For which a Contract Price is provided or excluded under any other provision of the Contract Documents.

10.8.1.4 For delays which are covered by or which could be covered by reallocating the Total Float or a portion of it.

10.8.2 Recovery of damages for delay on account of extensions in Contractor’s Progress Schedule or in connection with acceleration alternatives thereof will be allowed only when said delays extend the Work, or a part thereof, beyond the applicable Contract Time(s).

10.8.3 It is further expressly agreed and understood that Contractor will not be entitled to any compensation or damages on account of delays which meet the requirements of paragraph 10.12.3 of the General Conditions for time extensions but which can or could have been avoided by reallocating portions of the Total Float. Under this requirement, it is further understood and agreed that the only remedies for delays which are figured to cause an extension in the Contract Time or form the basis for a proposal for an acceleration alternative thereof solely due to the use of Total Float will consist of an increase in Contract Time only and shall exclude Contractor’s right to recover any delay damages or compensation from Department.

10.9 In submitting proposals or asserting claims for changes under this Article, Contractor acknowledges and agrees that no adjustment shall be made: 1) for any escalation costs for any part of the Work which is not delayed beyond the applicable latest possible dates specified in the approved Progress Schedule, or 2) for any acceleration costs incurred without prior authorization from Department, or 3) for which an adjustment has been provided for, limited as to extent, or excluded under any other provision of the Contract Documents.

10.10 Contractor quotations substantiating the amount or extent of any proposed adjustment in Contract Price or Contract Time shall cover all known amounts or extents (direct, indirect and overhead) to which Contractor is entitled as a result of the proposed change. Pursuant to this requirement, Contractor acknowledges and agrees to the following waivers when executing Proposed Change Orders and Change Orders authorized in accordance with Article 9:

10.10.1 Contractor acknowledges and agrees that the adjustments in Contract Price and Contract Time stipulated in the Change Order represent full compensation for all increases or decreases in the cost of, or the time required to perform, the entire Work...
under the Contract arising directly or indirectly from the Change Order. Acceptance of this waiver constitutes an agreement between Contractor and Department that the Change Order represents an all-inclusive, mutually agreed upon, adjustment to the Contract for all direct, indirect and consequential costs and delays, and that Contractor will waive all rights to file a claim on the Change Order after it is duly executed.

10.10.2 Acceptance by Contractor is evidence of mutual accord and satisfaction for those adjustments in the Contract Price and Contract Time stipulated in the Proposed Change Order, that Contractor will submit detailed supporting data within fifteen (15) days in accordance with Articles 10 and 11 of the General Conditions to allow negotiation of outstanding issues, and that the changes ordered and documented by the Proposed Change Order will be incorporated into a future Change Order subsequent to agreement on all outstanding issues.

10.11 Additional costs incurred due to acceleration or additional work performed by Contractor without an agreed upon Proposed Change Order will not entitle Contractor to an increase in Contract Price or Contract Time, except in the case of emergency work as provided in paragraph 5.23 of the General Conditions or in the case of uncovering Work as provided in paragraph 12.9 of the General Conditions.

10.12 The Contract Time may be changed only by a duly executed Change Order. Any proposal for an extension or shortening of the Contract Time shall be based on a Proposed Change Order in accordance with the provisions of this Article.

10.12.1 Contractor requests substantiating the extent of increase in the Contract Time shall be delivered to Engineer within fifteen (15) days of the event causing the proposed need for the extension in the Contract Time unless Department, in writing, allows an additional period of time. Contractor shall prove that the delays have materialized or will materialize despite reasonable, prudent, and diligent efforts to prevent such delays and meet the criteria set forth in this Article. Any delays by Contractor in submittal of proposals will not justify a delay or be basis for an extension of the Contract Time.

10.12.2 Extensions in Contract Time due to delays to parts of the Work will not be granted until all Total Float available for those parts of the Work has been used.

10.12.3 An extension in the Contract Time will not be granted unless Contractor can demonstrate, through an analysis of the Progress Schedule approved in accordance with the applicable provisions of the Standard Specifications, that the delay in completing the applicable parts of the Work within the applicable Contract Time(s) arises from unforeseeable causes beyond the control and without the fault or negligence of Contractor or its Subcontractors, Suppliers or other persons or organizations, and which Contractor could not have guarded against, and that such causes do or will cause extension of the schedule for that part of the Work beyond the applicable Contract Time. Examples of such causes include 1) acts of God or of the public enemy, 2) fires, floods, epidemics, quarantine restrictions, 3) strikes, freight embargoes, 4) unusually severe weather, 5) delays of Subcontractors or Suppliers at any tier arising from unforeseeable causes beyond the control and without fault or negligence of both Contractor and the Subcontractors, Suppliers or other persons organizations.

10.12.4 All time limits stated in the Contract Documents are of the essence. They have been developed by taking into account:
10.12.4.1 The scope of the Work under the Contract Documents;

10.12.4.2 Reasonable time for performance of the Work, or parts thereof, as a whole; and,

10.12.4.3 The perceived sensitivity of the Work, or parts thereof, as a whole, to the potential delaying effect of causes meeting the requirements of paragraph 10.12.3.

10.12.4.4 Therefore, and as long as delays meeting the requirements of paragraph 10.12.3 are not to be considered by Contractor in the initial development of the Progress Schedule pursuant to paragraph 1.6 of the General Conditions and the Progress Schedule Section of the Standard Specifications, the initial Progress Schedule developed by Contractor could show Total Float with respect to the Contract Time, or contract Times. Pursuant to the Float sharing requirements of the Contract Documents (as set forth in the provisions of Progress Schedule Section of the Standard Specifications) any such Total Float materializing between Contractor’s completion of the Work, or part thereof, as anticipated by Contractor’s approved progress Schedule, and the corresponding Contract Time(s) will be available to Department, Engineer, Contractor and others to absorb delays that cannot be mitigated by any other means.

10.12.5 The provisions of Section 10.11 of this Article shall govern and be applicable to the following:

10.12.5.1 Changes in Contract Time initiated by Department or Contractor due to delays which meet the requirements of paragraph 10.12.4.

10.12.5.2 Contractor proposals to accelerate the Progress Schedule, in lieu of the alternate extension of Contract Time, due to delays meeting the requirements of paragraph 10.12.3.

10.12.6 The provisions of paragraphs 10.11, 10.12.2, and 10.12.3 shall exclude recovery for damages arising out of an acceleration alternative to an extension in Contract Time on account of delays not meeting the requirements for extensions in Contract Time set forth in this Article.

10.12.7 The provisions of this Article 10 shall not exclude recovery for damages (including compensation for additional professional services and court costs) for delay by either party, except as otherwise specifically disallowed in this Article and in other provisions of the Contract Documents.

10.13 Failure, refusal or neglect by Contractor to comply with the time requirements for delivery of written Proposed Change Orders or notice of a claim shall be considered to be a waiver by Contractor of any request or claiming for extension in Contract Time.

10.13.1 Contractor proposals (or claims) substantiating Contractor’s proposed adjustment in Contract Price shall be delivered within the time period stipulated in paragraph 9.3 and 9.4, unless Department in writing, allows an additional period of time to ascertain
accurate cost data. Contractor shall prove that additional costs were necessarily incurred, despite Contractor's reasonable, prudent, and diligent efforts to prevent such costs and which meet the criteria set forth in this Article. Any delays in the submittal of Contractor proposals relative to adjustments in Contract Price will not justify a delay or constitute basis for an increase in Contract Price or an extension in Contract Time.

10.13.2 Contractor proposals (or claims) shall be submitted on forms required by Contract Documents, and shall remain firm for a period of at least 60 days from delivery of the proposal (or claim). Proposals (or claims) shall include itemized estimates of all costs and schedule adjustments that will result directly or indirectly from the changes described. Unless otherwise specified, itemized estimates shall be in accordance with the requirements of this Article of the General Conditions and in sufficient detail to reasonably permit an analysis by Engineer and Department of all quantities involved, labor and payroll costs, productivity rates, material costs, Subcontractor and Supplier costs, supplemental costs as described in paragraph 10.4.8, special consultant costs as described in paragraph 10.4.4, equipment costs, general and administrative overhead costs, field office overhead costs, and profit and shall cover all aspects of the Work involved in the change, whether such was deleted, added, changed, or impacted. Any amount claimed for Subcontractors, Suppliers or other persons or organizations shall be similarly supported. Itemized schedule adjustments shall be sufficiently detailed to permit an analysis of effects on the Progress Schedule as required in the Standard Specifications.

ARTICLE 11 - Unit Price Work and Cash Allowances

Cash Allowances:

11.1 Contractor shall include in the Contract Price all cash allowances named in the Contract Documents and all Work covered by those cash allowances shall be performed for an amount not to exceed those allowances without prior approval in writing by Engineer.

11.1.1 The allowances include the cost to Contractor (less any applicable trade discounts) of materials labor and equipment required by the allowances to be delivered at the site, and all applicable taxes; and the cost documentation requirements of Articles 9, 10, 11 apply to cash allowances.

11.1.2 Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

Unit Price Work:

11.2 Where the Contract Documents provide that all or part of the Work to be performed on the basis of Unit Prices, the following shall apply:

11.2.1 The original Contract Price shall include the sum of the bid unit prices for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated on the Contract Bid Form.
11.2.2 Unless otherwise provided by the Contract Documents, the estimated quantities of Unit Price Work are not guaranteed and are solely for the purpose of comparing Bids and determining the initial Contract Price.

11.2.3 Engineer shall determine the actual quantities and classifications of Unit Price Work performed by Contractor and will review with Contractor preliminary determinations before recommending an Application for Payment for those items.

11.2.4 Contractor shall have included overhead and profit in the price of each separately stated unit price item bid.

11.2.5 The unit price of an item of Unit Price Work shall be subject to re-evaluation, negotiation, and possible adjustment under the following conditions:

11.2.5.1 If the total cost of a particular item of Unit Price Work changes by $30,000 or five-percent (5%) or more of the total Contract Price, whichever is less, and the variation in the quantity of that particular item of Unit Price Work performed by Contractor differs by more than fifteen-percent (15%) from the estimated quantity of such item indicated in the Agreement; and

11.2.5.2 If Contractor justifies and adequately documents to the Department’s satisfaction additional expenses have been incurred as a result thereof, or

11.2.5.3 If Department believes that the quantity variation entitles Department to an adjustment in the Unit Price,

Either Department or Contractor may make a request for an adjustment in the Contract Price in accordance with the Contract Documents. If the parties are unable to agree as to the effect of any such variations in the quantity of Unit Price Work performed, a claim may be made.

11.2.6 The negotiated Unit Price shall be applicable only to the variation in quantities above one hundred-fifteen-percent (115%) or below eighty-five-percent (85%) of the quantities estimated or indicated.

11.2.7 If Department or Contractor believes that the quantity variation requires an extension or shortening in Contract Time, either party shall within seven (7) working days of knowledge of the variation in quantities, submit a written Proposed Change Order to the other party and to Engineer, and substantiate the request within fifteen (15) days thereafter in accordance with the analysis and documentation provisions of the Standard and Supplementary Specifications.

**ARTICLE 12 - Warranty and Guarantee; Tests and Inspections; Correction, Removal or Acceptance of Defective Work**

**Warranty and Guarantee:**

12.1 Contractor warrants and guarantees to Department that all Work shall be in accordance with the Contract Documents and shall not be defective. Immediate notice of all defects shall be given to
Contractor by Engineer. All defective Work, whether or not in place, may be rejected, corrected or accepted as provided in this Article.

12.1.1 The obligations of Contractor under this paragraph 12.1 shall be in addition to and not in limitation of any obligation imposed upon it by special guarantees required by the Contract Documents or by Law.

12.1.2 Notwithstanding anything in these Contract Documents to the contrary, when a particular item of equipment or part of the Work reaches Substantial Completion upon successful performance of Pre-operational Testing, and a) is not placed in continuous service until the commencement of the Correction Period, or b) is placed in continuous service upon reaching Substantial Completion (as a segment of a completed Project) but use will be limited until all segments of the Project reach substantial completion thereby commencing the Correction Period, and notwithstanding anything in the Contract Documents to the contrary, Contractor shall maintain the particular item of equipment or part of the Work in good order and in proper working condition during the period between the particular Substantial Completion date and the commencement of the Correction Period, and for such maintenance Contractor shall receive no adjustment in Contract Price. Also Contractor shall maintain the warranties and guarantees required under paragraph 12.1 of the General Conditions in full force and effect during the period between the particular item's Substantial Completion date and the commencement of the Correction Period, and for such warranties and guarantees Contractor shall receive no adjustment in Contract Price.

12.1.3 The warranties and guarantees provided by Contractor under paragraph 12.1 of the General Conditions shall remain in full force and effect from the date of Substantial Completion of the Work, or part thereof, until one year after the date of commencement of the Correction Period or such a longer period as may be prescribed by Law or the terms of any applicable specific warranty or guarantee required by the Contract Documents or by any specific provision of the Contract Documents.

One Year Correction Period:

12.2 If within the period from the date of Substantial Completion of a particular item of equipment or a designated part of the Work to one (1) year after the commencement of the Correction Period, or such longer period as may be prescribed by Federal or New York State Law or by the terms of any applicable special guarantee required by the Contract Documents or by any specific provision of the Contract Documents, the particular item of equipment or designated part of the Work is found to be defective, Contractor shall promptly, without an adjustment in Contract Price and in accordance with Department’s or Engineer’s written instructions, either correct such Defective Work, or if it has been rejected by Department or Engineer, remove it from the site and replace it with Work which conforms to the requirements of the Contract Documents. Department or Engineer may direct the correction or removal and replacement of Defective or rejected Work. In addition to any other remedies which Department may have, Contractor shall pay the indirect and consequential costs of such correction or removal and replacement, including but not limited to fees and charges of engineers, architects, attorneys and other professionals, any additional expenses incurred by Department due to delays to others performing work under a separate contract with Department, and other contractual obligations, if the Defective Work is not corrected or the rejected Work is not removed and replaced within 30 days of the Department's or Engineer's written rejection or request for rejection of Work unless otherwise provided for in writing. In the event that Contractor fails to pay such costs within 30 days after receipt of an
invoice from Department, a Change Order or Proposed Change Order may be issued incorporating the unpaid amount, and Department shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, a claim may be made therefore as provided in Articles 8, 9 and 10 of the General Conditions.

12.2.1 At the date of Substantial Completion of the Work, the parties have agreed on the date for commencement of the Correction Period. However, Department may at its sole option advance or delay the date for commencement of the Correction Period, and Contractor's obligations to extend warranties and guarantees in accordance with paragraphs 12.1.2 and 12.1.3 or to maintain the Work in accordance with paragraph 12.1.2 and 12.1.3 until then shall remain absolute. Applicable Change Orders or Proposed Change Orders shall be executed by the parties to adjust the Contract Price, as appropriate, on the basis of the unit prices declared in Contractor's Bid for extended warranty and extended maintenance requirements.

12.2.2 No later than 30 days before the date for commencement of the Correction Period, Engineer shall notify Contractor in writing of the date upon which the Correction Period is expected to commence, and Contractor shall ensure that the parts of the Work which reached Substantial Completion upon successful performance of Pre-operational Testing but were not placed in continuous service, are ready in their entirety by such date for use by Department as contemplated in the Contract Documents. In addition to any other damages payable by Contractor under these Contract Documents, Contractor shall also be liable for any damages suffered by Department on account of the parts of the Work which reached Substantial Completion upon successful performance of Pre-operational Testing but were not placed in continuous service at the beginning of the Correction Period because they were not ready for continuous utilization for the purposes for which they are intended.

12.2.3 Each month during the period between the date of Substantial Completion of parts of the Work which reached Substantial Completion upon successful performance of Pre-operational Testing and the date of commencement of the Correction Period, Contractor shall certify to Engineer in writing that the said parts of the Work are being properly maintained and will be ready for use by Department upon commencement of the Correction Period.

12.2.4 During the period described in Section 12.2.3 until commencement of the Correction Period, Contractor shall bear all risks of injury, loss, or damage to any part of the Work arising from the elements or from any other cause. Contractor shall rebuild, repair, restore, and make good at no cost to Department all injuries, losses, or damage to any portion of the Work occasioned by any cause and shall at no expense to Department provide suitable drainage and erect such temporary structures and take all other actions as are necessary for the protection of the Work. Suspension of the Work or the granting of an extension in Contract Time for any cause shall not relieve Contractor of its responsibility for the Work as herein specified.

12.2.5 Contractor's responsibilities under this Paragraph 12.2 are in addition to, not in lieu of, all other obligations imposed by these Contract Documents.
Access to Work:

12.3 Representatives of Department, Engineer, and representatives of testing agencies and governmental agencies with jurisdictional interests will have access to the Work at all times for observation, inspection and testing. Contractor shall provide proper and safe conditions for such access. Inspections, tests or observations by Engineer, Department or third parties may be performed to provide information to Department on the progress of the Work, however, this provision is not intended to create any duty or obligation to Contractor by Department or Engineer, nor is the information provided intended to fulfill Contractor's obligations under the Contract.

Tests and Inspections:

12.4 Contractor shall give Engineer timely notice of readiness of the Work for all required inspections, tests or approvals.

12.5 If a Law specifically requires any Work or part thereof, to be inspected, tested or approved, Contractor shall assume full responsibility therefor, pay all costs in connection therewith and furnish to Engineer the required certificates of inspection, testing or approval. Except as provided in Article 5, Contractor shall be responsible for and shall pay all costs in connection with any inspection or testing required in connection with Department’s or Engineer’s acceptance of materials or equipment proposed or submitted to Department and Engineer for approval prior or subsequent to Contractor’s purchase thereof for incorporation in the work. The cost of all inspections, tests and approvals in addition to the above which are required by the contract documents shall be paid by Contractor.

12.6 All inspections, tests or approvals other than those required by Law to be performed or given by public body having jurisdiction over the Work or any part thereof, shall be performed by organizations acceptable to Department and Engineer. Contractor shall perform sufficient inspection and testing of the Work to support the warranty and guarantee requirements of paragraph 12.1 and 12.2 of the General Conditions. Reference is made to the Supplementary Conditions, Standard Specifications and Supplementary Specifications for provisions applicable to the procurement of an independent testing laboratory.

12.7 If any Work, including the work of others, which is to be inspected, tested or approved is covered without written concurrence of Engineer, it must, if requested by Engineer, be uncovered for inspection. Such uncovering shall be at Contractor's expense unless Contractor has given Engineer timely notice of Contractor's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice.

12.8 Neither inspections by Engineer nor inspections, tests or approvals by others shall relieve Contractor from Contractor’s obligations to perform the Work in accordance with the Contract Documents.

Uncovering Work:

12.9 If any work is covered contrary to the written request of Engineer, it must, if requested by Engineer, be uncovered for Engineer’s inspection and replaced at Contractor’s expense.

12.10 If Engineer considers it necessary or advisable that covered Work be inspected by Engineer or inspected or tested by others, Contractor, at Engineer’s request, shall uncover, expose or
otherwise make available for observation, inspection or testing as Engineer may require, that portion of the Work in question, furnishing all necessary labor, material and equipment.

12.10.1 If it is found that such Work is Defective, Contractor shall bear all direct, indirect and consequential costs of such uncovering, exposure, observation, inspection and testing, and of satisfactory reconstruction, including but not limited to fees and charges of engineers, architects, attorneys and other professionals, any additional expenses incurred by Department due to delays to others performing work under a separate contract with Department, and other contractual obligations, Contractor shall further bear the responsibility for keeping the Work on schedule and shall not be entitled to any extension of Contract Time or recovery of any delay damages due to the uncovering.

12.10.2 If, however, such Work is not found to be Defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to such uncovering, exposure, observation, inspection, testing and reconstruction pursuant to Articles 9, 10 and 11.

12.10.3 When covered Work is uncovered and found to be Defective, all direct, indirect and consequential costs as established in paragraph 12.10.1 shall be paid by Contractor. In the event that Contractor fails to pay such costs within thirty (30) days after receipt of an invoice from Department, a Change Order or Proposed Change Order may be issued incorporating the unpaid amount as an appropriate reduction in the Contract Price, and if the parties are unable to agree as to the amount thereof, the Contractor may make a claim therefore as provided in Articles 9 and 10 of the General Conditions.

**Department May Stop the Work:**

12.11 If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to furnish or perform the Work in such a way that the completed Work will conform to the Contract Documents, Department may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Department to stop the Work shall not give rise to any duty on the part of Department to exercise this right for the benefit of Contractor or any other party.

12.11.1 Contractor shall bear all direct, indirect and consequential costs of such order to Contractor to stop Work including but not limited to fees and charges of engineers, architects, attorneys and other professionals, any additional expenses incurred by Department due to delays to others performing work under a separate contract with Department, and other contractual obligations, and Contractor shall further bear the responsibility for maintaining schedule and shall not be entitled to any extension of contract time or recovery of any delay damages due to the order to stop Work.

12.11.2 In the event that Contractor fails to pay such costs within thirty (30) days after receipt of an invoice from Department, a Change Order or Proposed Change Order may be issued incorporating the unpaid amount as an appropriate reduction in the Contract Price. If the parties are unable to agree as to the amount thereof, the Contractor may make a claim therefore as provided in Articles 8, 9, 10, and 11 of the General Conditions.
Correction or Removal of Defective Work:

12.12 If required by Engineer, Contractor shall promptly, as directed, either correct all defective Work, whether or not fabricated, installed or completed, or, if the Work has been rejected by Engineer, remove it from the site and replace it with non-defective Work that conforms with the Contract Documents. Contractor shall bear all direct, indirect and consequential costs of such correction or removal including but not limited to fees and charges of engineers, architects, attorneys and other professionals, any additional expenses incurred by Department due to delays to others performing work under a separate contract with Department, and other contractual obligations. Contractor shall further bear the responsibility for keeping the Work on schedule and shall not be entitled to any extension in Contract Time or recovery of any delay damages due to the correction or removal. In the event that Contractor fails to pay such costs within thirty days after receipt of an invoice from Department, a Change Order or Proposed Change Order may be issued incorporating the unpaid amount, as an appropriate reduction in the Contract Price. If the parties are unable to agree as to the amount thereof, the Contractor may make a claim therefore as provided in Articles 8, 9, 10, and 11 of the General Conditions.

Acceptance of Defective Work:

12.13 If, instead of requiring correction or removal and replacement of defective Work, Department prefers to accept it, Department may do so. Contractor shall bear all direct, indirect and consequential costs attributable to Department’s evaluation and determination to accept such Defective Work, such costs to include but not be limited to fees and charges of engineers, architects, attorneys and other professionals, any additional expenses incurred by Department due to delays to others performing work under a separate contract with Department, and other contractual obligations. Contractor shall further bear the responsibility for keeping the Work on schedule and shall not be entitled to any extension in Contract Time or recovery of any delay or acceleration damages due to Department’s evaluation and determination to accept such Defective Work. If any such acceptance occurs prior to Engineer’s recommendation of final payment, a Change Order may be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and Department shall be entitled to an appropriate reduction in the Contract Price. In the event that Contractor fails to pay such costs within thirty (30) days after receipt of an invoice from Department, or if the parties are unable to agree as to the amount thereof, Contractor may make a claim therefore as provided in Articles 8, 9, 10, and 11 of the General Conditions. If the acceptance occurs after final payment, an appropriate amount will be refunded by Contractor to Department.

Department May Correct Defective Work:

12.14 If Contractor fails within a reasonable time after written notice of Engineer to proceed to correct and to correct Defective Work or to remove and replace rejected Work as required by Engineer, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, Department may, after seven (7) days' written notice to Contractor, correct and remedy any such deficiency. To the extent necessary to complete corrective and remedial action, Department may exclude Contractor from all or part of the site, take possession of all or part of the work and suspend or terminate Contractor's services related thereto, take possession of Contractor's tools, appliances, construction equipment and machinery at the site and incorporate in the Work all materials and equipment stored at the site or for which Department has paid Contractor but which are stored elsewhere. Contractor shall allow Department, and Department's representatives, agents and
employees such access to the site as may be necessary to enable Department to exercise the rights and remedies provided by this paragraph and the Contract Documents. All direct, indirect and consequential costs of Department in exercising such rights and remedies will be charged against Contractor in an amount approved as to reasonableness by Engineer, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and Department shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, Contractor may make a claim therefore as provided in Article 8, 9, 10, and 11. Such direct, indirect and consequential costs shall include but not be limited to fees and charges of engineers, architects, attorneys and other professionals, all costs of delay and all costs of repair and replacement of work of others destroyed or damaged by correction, removal or replacement of Contractor’s Defective Work. Contractor shall not be allowed an extension of the Contract Time because of any delay in performance of the Work attributable to the exercise by Department of Department’s rights and remedies hereunder.

ARTICLE 13 - Payments to Contractor and Completion

Schedule of Values:

13.1 The schedule of values established as provided in paragraph 1.4 and 1.6 of the General Conditions shall serve as the basis for progress payments. Progress payments for Unit Price Work shall be based on the number of units completed. Department will furnish Application for Payment forms.

Application for Progress Payment:

13.2 At least fourteen (14) days before each progress payment is scheduled to be submitted to the Department, Contractor shall submit to Engineer for review an Application for Payment on forms furnished by Department filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the site or at another location agreed to in writing, the Application for Payment shall also be accompanied by bills of sale, invoices or other documentation supporting the cost, together with documents warranting that Department has received the materials and equipment free and clear of all liens, charges, security interests and encumbrances (each and all of these terms are hereinafter referred to as "Liens"). Each Application for Payment shall contain a certification by Contractor that progress payments received from Department on account of the Work have been applied by Contractor and its Subcontractors to discharge in full all of Contractor’s and its Subcontractors’ obligations stated in the prior Application for Payment, and that Contractor has verified the accuracy of the progress reported to have been completed by Contractor or its Subcontractors in the Application for Payment. Notwithstanding any other provisions of the Contract Documents to the contrary, neither Department nor Engineer are under any duty or obligation whatsoever to any Subcontractor or Supplier to insure that payments due and owing by Contractor to any of them are or will be made. Such parties shall rely only on Contractor’s surety bonds for remedy of nonpayment by Contractor. The amount of retainage with respect to progress payments will be as provided for by the laws of New York State.

13.2.1 An Application for Payment a) will not be approved if the as-built documents, including but not limited to Drawings legibly marked in accordance with Contract Documents to record actual construction, are not kept current, and b) will not be approved until the
completed as-built documents, showing all variations between the Work as actually constructed and as originally shown on the Drawings and other Contract Documents, have been inspected by Engineer. For the purpose of this paragraph, the as-built documents will be considered current if they include all of the documents itemized in paragraph 5.19 together with any other information that supplements or changes the original Contract Documents which has been delivered or otherwise made known to Contractor prior to the time when Application for Payment is to be reviewed by Engineer.

13.2.2 An Application for Payment will not be approved until Contractor has submitted and Engineer has reviewed the Progress Schedule and submittals required in Contract Documents which are due prior to that Application for Payment.

**Contractor's Warranty of Title:**

13.3 Contractor warrants and guarantees that title to all Work, materials and equipment covered by any Application for Payment, whether or not incorporated in the Project, shall pass to Department no later than the time of payment free and clear of all Liens.

**Review of Applications for Progress Payment:**

13.4 Engineer shall, within five (5) days after receipt of each Application for Payment, either recommend payment in writing and present the Application to Department or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the application. After presentation of the application for payment with Engineer's recommendation, the amount recommended shall be paid in accordance with New York State Law upon approval of the Department.

13.5 Department may refuse to make payment of the full amount recommended by Engineer for one or more of the following reasons: claims have been made against Department on account of Contractor's performance, or furnishing of the Work, Liens have been filed in connection with the Work, there are other facts or circumstances entitling Department to a set-off against the amount recommended, or Department has determined that Work performed by Contractor does not conform to Contract Documents including, but not limited to, moneys payable by Contractor to Department pursuant to the requirements of Articles 5 and 12 of the General Conditions. In the event of such refusal to pay the full recommended amount, Department must give Contractor prompt written notice (with a copy to Engineer) stating the reasons for such action.

**Substantial Completion:**

13.6 When Contractor considers all or part of the Work ready for its intended use, Contractor shall notify Department and Engineer in writing that the Work or specified part thereof, is substantially complete except for items specifically listed by Contractor as incomplete, and request that Engineer issue a certificate of Substantial Completion for the Work, or such specified part thereof. Within a reasonable time thereafter, not to exceed 30 days, Department, Contractor and Engineer shall make an inspection of the Work, or specified part thereof, to determine the status of completion. If Engineer or Department does not consider the Work, or specified part thereof, substantially complete, Engineer shall notify Contractor in writing giving the reasons therefor, after consultation with the Department. If Engineer considers the Work, or part thereof, substantially complete, Engineer shall prepare and deliver to Department a tentative certificate of Substantial
Completion for the Work, or part thereof, which shall fix the date of Substantial Completion. There shall be attached to the certificate a list of items to be completed or corrected before final payment, and Engineer's written recommendation as to a division of responsibilities between Department and Contractor pending final payment including but not limited to security, operation, safety, maintenance, heat, utilities, insurance and warranties. Department shall have seven (7) days after receipt of the tentative certificate with attachments during which to make written objection to Engineer as to any provisions of the referenced submittals and to direct a revision of the tentative certificate. Unless Department and Contractor agree otherwise in writing and so inform Engineer or Department directs the revision of the certificate of Substantial Completion for the Work, or specified part thereof, Engineer’s recommendation will be binding on Contractor until final payment.

13.7 Department shall have the right to exclude Contractor from the Work, or part thereof, after the date of Substantial Completion for the Work, but Department shall allow Contractor reasonable access to complete or correct items on the tentative list.

**Partial Utilization:**

13.8 Department may use any finished part of the Work which has specifically been identified in the Contract Documents, or which Department, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Department without significant interference with Contractor's performance of the remainder of the Work, may be accomplished prior to Substantial Completion of all the Work subject to the following:

13.8.1 Department at any time may direct Contractor in writing to permit Department to use any such part of the Work which Department believes to be ready for its intended use and substantially complete. Contractor may certify to Department and Engineer that said part of the Work is substantially complete and request Engineer to issue certificate of Substantial Completion for that part of the Work. Within a reasonable time after such direction, Department, Contractor and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not determine that part of the Work to be substantially complete, Engineer will notify Department and Contractor in writing giving the reasons therefor. The provisions of paragraphs 13.6 and 13.7 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

13.8.2 Department may at any time direct Contractor in writing to permit Department to take over operation of any such part of the Work although it is not substantially complete. A copy of such request will be sent to Engineer and within a reasonable time thereafter Department, Contractor and Engineer shall make an inspection of that part of the Work to determine its status of completion and will prepare a list of the items remaining to be completed or corrected thereon before final payment. If Contractor does not object in writing to Department and Engineer that such part of the Work is not ready for separate operation by Department, Engineer shall submit to Department a list of items to be completed or corrected together with a written recommendation as to a division of responsibilities between Department and Contractor, including but not limited to security, operation, safety, maintenance, utilities, insurance and warranties pending final payment for such Work. Department shall have seven (7) days to make written objection to Engineer’s list and recommended division of responsibilities to direct a revision thereof. Such directed revision or otherwise objected list and recommended division of responsibilities, shall become binding upon Department and Contractor at the time when
Department takes over such operation unless they shall have agreed otherwise in writing. During such operation and prior to Substantial Completion of such part of the Work, Department shall allow Contractor reasonable access to complete or correct items on said list and to complete other related Work.

**Final Inspection:**

13.9 Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will make a final inspection with Department and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. Contractor shall immediately take such measures as are necessary to remedy such deficiencies.

**Final Application for Payment:**

13.10 After Contractor has completed all corrections to the satisfaction of Engineer and Department and delivered all maintenance and operating instructions, schedules, guarantees, Bonds, certificates of inspection, as-built documents (as provided in paragraph 5.19) and other documents - all as required by the Contract Documents, and after Engineer has indicated that the Work is acceptable (subject to the provisions of paragraph 13.12), Contractor may make application for final payment following the procedures for progress payments. The final Application for Payment shall be accompanied by all documentation called for in the Contract Documents, together with complete and legally effective releases or waivers satisfactory to Department of all Liens arising out of or filed in connection with the Work. In lieu thereof and as provided for by the laws of New York State and approved by Department, Contractor may furnish receipts or releases in full and an affidavit of Contractor that such receipts and releases include all labor, services, material and equipment for which a Lien could be filed, and that all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Department or Department’s property might in any way be responsible, have been paid or otherwise satisfied; and consent of the surety, if any, to final payment. If any Subcontractor or Supplier fails to furnish a release or receipt in full, Contractor may furnish a Bond or other collateral satisfactory to Department to indemnify Department against any Lien.

**Final Payment and Acceptance:**

13.11 If, on the basis of Engineer’s inspection of the work during construction and final inspection, and Engineer’s review of the final application for payment and accompanying documentation, Engineer has determined that the work has been completed in substantial conformance with the Contract Documents and Contractor’s other obligations under the Contract Documents have been fulfilled, Engineer will, within ten (10) days after receipt of the final application for payment, indicate in writing Engineer’s recommendation of payment and present the application to Department for payment along with a certificate that the work was completed in substantial conformance with the contract documents. Thereupon Engineer will give written notice to Department and Contractor that the work is acceptable subject to the provisions of paragraph 13.13. Otherwise, Engineer will return the application to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application. After presentation to Department of the application and accompanying documentation, in appropriate form and substance, and with Engineer’s recommendation and certification of substantial conformance with the Contract Documents, final payment will be paid by Department to Contractor in accordance with New York
State Law. If Department believes deficiencies exist, it will so notify Engineer and Contractor in writing.

13.12 If, through no fault of Contractor, final completion of the Work is significantly delayed and if Engineer so confirms, Department shall, upon receipt of Contractor’s final Application for Payment and recommendation of Engineer, and without terminating the Agreement, make payment of the balance due for that portion of the Work fully completed and accepted.

**Waiver of Claims:**

13.13 The making and acceptance of final payment will constitute:

13.13.1 A waiver of all claims by Department against Contractor, except claims arising from unsettled Liens, from Defective Work appearing after final inspection pursuant to paragraph 13.11 or from failure to comply with the Contract Documents or the terms of any special guarantees specified therein; however, it will not constitute a waiver by Department of any claims or rights with respect to Contractor’s continuing obligations under the Contract Documents; and

13.13.2 A waiver of all claims by Contractor against Department other than those previously made in writing and still unsettled.

**ARTICLE 14 - Suspension of Work and Termination**

**Department May Suspend Work:**

14.1 Department may for its convenience, order Contractor in writing at any time to suspend the Work or any portion thereof for such a period of time as Department may determine to be appropriate. A suspension of Work order will fix the date on which the Work, or portion thereof, will be resumed. Contractor shall resume the Work, or portion thereof, on the date so fixed.

14.1.1 If the performance of the Work or portion thereof is suspended for a period of time which exceeds the Total Float available in the approved Progress Schedule for the portion or portions controlling the Work affected by a suspension of Work order pursuant to paragraph 14.1, or by an act of Department or Engineer in the administration of the Contract, or by Department’s or Engineer’s failure to act within the applicable latest dates substantiated in the approved Progress Schedule, Contractor will be allowed an increase in Contract Price or an extension in Contract Time, or both, necessarily caused by such suspension which extends the applicable latest dates in the approved Progress Schedule. However, no adjustment will be made under this paragraph of the General Conditions for any suspension to the extent: 1) that performance would have been so suspended by any other cause, including the fault and negligence of Contractor, or 2) for which an adjustment is provided, limited as to extent, or excluded under any other provision of the Contract Documents.

14.1.2 Contractor shall deliver to Engineer a written Proposed Change Order including at a minimum, justification for the request within seven (7) days or earlier if so required elsewhere in the Contract Documents, of the act or failure to act which Contractor believes gives rise to an adjustment in Contract Price or Contract Time pursuant to paragraph 14.1.1. Failure by Contractor to comply with the time requirements for
delivery of written Proposed Change Orders will be considered to be a waiver by Contractor of any request for adjustment or claim for an increase in Contract Price or Contract Time for the period of time during which the Proposed Change Order has not been submitted.

14.1.3 Contractor’s proposal with all supporting data shall be delivered within 15 days of such notice or within twenty-two (22) days of such occurrence, whichever is later, unless Department allows an additional period of time to obtain more accurate data. Contractor shall prove that additional costs and delays were necessarily incurred which meet the criteria set forth in Articles 9, 10 and 11 of the General Conditions, despite Contractor’s reasonable, prudent, and diligent efforts to prevent such costs or delays.

14.2 In addition to the provisions of Appendix B, if Department stops Work in accordance with Article 12.11 of the General Conditions or suspends Contractor’s services in accordance with Article 12.11, or suspends the work or any portion thereof because of Contractor’s failure to prosecute the work and to protect persons and property, Contractor shall not be entitled to an extension of Contract Time or an increase in Contract Price.

**Department May Terminate:**

14.3 Department may serve written notice upon Contractor and its surety that it intends to terminate the Contract for cause upon the date specified which shall not be less than seven (7) days from the date of the notice. Such notice shall contain the reasons for the intended termination which shall be effective on the date specified unless Contractor shall cease the violation(s) or make arrangements which are satisfactory to the Department to address the violation(s). Upon termination, the Department may exclude Contractor from the site and take possession of the Work and of all Contractor’s tools, appliances, construction equipment and machinery at the site and use the same to the full extent they could be used by Contractor without liability to Contractor for trespass or conversion, incorporate in the work all materials and equipment stored at the site or for which Department has paid Contractor but which are stored elsewhere, and finish the Work as Department may deem expedient. In such case Contractor shall not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the Contract Price exceeds the direct, indirect and consequential costs of completing the Work including but not limited to fees and charges of engineers, architects, attorneys and other professionals and court costs, such excess will be paid to Contractor. If such costs exceed such unpaid balance, Contractor shall pay the difference to Department. Such costs incurred by Department will be approved as to reasonableness by Engineer and incorporated in a Change Order or Proposed Change Order.

Department may terminate for cause upon the occurrence of any one or more of the following events:

14.3.1 If Contractor commences a voluntary case under any chapter of the Bankruptcy Code, as now or hereafter in effect, or if Contractor takes any equivalent or similar action by filing a petition or otherwise under any other federal or state law in effect at such time relating to the bankruptcy or insolvency;

14.3.2 If a petition is filed against Contractor under any chapter of the Bankruptcy Code as now or hereafter in effect at the time of filing, or if a petition is filed seeking any such equivalent or similar relief against Contractor under any other federal or state law in effect at the time relating to bankruptcy or insolvency;
14.3.3 If Contractor makes a general assignment for the benefit of creditors;

14.3.4 If a trustee, receiver, custodian or agent of Contractor is appointed under applicable law or under contract, whose appointment or authority to take charge of property of Contractor is for the purpose of enforcing a lien against such property or for the purpose of general administration of such property for the benefit of Contractor’s creditors;

14.3.5 If Contractor admits in writing an inability to pay its debts generally as they become due;

14.3.6 If Contractor fails to perform the Work in accordance with the Contract Documents, including, but not limited to, failure to supply sufficient skilled workers, or suitable materials or equipment, or failure to adhere to the progress schedule established under paragraph 1.6 as revised from time to time or failure to submit an updated schedule as required by paragraph 5.6;

14.3.7 If Contractor disregards Laws or Regulations of any public body having jurisdiction;

14.3.8 If Contractor disregards the authority of Engineer;

14.3.9 If Contractor filed certification in accordance with New York State Finance Law §139-k which was intentionally false or intentionally incomplete; or

14.4 Where Contractor’s services have been so terminated by Department, the termination shall not affect any rights or remedies of Department against Contractor then existing or which may thereafter accrue. Any retention or payment or moneys due Contractor by Department will not release Contractor from liability.

14.5 The Department may without cause and without prejudice to any other right or remedy terminate the Contract for convenience upon seven (7) days written notice to Contractor, it’s surety and Engineer, and elect to abandon the Work and terminate the Agreement. In such case, Contractor shall be paid for all Work accepted by Department.

**Contractor May Stop Work or Terminate:**

14.6 If, through no act or fault of Contractor, Engineer fails to act on any Application for Payment within thirty (30) days after it is submitted, or Department fails for one hundred and twenty (120) days to pay Contractor any sum finally determined to be due by Department, then Contractor may, upon seven (7) days' written notice to Department and Engineer, terminate the Agreement and recover from Department payment for all Work accepted by Department. In lieu of terminating the Agreement, if Engineer has failed to act on an Application for Payment or Department has failed to make any payment as aforesaid, Contractor may upon seven (7) days written notice to Department and Engineer stop the Work until payment of all amounts then due. The provisions of this paragraph shall not relieve Contractor of the obligations under paragraph 5.31 to carry on the Work in accordance with the progress schedule and without delay during disputes and disagreements with Department.
ARTICLE 15 - Miscellaneous

Notice and Service:

15.1 The term "notice" in this Article shall refer to any notice required under the Contract for claims (delay, change order, extra work, liquidated damages, etc.) or initial contract disputes against the Department. When notice is required to be sent by the Contractor to the Department, it must be in writing and provided within 15 calendar days of the date that the Contractor knew or should have known of the facts that form the basis of the claim or dispute. Notice should be as factually complete as possible, and contractors should have a continuing duty to promptly provide the agency with information about conditions of the claim. If a claim or dispute involves a matter of life, health or safety, notice must be made immediately to the Department.

15.1.1 The Contractor shall give the Department immediate notice in writing of the initiation of any legal action or suit which relates in any way to a subcontract with a subcontractor or which may affect the performance of the Contractor’s duties under the contract.

15.1.2 The written notice must be addressed and delivered to the Project Manager at the address provided in Article 2 of Section IV.

15.1.3 Written notice may be provided by the Contractor to the Department in one of the three methods to achieve actual notice: (i) first class mail and email; (ii) certified mail and first-class delivery; or (iii) overnight mail and first-class delivery. The written notice shall contain a sufficient description of the claim or dispute pursuant to the provisions of the Contract.

15.1.4 Upon receipt of the written notice from the Contractor, the Department shall provide a written acknowledgment of receipt of notice. The Department’s failure to provide written acknowledgment shall not be deemed a breach of contract or alter the Contractor’s obligation to provide timely notice.

15.1.5 Any notice to or demand upon Contractor shall be deemed served if delivered to Contractor’s representative at the site or if delivered to the individual proprietor if Contractor is an individual, to a partner if Contractor is a partnership or to an officer of the corporation if Contractor is a corporation, at the office of Contractor specified in the Contract Documents, or if deposited in the United States mail in a sealed, postage prepaid envelope, addressed to the principal office of Contractor listed in the Contract Documents, or emailed to the electronic address provided in Section V- Bid Forms and Acknowledgement and followed by written notice.

15.1.6 Any written notice or other communication to Contractor’s Surety or Sureties shall be delivered or mailed to the home office of the Surety or Sureties, or to the agent or agents who executed the Bonds on behalf of the Surety or Sureties.

15.1.7 Any such notice or demand shall be deemed to have been given or made as of the time of actual delivery, or, in the case of mailing, at the time of actual receipt thereof.
**Computation of Time:**

15.2 When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last calendar day of such period. If the last calendar day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the State of New York, such day will be omitted from the computation. This does not apply to contract completion time as set forth in Article 6 of the Agreement.

**General:**

15.3 Should Department or Contractor suffer injury or damage to person or property because of an act or omission to act of the other party, its employees or agents or others for whose acts the other party is legally liable, a Claim may be made therefore, in writing to the other party within a reasonable time of the first observance of such injury or damage. The provisions of this paragraph shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitations or repose.

15.4 The duties and obligations imposed by these General Conditions and the rights and remedies available to the parties hereunder, including but not limited to the warranties, guarantees and obligations imposed upon Contractor by Contract Documents and all of the rights and remedies available to Department thereunder, are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by New York State Laws, by special warranty or guarantee or by other provisions of the Contract Documents. The provisions of this paragraph shall be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right and remedy. All representations, warranties and guarantees made in the Contract Documents shall survive final payment and termination or completion of the Agreement.

15.5 The obligation of Contractor to maintain the Work, or any part thereof, until the completion of the Correction Period shall survive final payment and termination or completion of the Agreement.

**No Waiver of Legal Rights:**

15.6.1 Inspection by Engineer or by any of its duly authorized representatives, any measurement or report by Engineer, any order by Department for the payment of money, any payment for or acceptance or possession of any Work or any extension in Contract Time or any possession taken by Department shall not operate as a waiver of any provision of the Contract Documents, or any power therein preserved to Department, or of any right to damages therein provided. Any Waiver of any breach of this Contract shall not be held to be a waiver of any other or subsequent breach.

15.6.2 Department reserves the right to correct any error that may be discovered in any estimate that may have been paid, and to adjust the same to meet the requirements of the Contract Documents. Department further reserves the right, should proof of Defective Work on the part of Contractor be discovered after the final payment has been made, to claim, and recover by process of law, such sums as may be sufficient to correct the error, or make good the defects in the Work.
15.6.3 Any waiver of any provision of the Contract Documents shall be specific, shall apply only to the particular item or matter concerned and shall not apply to other similar or dissimilar items or matters.

Affidavit and Release of Lien:

15.7.1 When the Work has been completed, Contractor shall execute a final release of Lien and an Affidavit declaring that all bills have been paid in full, and that the requirements of the New York State Labor Law have been complied with.

15.7.2 These documents will be furnished to Department on the forms provided by Department.

15.7.3 Contractor shall be responsible for obtaining and submitting these forms to Department for all subcontractors involved in the Work.

Recovery Rights Subsequent to Final Payment:

15.8 Department reserves the right, should an error be discovered in an Application for Payment or should proof of Defective Work or materials used by or on the part of Contractor be discovered after the final payment has been made, to claim and recover from Contractor or his Surety, or both, by process of law, such sums as may be sufficient to correct the error or make good the defects in the Work and materials.

General Guarantee:

15.9 Neither the final acceptance, nor final payment by Department, nor any provision of the Contract Documents, nor partial or entire use of the Work by Department, shall constitute an acceptance of Work not done in accordance with the Contract Documents or relieve Contractor of liability in respect to any express warranties or responsibility for faulty materials or workmanship. Contractor guarantees the remedy of all Defective Work and payment for all damage to other Work, persons or property resulting therefrom which shall occur within one (1) year from the date of final acceptance unless a longer period is required by Contract Documents, by Law, or by standard practice. Department will give notice of observed Defective Work with reasonable promptness. Contractor shall ensure that its Surety shall be bound with and for Contractor in the faithful observance of this General Guarantee.

Audit; Access to Records:

15.10.1 In addition to the rights of access set forth in Appendix A, if Contractor has submitted Cost and Pricing Data in connection with the pricing of any Change Order, Proposed Change Order or Claim related to this Contract, Department and Engineer or any of their duly authorized representatives shall have the right to examine and audit all books, ledgers, records, and documents pertinent to all Cost and Pricing data available and relied upon by Contractor including but not limited to that used by Contractor in the determination of its Bid for the Work, in order to evaluate the accuracy, completeness, and currency of the Cost or Pricing data.

15.10.2 Contractor shall make available at Contractor’s office at all reasonable times the materials described in paragraph 15.10.1 above, for examination, audit, or reproduction, until six (6) years after final payment under this Contract.
15.10.2.1 If this Contract is completely or partially terminated, the records relating to the Work terminated shall be made available for six (6) years after any resulting final termination settlement.

15.10.2.2 Records pertaining to appeals under Article 8 of Appendix B of the Agreement, to litigation or the settlement of claims arising under or relating to the performance of this Contract shall be made available until disposition of such appeals, litigation, or claims.

15.10.3 A provision stating that all the requirements of this Article of the General Conditions are applicable to Subcontracts under this Contract exceeding $50,000 in value shall be inserted by Contractor in all such subcontracts.

**Price Reduction for Defective Cost or Pricing Data:**

15.11.1 This provision shall become operative only for any Change Order, or Proposed Change Order or claim settlement under this Contract involving aggregate increases and/or decreases in costs, plus applicable profits, of more than $10,000; except that this provision shall not apply to any amendment to the Contract for which the price of the Work involved in the amendment is:

15.11.1.1 Based on adequate price competition;

15.11.1.2 Based on established catalog or market prices of commercial items sold in substantial quantities to the general public, or

15.11.1.3 Set by New York State law.

15.11.2 If any price, including profit, negotiated in connection with any Change Order, Proposed Change Order or claim settlement under this provision, was increased because: 1) Contractor or a Subcontractor, Supplier, other person or organization furnished Cost and Pricing Data that were not complete, accurate, and current as certified in its Certificate of Current Cost or Pricing Data; 2) a designated or prospective Subcontractor, Supplier, other person or organization furnished Contractor Cost and Pricing Data that were not complete, accurate, and current as certified in the Contractor’s Certificate of Current Cost and Pricing Data; or 3) any of these parties furnished data of any description that were not accurate, the price shall be changed accordingly and the Contract shall be adjusted to reflect the change. This right to a change in Contract Price is limited to that resulting from defects in data relating to amendments to the Contract for which this provision becomes operative under paragraph 15.11.1 above.

15.11.3 Any decrease in Contract Price under paragraph 15.11.2 above due to defective data from a designated or prospective Subcontractor, Supplier, other person or organization that was not subsequently awarded the Subcontract or purchase order shall be limited to the amount, plus applicable overhead and profit markup, by which 1) the actual Subcontract or purchase order or 2) the actual cost to Contractor, if there was no Subcontract or purchase order, was less than the prospective Subcontract or purchase order, cost estimate submitted by Contractor; provided, that the actual Subcontract or purchase order price was not itself affected by defective cost or Pricing data.
15.11.4 Before awarding any Subcontract or purchase order which exceeds or can be reasonably expected to exceed $150,000 when entered into, or pricing any Change Order or Proposed Change Order or claim settlement involving a pricing adjustment expected to exceed $10,000, Contractor shall require the Subcontractor, Supplier, other person or organization to submit Cost or Pricing data (actually or by specific identification in writing), unless the price is:

15.11.4.1 Based on adequate price competition;

15.11.4.2 Based on established catalog or market prices of commercial items sold in substantial quantities to the general public; or

15.11.4.3 Set by New York State law.

15.11.5 Contractor shall require such Subcontractor, Supplier, other person or organization to certify in the form prescribed in the Contract Documents, that to best of its knowledge and belief, the data submitted under paragraph 15.11.4 is accurate, complete, and current as of the date of agreement on the negotiated price of the Subcontract, purchase order, Change Order, Proposed Change Order, or claim settlement affecting the Subcontract.

15.11.6 Contractor shall make the provisions of this Article applicable to all Subcontracts or purchase orders that exceed or can be reasonably expected to exceed $150,000.

No Waiver:

15.12.1 The rights and remedies set forth in the Contract Documents are not exclusive and are in addition to any other rights and remedies provided by law or equity. The duties and obligations imposed by the Contract Documents and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by New York State law.

15.12.2 No act or omission by Department or Contractor shall constitute a waiver of any right or duty afforded any of them under the Contract Documents, nor shall any such act or omission constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing.

Comparable or Equivalent Terms:

15.13.1 Contractor warrants, represents and guarantees that all of the prices, terms, warranties and benefits granted to Department under the Contract are comparable to or better than the equivalent terms, prices, warranties and benefits offered to any other existing customer for similar Work.

15.13.2 In addition to the other remedies available, Department may demand repayment for any excess payment, plus interest thereon, for failure of Contractor to comply with paragraph 15.13.1.
Unlawful Provisions Deemed Stricken:

15.14.1 If the Contract Documents contain any unlawful provisions, such unlawful provisions shall be of no effect. Any provision determined to be unlawful by a court of competent jurisdiction, shall be deemed stricken from the Contract Documents without affecting the validity of the remaining provisions of the Contract Documents.

All Legal Provisions Included:

15.15.1 All provisions of Law required to be included in the Contract Documents shall be and are inserted herein. If through mistake, neglect, oversight or otherwise, any such provision has not been included or included in improper form, upon the application of either party, the Contract Documents shall be amended in writing at no increase in Contract Price nor extension in Contract Time, so as to comply with the Law.

No Estoppel:

15.16 Department or any officer, employee, servant or agent thereof, shall not be estopped, bound or precluded by any determination, return, decision, approval, order, letter, payment or certificate made or given by Engineer or any other officer, employee, servant or agent of Department, at any time, either before or after final completion and acceptance of the Work and payment therefor:

15.16.1 From showing the true and correct amount, classification, quality, and character of the Work completed and materials furnished by Contractor or any other person under the Contract, or from showing at any time that any determination, return, decision, approval, order, letter, payment, or certificate is untrue and incorrect, or improperly made in any particular, or that the Work or the materials or any part thereof, do not in fact conform to the Contract Documents; or,

15.16.2 From demanding the recovery of any overpayments made to Contractor, or such damages as Department may sustain by reason of failure to perform each and every term, provision or condition of the Contract in accordance with its terms.

Prohibited Interests:

15.17 No official of Department who is authorized in such capacity on behalf of Department to negotiate, make, accept or approve or to take part in the negotiating, making or approving any architectural, engineering, inspection, construction or material supply contract or any Subcontractor in connection with the Work or the Project of which the Work is a part, shall be knowingly permitted by Contractor to become directly or indirectly interested personally in this Contract or in any part thereof. No officer, employee, architect, attorney, engineer or project representative of or for Department who is authorized in such capacity and in behalf of Department to exercise any executive, supervisory or other similar function in connection with the Work or the Project of which the Work is a part shall be knowingly permitted by Contractor to become directly interested personally in this Contract or in any part thereof.

No Third Party Beneficiary:

15.18 Contractor acknowledges and agrees that it is not a third party beneficiary to any other agreement between the Department and any third party and/or any work product prepared or work performed
for the Department by any third party, including but not limited to the contract between and/or work or work product performed by the Engineer; that nothing in the bid documents or the contract document shall be construed so as to give the contractor any legal or equitable claim, right or remedy against any other party with whom the Department has contracted, including but not limited to the Engineer; that nothing in any separate agreement between Department and any third party, including but not limited to the Engineer shall be construed to give the contractor any legal or equitable claim, right or remedy against such third party; rather such agreements are acknowledged and agreed to be intended to be for the sole exclusive benefit of the parties thereto. Contractor further acknowledges and agrees that its sole rights and remedies in connection with its bidding and performance of the work to be performed by it under the bid documents and contract documents are limited to such rights and remedies as are provided under the bid documents and contract documents. Further, contractor acknowledges and agrees that no claim against any third party, including but not limited to the Engineer, which is in separate contractual privity with the Department, shall arise out of such contractor's or the Engineer's performance of services for the Department pursuant to such separate contract.

Nothing herein shall release or waive any direct claim which the Department may have against any such separate contractor, including the Engineer, pursuant to the terms of the Department's contract with such third party.

Should any direct claim be brought by contractor against any third party in separate direct contractual relationship with the Department, contractor agrees to reimburse to the Department and to such separate contractor, including Engineer, their reasonable and necessary costs, including legal fees, incurred in the defense of such claim or claims.
SECTION IX

Supplementary Conditions

These Supplementary Conditions (SC) amend or supplement the provisions, as indicated below, of the Contract Documents. All provisions which are not so amended or supplemented remain in full force and effect.

The terms used in these Supplementary Conditions will have the meanings indicated in Section II – Terms and Definitions. Additional terms, if any, used in these Supplementary Conditions have the meanings indicated below, which are applicable to both the singular and plural thereof.

Access Agreements

Access agreements are in place for construction activities on existing properties and rights-of-way within the proposed work area with the following entities: the City of Lockport, the Town of Lockport, Edward Litwinski, Douglas Snow, Robert Matheis, WCF Enterprises, LLC, Patricia George, Waylon Edmister, New York State Electric and Gas, and the Somerset Railroad Corporation. See Attachment 1 to this Section for agreements in place.

Permits

The following permits/approvals have been obtained for the work described within these Contract Documents, and must be followed during execution of the Work and are included as attachments in this Section:

- Nationwide Permit 38 – Cleanup of Hazardous and Toxic Waste Authorization (Attachment 2), Nationwide Permit 38 – Cleanup of Hazardous and Toxic Waste Re-Authorization (due to re-issuance of Nationwide Permits March 2022, Attachment 2A) and Nationwide Permit 38 – Cleanup of Hazardous and Toxic Waste Terms and Conditions (Attachment 3). Terms and conditions applicable to this permit, as well as special considerations outlined in the pre-construction authorization must be followed during execution of the Work. Pre-construction authorization was received 4 January 2021, and re-authorization under the re-issued Nationwide Permit 38 was received 1 March 2022.

- Section 401 Water Quality Certification (Attachment 4) – water quality certification DEC No. 9-2999-00037/00001 for the Old Upper Mountain Road Site; this includes certification for the work proposed within the Old Upper Mountain Road Environmental Remediation site adjacent to Gulf Creek.

- U.S. Fish and Wildlife Service Threatened and Endangered Species List (Attachment 5)

- New York State Office of Parks, Recreation and Historic Preservation letter (Attachment 6)

- New York State Pollutant Discharge Elimination System Equivalency Permit for Stormwater Discharges from Construction Activity (Attachment 7) – the Contractor shall meet the requirements of the SPDES Equivalency permit.

- NYSDEC Change of Use Form – Lockport City Landfill (Attachment 8)
The following permits/approvals are the responsibility of the selected Contractor, and will need to be obtained prior to issuance of a Notice to Proceed:

- City of Lockport Contractor’s License – the selected Contractor will be required to coordinate with the City of Lockport and meet the intent and requirements of this license; the license fee will not apply. The license is valid from January through December of the year issued. Proof of insurance shall be a Certificate of insurance in the amounts listed in the City of Lockport General Conditions, Paragraph 31. Form C-105.2 must be submitted for proof of Worker’s Compensation. A copy of the license application is included in this Section for reference (Attachment 9).

- Town of Lockport Construction Permit – the selected Contractor will be required to coordinate with the Town of Lockport and meet the intent and requirements of this permit. A copy of the license application is included in this Section for reference (Attachment 10).

- Town of Lockport Road Work Permit – the selected Contractor will be required to coordinate with the Town of Lockport and meet the intent and requirements of this permit. A copy of the license application is included in this Section for reference (Attachment 11).
Section IX
Attachment List

Attachment 1 – List of Property Owners and Access Agreements
Attachment 2 – Nationwide Permit 38 – Cleanup of Hazardous and Toxic Waste Authorization
Attachment 2A – Nationwide Permit 38 – Cleanup of Hazardous and Toxic Waste Re-Authorization (due to re-issuance of Nationwide Permits March 2022)
Attachment 3 – Nationwide Permit 38 – Cleanup of Hazardous and Toxic Waste Terms and Conditions
Attachment 4 – Section 401 Water Quality Certification (Site Specific)
Attachment 5 – USFWS Threatened and Endangered Species List
Attachment 6 – NYS Office of Parks, Recreation and Historic Preservation Letter
Attachment 7 – New York State Pollutant Discharge Elimination System Equivalency Permit for Stormwater Discharges from Construction Activity
Attachment 8 – NYSDEC Change of Use Form – Lockport City Landfill
Attachment 9 – City of Lockport Contractor’s License Application
Attachment 10 – Town of Lockport Construction Permit Application
Attachment 11 – Town of Lockport Road Work Permit
## Attachment 1
### List of Property Owners

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<thead>
<tr>
<th>Property Owner</th>
<th>Tax Parcel ID #</th>
<th>Street Address</th>
<th>Town</th>
<th>State</th>
<th>Zip</th>
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March 13, 2020

Jamie Elmer
City of Lockport Municipal Building
1 Locks Plaza
Lockport, NY 14094

RE: Old Upper Mountain Road Site (Site Number 932112)
Lockport, NY 14094

Target Properties:

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<th>Tax ID</th>
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<tr>
<td>456 South Niagara Street</td>
<td>108.15-1-35</td>
</tr>
</tbody>
</table>

Dear Mr. Elmer:

The New York State Department of Environmental Conservation (DEC) is investigating hazardous waste contamination on or near your premises, outlined above. Pursuant to Environmental Conservation Law (ECL) Article 27 § 1309, (3)-(4) and ECL Article 27 § 1313(8), DEC and its contractors have the authority to enter onto property for these purposes.

DEC, acting through its officers, employees, agents, and contractors, requires access to City of Lockport real property, above specified, for the purposes of investigation, remediation, operation, maintenance, and monitoring activities associated with the Old Upper Mountain Road Site. This work requires sampling of multiple media using various methods.

DEC prefers to act in cooperation with the City of Lockport and is available to answer any questions regarding this work now and in the future. DEC will provide advance notice of scheduled work, will accommodate your schedule to the extent possible, and will make every effort to minimize any adverse impact of its entry on and occupancy of City of Lockport property. Please sign the attached form acknowledging and consenting to DEC’s right of entry onto City of Lockport property.
DEC would prefer to act in cooperation with the City of Lockport. Therefore, it is requested that you sign the attached form acknowledging and consenting to DEC’s right of entry onto City of Lockport property.

I am available to answer any questions you may have regarding this work. Please feel free to contact me with any questions you may have on this matter at (518) 402-5987 or Brianna.Scharf@dec.ny.gov. If you or your legal counsel have any questions, please contact the project attorney Leia Schmidt at (518) 402-9185 or Leia.Schmidt@dec.ny.gov.

Nothing contained herein constitutes a waiver by the Department of any rights under applicable state and federal law nor does it constitute a release of any party from obligations under those same laws.

Sincerely,

[Signature]

Brianna Scharf
Project Manager
Remedial Section C, Remedial Bureau E
Division of Environmental Remediation

cc:
S. Saucier, DEC
M. Cruden, DEC
S. Radon, DEC
S. Selmer, DOH
C. Bethoney, DOH

Enclosure:
Access Agreement
New York State Department of Environmental Conservation

Property Owner Acknowledgment/Consent Form

I __________________________, hereby acknowledge and consent to the Department's Right of Entry for purposes of investigation, remediation, operation, maintenance and monitoring activities associated with the Old Upper Mountain Road Site, Site No. 932112, onto the premises described below:

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<th>Tax ID</th>
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Signature ________________________

Date ___________________________

Daytime Phone Number ________________________

- Keep This Copy for Your Records

Nothing contained herein constitutes a waiver by the Department of any rights under applicable state and federal law nor does it constitute a release of any party from obligations under those same laws.
New York State of Department Environmental Conservation

Property Owner Acknowledgment/Consent Form

I ____________, hereby acknowledge and consent to
the Department's Right of Entry for purposes of investigation, remediation, operation, maintenance and monitoring activities associated with the Old Upper Mountain Road Site, Site No. 932112, onto the premises described below:

<table>
<thead>
<tr>
<th>Property Address</th>
<th>Tax ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Railroad Street</td>
<td>108.15-1-36</td>
</tr>
<tr>
<td>4 Railroad Street</td>
<td>108.15-1-1</td>
</tr>
<tr>
<td>704 Niagara Street</td>
<td>108.11-2-1</td>
</tr>
<tr>
<td>705 Niagara Street</td>
<td>108.11-1-10</td>
</tr>
<tr>
<td>4899 Sunset Drive</td>
<td>108.00-1-14</td>
</tr>
<tr>
<td>5725 Old Upper Mountain Road</td>
<td>108.00-1-19</td>
</tr>
<tr>
<td>185 Oakhurst Street</td>
<td>108.15-1-42</td>
</tr>
<tr>
<td>455 South Niagara Street</td>
<td>108.15-1-37</td>
</tr>
<tr>
<td>456 South Niagara Street</td>
<td>108.15-1-35</td>
</tr>
</tbody>
</table>

Signature ____________

Date __________________

Daytime Phone Number 716-434-6060

• Return This Copy to the NYSDEC in the Postage-Paid Envelope Provided

Nothing contained herein constitutes a waiver by the Department of any rights under applicable state and federal law nor does it constitute a release of any party from obligations under those same laws.
May 5, 2020

Jamie Elmer
City of Lockport Municipal Building
1 Locks Plaza
Lockport, NY 14094

RE: Old Upper Mountain Road Site (Site Number 932112)
Lockport, NY 14094

Target Properties (See Figure 1):
- Railroad Street (paper street/right-of-way that runs from Lockport DPW Building at 455 South Niagara Street north to Niagara Street)
- Southwestern terminus of South Niagara Street adjacent to Lockport DPW Building
- Otto Park Place
- Southern terminus of Old Upper Mountain Road

Dear Mr. Elmer:

The New York State Department of Environmental Conservation (DEC) is investigating hazardous waste contamination on or near your premises, outlined above. Pursuant to Environmental Conservation Law (ECL) Article 27 § 1309, (3)-(4) and ECL Article 27 § 1313(8), DEC and its contractors have the authority to enter onto property for these purposes.

DEC, acting through its officers, employees, agents, and contractors, requires access to City of Lockport real property, above specified, for the purposes of relocating the Gulf Interceptor, a sewer line which is currently installed within Gulf Creek, part of the Old Upper Mountain Road Site. Activities to be conducted at Railroad Street include surveying, geotechnical investigation, clearing (as necessary), and installation of a new sewer line. After completion of the sewer installation, the City of Lockport will be responsible for the operation and maintenance of the new infrastructure from that point forward.

DEC prefers to act in cooperation with the City of Lockport and is available to answer any questions regarding this work now and in the future. DEC will provide advance notice of scheduled work, will accommodate your schedule to the extent possible, and will make every effort to minimize any adverse impact of its entry on and occupancy of City of Lockport property.

Please sign the attached form acknowledging and consenting to DEC’s right of entry onto City of Lockport property.
I am available to answer any questions you may have regarding this work. Please feel free to contact me with any questions you may have on this matter at (518) 402-5987 or Brianna.Scharf@dec.ny.gov. If you or your legal counsel have any questions, please contact the project attorney Leia Schmidt at (518) 402-9185 or Leia.Schmidt@dec.ny.gov.

Nothing contained herein constitutes a waiver by the Department of any rights under applicable state and federal law nor does it constitute a release of any party from obligations under those same laws.

Sincerely,

[Signature]

Brianna Scharf
Project Manager
Remedial Section C, Remedial Bureau E
Division of Environmental Remediation

cc:
S. Saucier, DEC
M. Cruden, DEC
S. Radon, DEC
S. Selmer, DOH
C. Bethoney, DOH

Enclosure:
Access Agreement
New York State of Department Environmental Conservation

Property Owner Acknowledgment/Consent Form

I ____________________________, hereby acknowledge and consent to
Print Name
the Department's Right of Entry for purposes of surveying, geotechnical
investigation, clearing (as necessary), and installation of a new sewer line
associated with the relocation of the Gulf Interceptor Sewer at the Old Upper Mountain
Road Site, Site No. 932112, onto the premises described below:

Locations of Interest (Figure 1):
- Railroad Street (paper street/right-of-way that runs from Lockport DPW Building
  at 455 South Niagara Street north to Niagara Street)
- Southwestern terminus of South Niagara Street adjacent to Lockport DPW
  Building
- Otto Park Place
- Southeastern portion of Old Upper Mountain Road
  Lockport, NY 14094

Signature ______________________

Date 5/5/2020

Daytime Phone Number (716) 998-0996

- Return This Copy to the NYSDEC in the Postage-Paid Envelope Provided

Nothing contained herein constitutes a waiver by the Department of any rights under
applicable state and federal law nor does it constitute a release of any party from
obligations under those same laws.
Figure 1
Portions of City of Lockport Owned Streets Potentially Subject to Geotechnical Investigation
Old Upper Mountain Road (952112)
Lockport, New York

Projection: NAD 1963 State Plane New York West FIPS 3103 Feet

1 inch = 0.105 miles
Robert Klavoon  
Town of Lockport Engineer  
Lockport Town Hall  
6560 Dysinger Road  
Lockport, NY 14904  

Subject: Old Upper Mountain Road Site (Site Number 932112)  

Target Properties:  
- Otto Park Place Right-of-way (Figure 1)  
- Old Upper Mountain Road Right-of-way (Figure 2)  

Dear Mr. Klavoon:  

The New York State Department of Environmental Conservation (DEC) is investigating hazardous waste contamination on or near your premises. This work is related to the Old Upper Mountain Road site (Site No. 932112) located in part within both the City and Town of Lockport limits, Niagara County, New York. Our records, as well as conversations had to date have identified the Town of Lockport as owners of the road right-of-way for a portion of Old Upper Mountain Road and Otto Park Place.  

The Inactive Hazardous Waste Disposal Site Remedial Program (State Superfund Program [SSF]), Environmental Conservation Law (ECL) Article 27 § 1309, (3)-(4) and § 1313(8), authorizes DEC or its authorized agents to enter upon any site, areas near such site, or area on which it has reason to believe that contaminants were disposed or discharged for purposes of inspection, sampling and testing, implementing a remedial program, long-term operation and maintenance, and temporary occupancy. This letter is to notify you of DEC’s intent to exercise its right to access your property, specified above, pursuant to the cited statutory authority. This is not a notice that DEC intends to acquire the above specified property nor is it an offer to acquire it.  

As per the Record of Decision for the Old Upper Mountain Road site (Site), a remedial design program is necessary to provide for the construction, operation, maintenance, and monitoring of the remedial program, including the re-routing of a sewer line that currently lies within Gulf Creek. The DEC is finalizing a design to relocate of the existing Gulf Interceptor sewer line from within Gulf Creek and install approximately 5,000 feet of new infrastructure along a selected alignment. The selected alignment of the new sewer
infrastructure starts from the existing line at the southeast end of Old Upper Mountain Road, crosses the CSX Transportation Railroad tracks to Otto Park Place, proceeds northeast along Otto Park Place (Figure 1), and then north toward the City of Lockport Highways and Parks Garage before eventually connecting with the existing sewer south of Niagara Street. Realignment of the sewer is necessary to complete the remediation work at the Site due to the degraded nature of the system and the potential concerns with removing contaminated material around a live public utility.

DEC, acting through its officers, employees, agents and contractors and subcontractors are hereby designated, as authorized pursuant to the ECL to enter this inactive hazardous waste disposal site, and areas near such site, to implement the required investigation and remedy. It has been determined that access and construction-related work is required on the Town of Lockport owned rights-of-way referenced above in order to install the sewer line being relocated out of Gulf Creek and during the remediation efforts for site access and staging of equipment. Those designated persons must comply with the requirements set forth in the ECL. DEC has retained EA Engineering, P.C., to perform the required investigation and remedial design, and will retain a remedial contractor(s) to implement the required remedy pursuant to the State’s contracting requirements. You will be notified of the identity of the remedial contractor(s). DEC’s contractor(s) will be entering your real property at any time on or after February, 2021 for the purpose of:

- **Remedial Action (RA)** – The purpose of the RA is to construct the selected remedy. At the Old Upper Mountain Road site and on the Town of Lockport owned rights-of-way referenced herein, this includes but is not limited to site preparation, staging of equipment, and installation and commissioning of a new sewer line. Following sewer placement, portions of the road that were disturbed will replaced in kind (Figures 1 and 2). As part of the remedial action that will be completed at the Site after relocation and commissioning of the new sewer line, an access road will be constructed off Old Upper Mountain Road to provide construction access to the Site (Figure 3).

- **Site Management (SM)** – Management of the sewer line will be the responsibility of the City of Lockport following installation and testing. Coordination regarding use of the sewer line and post-installation conditions will need to be communicated with the City of Lockport, and will be done in accordance with a permanent easement to be arranged by City of Lockport representatives between the Town of Lockport and the City of Lockport.

DEC will make every effort to cooperate with you throughout the implementation of the RA. Accordingly, DEC will pay the cost of the work to be conducted on your property.

Nothing contained herein constitutes a waiver by DEC or the State of New York of any rights held pursuant to any applicable state and/or federal law or a release for any party from any obligations held under those same laws.

Any questions or concerns about DEC’s operations on your property should be directed to Brianna Scharf, Project Manager, at (518) 402-5987 or Brianna.scharf@dec.ny.gov. Any questions regarding DEC’s legal authority should be directed to Leia Schmidt of the Office
of General Counsel at leia.schmidt@dec.ny.gov or (518) 402-9195.

Sincerely,

______________________________
Michael J. Ryan, P.E.
Director
Division of Environmental Remediation

ec:  G. Heitzman, DER
     M. Crudin/S. Saucier/B. Scharf, DER
     L. Schmidt, OGC
     S. Radon, Region 9
     M. Smith, EA
OLD UPPER MOUNTAIN ROAD SITE
ASPHALT TO BE REMOVED/REPLACED
LOOKPORT, NEW YORK

FIGURE 1
CONSTRUCTION NOTES

1. CLEAR AND GRUB ACCESS ROAD AREA. STOCKPILE VEGETATION ON SITE IN A LOCATION APPROVED BY THE DEPARTMENT.

2. RELOCATE CONCRETE AND ROCK DEBRIS OUTSIDE OF PROPOSED ACCESS ROAD LIMITS.

3. GRADE ACCESS ROAD TO A SLOPE NOT TO EXCEED 20%. EXCESS SOIL CAN BE STOCKPILED ADJACENT TO PROPOSED ACCESS ROAD IN A LOCATION APPROVED BY THE DEPARTMENT.

4. INSTALL GEOTEXTILE AS DEPICTED IN DETAIL 1. OVERLAP PANELS BY A MINIMUM OF 2 FEET.

5. INSTALL #3 CRUSHED STONE OR CRUSHED GRAVEL (NYSDOT SPEC. 703-4, 703-6) WITH A MINIMUM THICKNESS OF 6 INCHES, SLOPED TO PROVIDE POSITIVE DRAINAGE.

6. INSTALL HEAVY DUTY SWING GATE ACROSS ENTRANCE WITH A MINIMUM OPENING OF 12 FT. INSTALL CHAIN LINK FENCE, EXTENDING EXISTING FENCE, PROVIDE GATE AND FENCE SPECIFICATIONS, CONSTRUCTION DETAILS, AND POST DESIGN PRIOR TO INSTALLATION. SUBJECT TO DEPARTMENT APPROVAL.
New York State of Department Environmental Conservation

Property Owner Acknowledgment/Consent Form

I, Edward J. Litwinski, hereby acknowledge and consent to the Department's Right of Entry for purposes of investigation, remediation, operation, maintenance and monitoring activities associated with the Old Upper Mountain Road Site, Site No. 932112, onto the premises described below:

Tax Map ID # 108.00-1-18
Address: 5723 Old Upper Mountain Road, Lockport, NY 14094

Signature

Date 1/27/2020

Daytime Phone Number (716) 289-3539

- Return This Copy to the NYSDEC in the Postage-Paid Envelope Provided

Nothing contained herein constitutes a waiver by the Department of any rights under applicable state and federal law nor does it constitute a release of any party from obligations under those same laws.
New York State of Department Environmental Conservation

Property Owner Acknowledgment/Consent Form

I, Edward Slusnitski, hereby acknowledge and consent to the Department's Right of Entry for purposes of investigation, remediation, operation, maintenance and monitoring activities associated with the Old Upper Mountain Road Site, Site No. 932112, onto the premises described below:

Tax Map ID # 108.00-1-17
Address: 5719 Old Upper Mountain Road, Lockport, NY 14094

Signature: [Signature]
Date: 1/27/2020
Daytime Phone Number: (716) 289-3539

- Return This Copy to the NYSDEC in the Postage-Paid Envelope Provided

Nothing contained herein constitutes a waiver by the Department of any rights under applicable state and federal law nor does it constitute a release of any party from obligations under those same laws.
March 17, 2021

Douglas Snow
6303 Shimer Drive
Lockport, NY 14094

Subject: Old Upper Mountain Road Site (Site Number 932112)
5729 Old Upper Mountain Road
Tax Parcel Number 108.00-1-20

Dear Mr. Snow:

The New York State Department of Environmental Conservation (DEC) is investigating hazardous waste contamination on or near your premises. This work is related to the Old Upper Mountain Road site (Site No. 932112) located in Lockport. Our records, as well as those of Niagara County, indicate that you are the owner of property located near the site area identified on the County of Niagara Tax Map, Town of Lockport, Tax Parcel Number 108.00-1-20.

The Inactive Hazardous Waste Disposal Site Remedial Program (State Superfund Program [SSF]), Environmental Conservation Law (ECL) Article 27 § 1309, (3)-(4) and § 1313(8), authorizes DEC or its authorized agents to enter upon any site, areas near such site, or area on which it has reason to believe that contaminants were disposed or discharged for purposes of inspection, sampling and testing, implementing a remedial program, long-term operation and maintenance, and temporary occupancy. This letter is to notify you of DEC’s intent to exercise its right to access your property, specified above, pursuant to the cited statutory authority. This is not a notice that DEC intends to acquire the above specified property nor is it an offer to acquire it.

DEC, acting through its officers, employees, agents and contractors and subcontractors are hereby designated, as authorized pursuant to the ECL to enter this inactive hazardous waste disposal site, and areas near such site, to implement the required investigation and remedy. Those designated persons must comply with the requirements set forth in the ECL. DEC has retained EA Engineering, P.C., to perform the required investigation and remedial design, and will retain a remedial contractor(s) to implement the required remedy pursuant to the State’s contracting requirements. You will be notified of the identity of the remedial contractor(s). DEC’s contractor(s) will be entering your real property at any time on or after April 2, 2021 for the purpose of:
• **Remedial Design (RD) Investigation** – The purpose of the RD Investigation is to collect additional data needed to complete the RD. This work requires the collection of samples of various environmental media. In order to take such samples, DEC may use or cause to be used such sampling methods as it determines to be necessary including, but not limited to, site surveying, soil sampling, soil borings, geophysical studies, and groundwater monitoring.

• **Remedial Action (RA)** – The purpose of the RA is to construct the selected remedy. At the Old Upper Mountain Road site, this includes but is not limited to site preparation, installation of an access road, grading, consolidation, and placement of waste that currently exists on and adjacent to the specified property to improve site stability and reduce future erosion and downstream transport of that waste, and surface restoration.

• **Site Management (SM)** – The purpose of SM is to monitor the condition of remediated sites and to maintain post-remediation conditions which will be specified in the SM Plan. In addition to the SM Plan, DEC will pursue an environmental easement to ensure all engineering and institutional controls following RA remain in place.

DEC will make every effort to cooperate with you throughout the implementation of the RA. Accordingly, DEC will pay the cost of the work to be conducted on your property.

Nothing contained herein constitutes a waiver by DEC or the State of New York of any rights held pursuant to any applicable state and/or federal law or a release for any party from any obligations held under those same laws.

Any questions or concerns about DEC’s operations on your property should be directed to Brianna Scharf, Project Manager, at (518) 402-5987 or Brianna.scharf@dec.ny.gov. Any questions regarding DEC’s legal authority should be directed to Leia Schmidt of the Office of General Counsel at leia.schmidt@dec.ny.gov or (518) 402-9195.

Sincerely,

Michael J. Ryan, P.E., Director
Division of Environmental Remediation

ec: G. Heitzman, DER
M. Cruden/S. Saucier/B. Scharf, DER
L. Schmidt, OGC
S. Radon, Region 9
M. Smith, EA
March 17, 2021

Robert and Naomi Matheis
7345 Osprey Landing Point
Lakeland, FL 33813

Subject: Old Upper Mountain Road Site (Site Number 932112)
101 Upper Mountain Road
Tax Parcel Number 108.19-1-35.11

Dear Mr. and Mrs. Matheis:

The New York State Department of Environmental Conservation (DEC) is investigating hazardous waste contamination on or near your premises. This work is related to the Old Upper Mountain Road site (Site No.932112) located in Lockport. Our records, as well as those of Niagara County, indicate that you are the owner of property located near the site area identified on the County of Niagara Tax Map, Town of Lockport, Tax Parcel Number 108.19-1-35.11.

The Inactive Hazardous Waste Disposal Site Remedial Program (State Superfund Program [SSF]), Environmental Conservation Law (ECL) Article 27 § 1309, (3)-(4) and § 1313(8), authorizes DEC or its authorized agents to enter upon any site, areas near such site, or area on which it has reason to believe that contaminants were disposed or discharged for purposes of inspection, sampling and testing, implementing a remedial program, long-term operation and maintenance, and temporary occupancy. This letter is to notify you of DEC’s intent to exercise its right to access your property, specified above, pursuant to the cited statutory authority. This is not a notice that DEC intends to acquire the above specified property nor is it an offer to acquire it.

DEC, acting through its officers, employees, agents and contractors and subcontractors are hereby designated, as authorized pursuant to the ECL to enter this inactive hazardous waste disposal site, and areas near such site, to implement the required investigation and remedy. Those designated persons must comply with the requirements set forth in the ECL. DEC has retained EA Engineering, P.C., to perform the required investigation and remedial design, and will retain a remedial contractor(s) to implement the required remedy pursuant to the State’s contracting requirements. You will be notified of the identity of the remedial contractor(s). DEC’s contractor(s) will be entering your real property at any time on or after April 2, 2021 for the purpose of:
- **Remedial Design (RD) Investigation** – The purpose of the RD Investigation is to collect additional data needed to complete the RD. This work requires the collection of samples of various environmental media. In order to take such samples, DEC may use or cause to be used such sampling methods as it determines to be necessary including, but not limited to, site surveying, soil sampling, soil borings, geophysical studies, and groundwater monitoring.

- **Remedial Action (RA)** – The purpose of the RA is to construct the selected remedy. At the Old Upper Mountain Road site, this includes but is not limited to site preparation, grading, consolidation, and placement of waste that currently exists on and adjacent to the specified property to improve site stability and reduce future erosion and downstream transport of that waste, and surface restoration.

- **Site Management (SM)** – The purpose of SM is to monitor the condition of remediated sites and to maintain post-remediation conditions which will be specified in the SM Plan. In addition to the SM Plan, DEC will pursue an environmental easement to ensure all engineering and institutional controls following RA remain in place.

DEC will make every effort to cooperate with you throughout the implementation of the RA. Accordingly, DEC will pay the cost of the work to be conducted on your property.

Nothing contained herein constitutes a waiver by DEC or the State of New York of any rights held pursuant to any applicable state and/or federal law or a release for any party from any obligations held under those same laws.

Any questions or concerns about DEC’s operations on your property should be directed to Brianna Scharf, Project Manager, at (518) 402-5987 or Brianna.scharf@dec.ny.gov. Any questions regarding DEC’s legal authority should be directed to Leia Schmidt of the Office of General Counsel at leia.schmidt@dec.ny.gov or (518) 402-9195.

Sincerely,

Michael J. Ryan, P.E., Director  
Division of Environmental Remediation

ec:  
G. Heitzman, DER  
M. Cruden/S. Saucier/B. Scharf, DER  
L. Schmidt, OGC  
S. Radon, Region 9  
M. Smith, EA
New York State Department of Environmental Conservation

Property Owner Acknowledgment/Consent Form

I, [Print Name] MELVYN HEAGES, hereby acknowledge and consent to the Department's Right of Entry for purposes of investigation, remediation, operation, maintenance and monitoring activities associated with the Old Upper Mountain Road Site, Site No. 932112, onto the premises described below:

Tax Map ID # 108.00-1-16
Address: 5701 Upper Mountain Road, Lockport, NY 14094

Signature [Signature]
Date 2-9-2020
Daytime Phone Number 916-863-7089

• Keep This Copy for Your Records

Nothing contained herein constitutes a waiver by the Department of any rights under applicable state and federal law nor does it constitute a release of any party from obligations under those same laws.
New York State of Department Environmental Conservation

Property Owner Acknowledgment/Consent Form

I ____________________________, hereby acknowledge and consent to
Print Name the Department's Right of Entry for purposes of investigation, remediation, operation,
maintenance and monitoring activities associated with the Old Upper Mountain Road
Site, Site No. 932112, onto the premises described below:

Tax Map ID # 108.00-1-7.12
Address: 4819 Sunset Drive, Lockport, NY 14094

Signature ____________________________________________

Date ________________

Daytime Phone Number ____________

- Return This Copy to the NYSDEC in the Postage-Paid Envelope Provided

Nothing contained herein constitutes a waiver by the Department of any rights under
applicable state and federal law nor does it constitute a release of any party from
obligations under those same laws.
New York State of Department Environmental Conservation

Property Owner Acknowledgment/Consent Form

[Signature] W. W. Edmister, hereby acknowledge and consent to

Print Name

the Department's Right of Entry for purposes of investigation, remediation, operation, maintenance and monitoring activities associated with the Old Upper Mountain Road Site, Site No. 932112, onto the premises described below:

Tax Map ID # 108.11-1-11
Address: 998 Niagara Street, Lockport, NY 14094

Signature

W. W. Edmister

Date

2/23/20

Daytime Phone Number

716 213 3185

- Return This Copy to the NYSDEC in the Postage-Paid Envelope Provided

Nothing contained herein constitutes a waiver by the Department of any rights under applicable state and federal law nor does it constitute a release of any party from obligations under those same laws.
SITE ACCESS AGREEMENT

This Site Access Agreement (the “Agreement”) made and entered into on this 17th day of August, 2020, by and between the New York State Department of Environmental Conservation (“DEC”), having an office at 625 Broadway, 12th floor, Albany, NY 12233, and Somerset Railroad Corporation (“Owner”), having an address 7725 Lake Road, Barker, NY 14012.

Recitals

A. Owner owns certain property and associated rail line between the southern terminus at the connection to the existing CSX line north to Niagara Street, Lockport NY 14094, New York with property tax IDs 700.00-40-1 and 108.00-1-52 (the “Property”). See figure 1 for a map of the Property attached to this Agreement as Exhibit A.

B. DEC desires access to and the Property for the purposes of investigation and remediation, operation, maintenance and monitoring activities associated with hazardous waste contamination associated with the Old Upper Mountain Road Site, Site No. 932112 located near the Property (“Project”). In furtherance of the Project, DEC may desire to install a new sanitary sewer line on the Property (the investigation, remediation, operation and maintenance and monitoring activities as well as the installation of the sanitary sewer line described in this Recital B, collectively, the “Work”).

C. The Owner desires to grant to DEC and its employees, agents and contractors access to the Property to perform the Work, subject to Owner’s prior written consent.

NOW, in consideration of the mutual promises and covenants set forth in this Agreement and other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, Owner and DEC agree as follows:

1. Work. DEC and the Owner hereby expressly acknowledge and agree that any Work performed by DEC during the term of this Agreement remains subject to the prior written approval by Owner, which may be given via electronic mail by the Owner’s representative referenced in Section 9 (Notices) below, or by such other Representative as Owner may designate to DEC in writing.

2. Permits. DEC shall obtain all permits, consents, approvals and/or licenses required for the performance of the approved Work undertaken pursuant to this Agreement, and shall provide the Owner with copies thereof.

3. Access. The Owner grants to DEC and its employees, and, with the prior written consent of Owner, DEC’s contractors and agents (“Representatives”), the right of ingress and egress on, over, through, across, to and from the Property as reasonably required to perform the approved Work. DEC shall perform the approved Work on the Property at its sole cost and expense and using reasonable engineering judgment performed to the standards in accordance in
prevailing industry standards and as required under applicable law and regulation in effect as of
the date of this Agreement or as required under any order or directive issued by any
governmental authority having jurisdiction over the Property. In undertaking access, DEC and
its Representatives shall utilize best efforts to minimize disruption to current activities on, and to
prevent damage to the rail line, buildings, structures and other improvements on the Property or
any personal property of Owner or others located at, on or near the Property.

DEC and its Representatives shall have access to the Property Monday through Friday
between the hours of 8:00am and 5:00pm unless other arrangements are made with the Owner.
DEC and its Representatives will follow all of Owner’s instructions and policies and will operate
under Owner’s safety rules. All waste generated in connection with the approved Work will be
removed from the Property on the day they are generated and managed in accordance with
applicable laws and regulations.

4. Term and Termination. This Agreement shall begin on the date hereof and shall
continue until the later of (i) one (1) year from the date of this Agreement, or (ii) the completion
date of the approved Work, unless terminated by mutual written agreement of the parties hereto.

5. Indemnification.

Subject to the availability of lawful appropriations, and as provided by New York State’s
Court Of Claims Act and Section 17 of the New York State Public Officers Law, NYSDEC
hereby agrees to indemnify and hold harmless the Owner for any and all causes of action in law
or equity, arising directly from NYSDEC, its employees, agents, consultants, contractors and
subcontractors, use and access of the Property.

The duty to indemnify and hold harmless shall be conditioned upon delivery to the
Attorney General by Owner of the original or a copy of any summons, complaint, process,
notice, demand or pleading within five days of receipt.

The NYSDEC, for and on behalf of its employees, agents, consultants, contractors and
subcontractors, hereby releases Owner from any liability directly arising from the use and access
of the Property by its employees, agents, consultants, contractors and subcontractors.

6. Assumption of Risk. DEC shall assume the entire and complete risk of entering
upon the Property and performing the approved Work and agrees to assume on behalf of itself
and its Representatives the risk of operations under this Agreement.

7. Restoration. After the approved Work has been completed, DEC shall promptly
restore those portions of the Property which are in any way affected, damaged or disturbed due
to the performance of the approved Work to a condition which is substantially the same as
existed prior to the commencement of the approved Work, at DEC’s sole cost and expense.
8. **Insurance Requirements.** DEC’s contractors will provide the Owner with certificates of insurance evidencing the following coverage:

<table>
<thead>
<tr>
<th>Kind of Insurance</th>
<th>Limits of Liability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statutory Worker's Compensation and Employers Liability Insurance</td>
<td>With available limits of not less than FIVE MILLION AND 00/100 U.S. DOLLARS ($5,000,000.00), which must contain a waiver of subrogation against Owner and its affiliates</td>
</tr>
<tr>
<td>Commercial General Liability coverage (inclusive of contractual liability)</td>
<td>With available limits of not less than FIVE MILLION AND 00/100 U.S. DOLLARS ($5,000,000.00), naming Owner, and/or its designee, as additional insured and in combined single limits for bodily injury and property damage and covering the contractual liabilities assumed under this Agreement</td>
</tr>
<tr>
<td>Business Automobile Liability</td>
<td>With available limits of not less than ONE MILLION AND 00/100 U.S. DOLLARS ($1,000,000.00) combined single limit for bodily injury and/or property damage per occurrence, naming Owner, and/or its designee, as additional insured</td>
</tr>
</tbody>
</table>

The evidence of insurance coverage shall be endorsed to provide for thirty (30) days’ notice to the Owner, or its designee, prior to cancellation or modification of any policy. If Contractor’s existing Commercial General Liability policy(ies) do(es) not automatically cover Contractor’s contractual liability during periods of survey, installation, maintenance and continued occupation as permitted under this Agreement, a specific endorsement adding such coverage shall be purchased by Contractor.

9. **Notices.** Any notice or other communication required or permitted hereunder shall be in writing and shall be delivered personally or by reputable overnight courier, sent by facsimile transmission, electronic mail or sent by certified, registered or express mail, postage prepaid and return receipt requested. Any such notice shall be deemed given (i) when delivered, if delivered personally or by overnight courier, (ii) when transmitted, if sent by facsimile transmission or electronic mail (if evidenced by an email delivery receipt or fax transmission confirmation) or (iii) if mailed, five (5) days after the date of deposit in the United States mails, as follows:
To the Owner:  Somerset Railroad Corp.
c/o Heorot Power Management LLC
Attn: Doug Roll, Director of Operations
Director of Operations
228 Cayuga Drive
Lansing, New York 14882
Telephone: (607) 533-7913-ext 2246
Mobile: (585) 820-3020
Email: droll@heorotpower.com

With a copy (which shall not constitute notice) to:

Beowulf Energy LLC
9 Federal Street
Easton, MD  21601
Attn.: General Counsel
Tel.: 410-770-9500
Facsimile: 410-770-9705
Email:

To DEC:   New York State Department of Environmental
Conservation
Brianna Scharf
Division of Environmental Remediation
625 Broadway, Albany, NY 12233-7017
Tel.: (518) 402-5987
Facsimile: (518) 402-9819
Email: brianna.scharf@dec.ny.gov

10. **Entire Agreement; Binding Effect; Assignment.** This Agreement constitutes the entire agreement between Owner and DEC with respect to the subject matter hereof and supersedes all prior agreements with respect thereto. No delay or failure of either Owner or DEC to exercise any right or remedy available to it pursuant to this Agreement shall operate as a waiver of such right or remedy. All the terms and provisions of this Agreement shall extend to, bind and inure to the benefit of the parties, their successors, assigns. Neither Owner nor DEC shall assign its rights or obligations under this Agreement without the other party’s prior written consent.

11. **Severability.** If any paragraph, part, term or provision of this Agreement is construed or held to be void, invalid or unenforceable by Order, Decree or Judgment of a court of competent jurisdiction, the remaining paragraphs, parts, terms or provisions shall not be affected thereby, but shall remain in full force and effect.
12. **Governing Law.** The terms of this Agreement shall be governed by and construed in accordance with the laws of the State of New York, without reference to the conflict of laws provision thereof which would give rise to the application of the domestic substantive law of any other jurisdiction. Each of DEC and Owner hereby irrevocably and unconditionally consents to the exclusive jurisdiction of the federal and state courts sitting in Albany County, New York for any action, suit or proceeding arising out of or related hereto. Each of DEC and Owner further hereby irrevocably and unconditionally waives any objection to the laying of venue of any action, suit or proceeding arising out of or relating to this Agreement in such courts, and hereby further irrevocably and unconditionally waives and agrees not to plead or claim in any such court that any such action, suit or proceeding brought in any such court has been brought in any inconvenient forum. Each of DEC and Owner hereby knowingly, voluntarily and intentionally waives any right (to the fullest extent permitted by applicable law) to a trial by jury of any dispute arising out of, under or relating to, this Agreement and agrees that any such dispute shall be tried before a judge sitting without a jury.

13. **Modification.** This Agreement may be amended only by a writing executed by both DEC and Owner.

14. **Counterparts.** This Agreement may be executed in counterparts, each of which when so executed shall be deemed to be an original all of which taken together shall constitute one and the same instrument. A signed copy of this Agreement delivered by facsimile, email, PDF or other means of electronic transmission shall be deemed to have the same legal effect as delivery of an original signed copy of this Agreement.

15. **Authority.** Each person executing this Agreement represents that the party on whose behalf the person is executing this Agreement has duly authorized the execution of this Agreement and that such person is authorized to execute the Agreement on behalf of such party.

[Signatures follow on next page.]
The parties have executed this Agreement as of the day and year first above written as follows:

SOMERSET RAILROAD CORPORATION

By:  
Name: Mila Barrett  
Title: Secretary

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

By:  
Name: Michael J. Ryan  
Title: Director, Division of Environmental Remediation
Regulatory Branch

SUBJECT: Department of the Army No. LRB-2016-00251, Nationwide Permit No. 38 as Published in the Federal Register, Volume 82, No. 4, on Friday, January 6, 2017

Ms. Brianna Scharf
New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233

Dear Ms. Scharf:

This pertains to your application for a Department of the Army permit to conduct remediation activities at the Old Upper Mountain Road Site No. 932112, located at Old Upper Mountain Road, in the Town of Lockport, Niagara County, New York.

Specifically, I refer to the pre-construction notification (PCN) you submitted requesting Department of the Army (DA) authorization. As of November 26, 2020, more than 45 calendar days have passed since your complete PCN was received. In accordance with 2017 Nationwide Permit General Condition 32 (a) (2), since you did not receive written notice from the district or division engineer prior to this date you were authorized to begin your activity under Nationwide Permit (NWP) 38.

However, to comply with NWP general condition #18 specific to endangered species and general condition #20 specific to historic properties an evaluation of these resources was performed. As a result, this office has determined that consultation is not required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or Section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)) as there is “no effect” on listed species or “no potential to cause effects” on historic properties.

Again, you were authorized to begin your activity under Nationwide Permit (NWP) 38. However, it is incumbent upon you to construct your activity in compliance with the terms and conditions of the NWP (see attached). The NWPs expire on March 18, 2022. It is your responsibility to remain informed of changes to the NWP program. A public notice announcing any changes will be issued when they occur and will be available for viewing at our website: http://www.lrb.usace.army.mil/Missions/Regulatory.aspx. Note, that if your activity is not undertaken within the defined period or the project specifications have changed, you must immediately notify this office to determine the need for further approval. Your initiation of work as authorized by the enclosed NWP acknowledges your acceptance of the general and regional conditions contained therein. This does not obviate the need to obtain any other project specific Federal, state, or local authorization.
Questions pertaining to this matter should be directed to me at 716-879-4308, by writing to the following address: U.S. Army Corps of Engineers, 1776 Niagara Street, Buffalo, New York 14207, or by e-mail at: Heather.L.Adams@usace.army.mil

Sincerely,

Heather Adams
Biologist
March 1, 2022

Regulatory Branch

SUBJECT: Application No. LRB-2016-00251, Nationwide Permit No. 38 as Published in the Federal Register, Volume 86, No. 8, on Wednesday, January 13, 2021

Ms. Brianna Scharf
New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233

Dear Ms. Scharf:

This pertains to your request for a reverification of a previously affirmed Nationwide Permit #38 to conduct remediation activities at the Old Upper Mountain Road Site No. 932112, located at Old Upper Mountain Road, in the Town of Lockport, Niagara County, New York.

I have evaluated the request, and have concluded that they are authorized by the enclosed Nationwide Permit (NWP) provided that the attached conditions are satisfied.

Verification of the applicability of this NWP is valid until March 14, 2026 unless the NWP is modified, suspended, revoked, or the activity complies with any subsequent permit modification. Please note in accordance with 33 CFR part 330.6(b), that if you commence or are under contract to commence an activity in reliance of the permit prior to the date this NWP expires, is suspended or revoked, or is modified such that the activity no longer complies with the terms and conditions, you have twelve months from the date of permit modification, expiration, or revocation to complete the activity under the present terms and conditions of the permit, unless the permit has been subject to the provisions of discretionary authority.

It is your responsibility to remain informed of changes to the NWP program. A public notice announcing any changes will be issued when they occur and will be available for viewing at our website: http://www.lrb.usace.army.mil/Missions/Regulatory.aspx. Finally, note that if your activity is not undertaken within the defined period or the project specifications have changed, you must immediately notify this office to determine the need for further approval or reverification.

Your initiation of work as authorized by the enclosed NWP acknowledges your acceptance of the general and special conditions contained therein. This affirmation is limited to the attached NWP and associated WQC, and does not obviate the need to obtain any other project specific Federal, state, or local authorization. Specifically, you may need to obtain Article 15 (Protection of Water), Article 24 (Freshwater Wetland), and/or Article 34 (Coastal Erosion Management) authorization from the New York State DEC.
Regulatory Branch

SUBJECT: Application No. LRB-2016-00251, Nationwide Permit No. 38 as Published in the Federal Register, Volume 86, No. 8, on Wednesday, January 13, 2021

Questions pertaining to this matter should be directed to me at (716) 879-4279 by writing to the following address: U.S. Army Corps of Engineers Regulatory Branch 1776 Niagara Street, Buffalo, New York 14207 or by e-mail at: Joseph.M.Rowley@usace.army.mil.

Sincerely,

Joseph Rowley
Physical Scientist

Enclosures
Each permittee who receives a Nationwide Permit (NWP) verification letter from the Corps must provide a signed certification documenting completion of the authorized activity and any compensatory mitigation.

APPLICANT: NYSDEC
625 Broadway 3rd Floor
Albany, NY  12233

POINT OF CONTACT: Adam Etringer
EA Science and Technology
269 W. Jefferson Street
Syracuse, NY  13202

File No.: LRB-2016-00251
File Closed: March 1, 2022
NWP No.: 38

Upon completion of the activity authorized by this permit and any required compensatory mitigation sign this certification and return it to the address listed below within 30 days of project completion.

Please note that your permitted activity is subject to a compliance inspection by a U.S. Army Corps of Engineers representative. If you fail to comply with this permit you are subject to permit suspension, modification, revocation, and/or assessment of administrative penalties.

The permittee shall certify the completion of the authorized work and mitigation:

a. The authorized work was done in accordance with the NWP authorization, including any general, regional, or activity specific conditions.

b. The implementation of any required compensatory mitigation was completed in accordance with the permit conditions. If credits from a mitigation bank or in-lieu fee program are used to satisfy the compensatory mitigation requirements, this certification must include the documentation required by 33 CFR 332.3(1)(3) to confirm that the permittee secured the appropriate number and resource type of credits.

________________________________________  ____________________________
NYSDEC  Date

Permittee Telephone Number: ________________________________

Project location: Old Upper Mountain Road Sit No. 932112, located at Old Upper Mountain Road, in the Town of Lockport, Niagara County, New York

Project Description: remediation activities

Authorized Impacts (Waters of the U.S. Impacted by Project): Temporary Impacts – 4.25 acres

Waterway and/or Project Setting: Gulf Creek; Gulf Creek Wetlands

Return completed form to: LRB.Regulatory.PermitCompliance@usace.army.mil (Preferred)
Or Mail to: Mr. David Leput
Regulatory Branch
U.S. Army Corps of Engineers
1776 Niagara Street
Buffalo, NY  14207
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38. Cleanup of Hazardous and Toxic Waste. Specific activities required to effect the containment, stabilization, or removal of hazardous or toxic waste materials that are performed, ordered, or sponsored by a government agency with established legal or regulatory authority. Court ordered remedial action plans or related settlements are also authorized by this NWP. This NWP does not authorize the establishment of new disposal sites or the expansion of existing sites used for the disposal of hazardous or toxic waste.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity. (See general condition 32.) (Authorities: Sections 10 and 404)

Note: Activities undertaken entirely on a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) site by authority of CERCLA as approved or required by EPA, are not required to obtain permits under Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act.

Buffalo District Only Permit-specific Regional Conditions: None

New York District Only Permit-specific Regional Conditions:

a. For those activities that are located within Essential Fish Habitat (EFH) waters as defined in Section G-E.8. below, to the maximum extent practicable, no in-water work shall occur between March 1 and June 30.

b. Within EFH or within areas supporting anadromous fish migration and spawning, as discussed in Section G-E.8. below, the applicant shall include anadromous fish information in the required Pre-Construction Notification (PCN) for USACE coordination with the National Marine Fisheries Service (NMFS).

c. For those activities that would impact more than 0.5 acres of waters of the United States, and are located within EFH, a PCN is required for USACE coordination with the NMFS.

Section 401 Water Quality Certification (WQC):
The WQC has been denied for this NWP by all certifying authorities as follows:

i. New York State Department of Public Services (NYSDPS) for activities that relate to the construction and operation of major natural gas or electric transmission facilities undertaken pursuant to New York State Public Service Law (PSL) Article VII.

ii. New York State Office of Renewable Energy Siting (NYSORES) for activities that relate to the construction and operation of major renewable electric generating facilities undertaken pursuant to New York State Executive Law Article 6, Section 94-C.

iii. New York State Board on Electric Generation Siting and the Environment (Siting Board) for activities that relate to new and repowered or modified major electric generating facilities of 25 megawatts or more undertaken pursuant to PSL Article 10.

iv. U.S. Environmental Protection Agency (USEPA), as the certifying agency for the seven federally recognized Indian Nations in New York (Cayuga Nation, Onondaga Nation, Oneida Nation of Indians, Seneca Nation of Indians, Shinnecock Indian Nation, Tonawanda Seneca Nation, and Tuscarora Nation) for all activities occurring on these tribal lands.

v. Saint Regis Mohawk Tribe for all activities occurring on Saint Regis Mohawk Tribal land.

vi. New York State Department of Environmental Conservation (NYSDEC) for those activities not covered above in i. through v. in New York State.
Any party conducting proposing to conduct the activities authorized by this NWP must apply for and obtain an individual WQC or waiver thereof from the appropriate certifying authority. Refer to Section K below for agency contact information.

New York State Department of State Coastal Zone Management Consistency Determination: Pursuant to 15 CFR Part 930.41, the New York State Department of State (NYSDOS) concurs with the USACE’ consistency determination for this NWP anywhere in the New York State coastal area with which all general and all Buffalo and New York District regional conditions are complied.

For activities that are proposed within the New York City Waterfront Revitalization Program, the NYSDOS objects to the USACE’ consistency determination and therefore, an individual consistency concurrence determination from NYSDOS is required for this NWP to be valid. See Section I below for further information. Such activities shall be submitted to NYSDOS for review by the applicant. NYSDOS will review the proposed activities pursuant to 15 CFR Part 930 Subpart D. NYSDOS concurrence with an applicant's consistency certification shall not be presumed unless NYSDOS fails to concur with or object to an applicant's consistency certification within six (6) months of commencement of NYSDOS' review of an applicant's consistency certification and all necessary data and information in accordance with 15 CFR § 930.62 or § 930.63. See Section I below for further information.

C. NATIONWIDE PERMIT GENERAL CONDITIONS

Note: To qualify for NWP authorization, the prospective permittee must comply with the following general conditions, as applicable, in addition to any regional or case-specific conditions imposed by the division engineer or district engineer. Prospective permittees should contact the appropriate Corps district office to determine if regional conditions have been imposed on an NWP. Prospective permittees should also contact the appropriate Corps district office to determine the status of Clean Water Act Section 401 water quality certification and/or Coastal Zone Management Act consistency for an NWP. Every person who may wish to obtain permit authorization under one or more NWPs, or who is currently relying on an existing or prior permit authorization under one or more NWPs, has been and is on notice that all of the provisions of 33 CFR 330.1 through 330.6 apply to every NWP authorization. Note especially 33 CFR 330.5 relating to the modification, suspension, or revocation of any NWP authorization.

1. Navigation. (a) No activity may cause more than a minimal adverse effect on navigation.

(b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.

(c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his or her authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

2. Aquatic Life Movements. No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species. If a bottomless culvert cannot be used, then the crossing should be designed and constructed to minimize adverse effects to aquatic life movements.
3. **Spawning Areas.** Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

4. **Migratory Bird Breeding Areas.** Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

5. **Shellfish Beds.** No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWPs 4 and 48, or is a shellfish seeding or habitat restoration activity authorized by NWP 27.

6. **Suitable Material.** No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see section 307 of the Clean Water Act).

7. **Water Supply Intakes.** No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

8. **Adverse Effects From Impoundments.** If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

9. **Management of Water Flows.** To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization, storm water management activities, and temporary and permanent road crossings, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

10. **Fills Within 100-Year Floodplains.** The activity must comply with applicable FEMA-approved state or local floodplain management requirements.

11. **Equipment.** Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

12. **Soil Erosion and Sediment Controls.** Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow, or during low tides.

13. **Removal of Temporary Structures and Fills.** Temporary structures must be removed, to the maximum extent practicable, after their use has been discontinued. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

14. **Proper Maintenance.** Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable NWP general conditions, as well as any activity-specific conditions added by the district engineer to an NWP authorization.

15. **Single and Complete Project.** The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.
16. **Wild and Scenic Rivers.** (a) No NWP activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a “study river” for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status.

(b) If a proposed NWP activity will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a “study river” for possible inclusion in the system while the river is in an official study status, the permittee must submit a pre-construction notification (see general condition 32). The district engineer will coordinate the PCN with the Federal agency with direct management responsibility for that river. Permittees shall not begin the NWP activity until notified by the district engineer that the Federal agency with direct management responsibility for that river has determined in writing that the proposed NWP activity will not adversely affect the Wild and Scenic River designation or study status.

(c) Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency responsible for the designated Wild and Scenic River or study river (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service). Information on these rivers is also available at: http://www.rivers.gov/.

17. **Tribal Rights.** No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

18. **Endangered Species.** (a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify designated critical habitat or critical habitat proposed for such designation. No activity is authorized under any NWP which “may affect” a listed species or critical habitat unless ESA section 7 consultation addressing the consequences of the proposed activity on listed species or critical habitat has been completed. See 50 CFR 402.02 for the definition of “effects of the action” for the purposes of ESA section 7 consultation, as well as 50 CFR 402.17, which provides further explanation under ESA section 7 regarding “activities that are reasonably certain to occur” and “consequences caused by the proposed action.”

(b) Federal agencies should follow their own procedures for complying with the requirements of the ESA (see 33 CFR 330.4(f)(1)). If pre-construction notification is required for the proposed activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation has not been submitted, additional ESA section 7 consultation may be necessary for the activity and the respective federal agency would be responsible for fulfilling its obligation under section 7 of the ESA.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if any listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed such designation) might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat or critical habitat proposed for such designation, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation), the pre-construction notification must include the name(s) of the endangered or threatened species (or species proposed for listing) that might be affected by the proposed activity or that utilize the designated critical habitat (or critical habitat proposed for such designation) that might be affected by the proposed activity. The district engineer will determine whether the proposed activity “may affect” or will have “no effect” to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps’ determination within 45 days of receipt of a complete pre-construction notification. For activities where the non-Federal applicant has identified...
listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed
for such designation) that might be affected or is in the vicinity of the activity, and has so notified the
Corps, the applicant shall not begin work until the Corps has provided notification that the proposed
activity will have "no effect" on listed species (or species proposed for listing or designated critical
habitat (or critical habitat proposed for such designation), or until ESA section 7 consultation or
conference has been completed. If the non-Federal applicant has not heard back from the Corps within
45 days, the applicant must still wait for notification from the Corps.

(d) As a result of formal or informal consultation or conference with the FWS or NMFS the district
engineer may add species-specific permit conditions to the NWPs.

(e) Authorization of an activity by an NWP does not authorize the “take” of a threatened or endangered
species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10
Permit, a Biological Opinion with “incidental take” provisions, etc.) from the FWS or the NMFS, the
Endangered Species Act prohibits any person subject to the jurisdiction of the United States to take a
listed species, where "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or
collect, or to attempt to engage in any such conduct. The word "harm" in the definition of “take” means
an act which actually kills or injures wildlife. Such an act may include significant habitat modification or
degradation where it actually kills or injures wildlife by significantly impairing essential behavioral
patterns, including breeding, feeding or sheltering.

(f) If the non-federal permittee has a valid ESA section 10(a)(1)(B) incidental take permit with an
approved Habitat Conservation Plan for a project or a group of projects that includes the proposed
NWP activity, the non-federal applicant should provide a copy of that ESA section 10(a)(1)(B) permit
with the PCN required by paragraph (c) of this general condition. The district engineer will coordinate
with the agency that issued the ESA section 10(a)(1)(B) permit to determine whether the proposed
NWP activity and the associated incidental take were considered in the internal ESA section 7
consultation conducted for the ESA section 10(a)(1)(B) permit. If that coordination results in
concurrence from the agency that the proposed NWP activity and the associated incidental take were
considered in the internal ESA section 7 consultation for the ESA section 10(a)(1)(B) permit, the district
engineer does not need to conduct a separate ESA section 7 consultation for the proposed NWP
activity. The district engineer will notify the non-federal applicant within 45 days of receipt of a complete
pre-construction notification whether the ESA section 10(a)(1)(B) permit covers the proposed NWP
activity or whether additional ESA section 7 consultation is required.

(g) Information on the location of threatened and endangered species and their critical habitat can be
obtained directly from the offices of the FWS and NMFS or their world wide web pages at
respectively.

19. Migratory Birds and Bald and Golden Eagles. The permittee is responsible for ensuring that an
action authorized by an NWP complies with the Migratory Bird Treaty Act and the Bald and Golden Eagle
Protection Act. The permittee is responsible for contacting the appropriate local office of the U.S. Fish and
Wildlife Service to determine what measures, if any, are necessary or appropriate to reduce adverse effects
to migratory birds or eagles, including whether "incidental take" permits are necessary and available under
the Migratory Bird Treaty Act or Bald and Golden Eagle Protection Act for a particular activity.

20. Historic Properties. (a) No activity is authorized under any NWP which may have the potential to cause
effects to properties listed, or eligible for listing, in the National Register of Historic Places until the
requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

(b) Federal permittees should follow their own procedures for complying with the requirements of
section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)(1)). If pre-construction
notification is required for the proposed NWP activity, the Federal permittee must provide the district
engineer with the appropriate documentation to demonstrate compliance with those requirements. The
district engineer will verify that the appropriate documentation has been submitted. If the appropriate
documentation is not submitted, then additional consultation under section 106 may be necessary. The respective federal agency is responsible for fulfilling its obligation to comply with section 106.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if the NWP activity might have the potential to cause effects to any historic properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties might have the potential to be affected by the proposed NWP activity or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of, or potential for, the presence of historic properties can be sought from the State Historic Preservation Officer, Tribal Historic Preservation Officer, or designated tribal representative, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). When reviewing pre-construction notifications, district engineers will comply with the current procedures for addressing the requirements of section 106 of the National Historic Preservation Act. The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts commensurate with potential impacts, which may include background research, consultation, oral history interviews, sample field investigation, and/or field survey. Based on the information submitted in the PCN and these identification efforts, the district engineer shall determine whether the proposed NWP activity has the potential to cause effects on the historic properties. Section 106 consultation is not required when the district engineer determines that the activity does not have the potential to cause effects on historic properties. Section 106 consultation is required when the district engineer determines that the activity has the potential to cause effects on historic properties. The district engineer will conduct consultation with consulting parties identified under 36 CFR 800.2(c) when he or she makes any of the following effect determinations for the purposes of section 106 of the NHPA: no historic properties affected, no adverse effect, or adverse effect.

(d) Where the non-Federal applicant has identified historic properties on which the proposed NWP activity might have the potential to cause effects and has so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects to historic properties or that NHPA section 106 consultation has been completed. For non-federal permittees, the district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA section 106 consultation is required. If NHPA section 106 consultation is required, the district engineer will notify the non-Federal applicant that he or she cannot begin the activity until section 106 consultation is completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(e) Prospective permittees should be aware that section 110k of the NHPA (54 U.S.C. 306113) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

21. Discovery of Previously Unknown Remains and Artifacts. Permittees that discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by an NWP, they must immediately notify the district engineer of what they have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required
coordination has been completed. The district engineer will initiate the Federal, Tribal, and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

22. **Designated Critical Resource Waters.** Critical resource waters include, NOAA-managed marine sanctuaries and marine monuments, and National Estuarine Research Reserves. The district engineer may designate, after notice and opportunity for public comment, additional waters officially designated by a state as having particular environmental or ecological significance, such as outstanding national resource waters or state natural heritage sites. The district engineer may also designate additional critical resource waters after notice and opportunity for public comment.

   (a) Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, 50, 51, 52, 57 and 58 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.

   (b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, 38, and 54, notification is required in accordance with general condition 32, for any activity proposed by permittees in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after she or he determines that the impacts to the critical resource waters will be no more than minimal.

23. **Mitigation.** The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal:

   (a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).

   (b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the extent necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal.

   (c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse environmental effects of the proposed activity are no more than minimal, and provides an activity-specific waiver of this requirement. For wetland losses of 1/10-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in only minimal adverse environmental effects.

   (d) Compensatory mitigation at a minimum one-for-one ratio will be required for all losses of stream bed that exceed 3/100-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse environmental effects of the proposed activity are no more than minimal, and provides an activity-specific waiver of this requirement. This compensatory mitigation requirement may be satisfied through the restoration or enhancement of riparian areas next to streams in accordance with paragraph (e) of this general condition. For losses of stream bed of 3/100-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in only minimal adverse environmental effects. Compensatory mitigation for losses of streams should be provided, if practicable, through stream rehabilitation, enhancement, or preservation, since streams are difficult-to-replace resources (see 33 CFR 332.3(e)(3)).
(e) Compensatory mitigation plans for NWP activities in or near streams or other open waters will normally include a requirement for the restoration or enhancement, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, the restoration or maintenance/protection of riparian areas may be the only compensatory mitigation required. If restoring riparian areas involves planting vegetation, only native species should be planted. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. If it is not possible to restore or maintain/protect a riparian area on both sides of a stream, or if the waterbody is a lake or coastal waters, then restoring or maintaining/protecting a riparian area along a single bank or shoreline may be sufficient. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of minimization or compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

(f) Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR part 332.

(1) The prospective permittee is responsible for proposing an appropriate compensatory mitigation option if compensatory mitigation is necessary to ensure that the activity results in no more than minimal adverse environmental effects. For the NWPs, the preferred mechanism for providing compensatory mitigation is mitigation bank credits or in-lieu fee program credits (see 33 CFR 332.3(b)(2) and (3)). However, if an appropriate number and type of mitigation bank or in-lieu credits are not available at the time the PCN is submitted to the district engineer, the district engineer may approve the use of permittee-responsible mitigation.

(2) The amount of compensatory mitigation required by the district engineer must be sufficient to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see 33 CFR 330.1(e)(3)). (See also 33 CFR 332.3(f).)

(3) Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, aquatic resource restoration should be the first compensatory mitigation option considered for permittee-responsible mitigation.

(4) If permittee-responsible mitigation is the proposed option, the prospective permittee is responsible for submitting a mitigation plan. A conceptual or detailed mitigation plan may be used by the district engineer to make the decision on the NWP verification request, but a final mitigation plan that addresses the applicable requirements of 33 CFR 332.4(c)(2) through (14) must be approved by the district engineer before the permittee begins work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation (see 33 CFR 332.3(k)(3)). If permittee-responsible mitigation is the proposed option, and the proposed compensatory mitigation site is located on land in which another federal agency holds an easement, the district engineer will coordinate with that federal agency to determine if proposed compensatory mitigation project is compatible with the terms of the easement.

(5) If mitigation bank or in-lieu fee program credits are the proposed option, the mitigation plan needs to address only the baseline conditions at the impact site and the number of credits to be provided (see 33 CFR 332.4(c)(1)(ii)).

(6) Compensatory mitigation requirements (e.g., resource type and amount to be provided as compensatory mitigation, site protection, ecological performance standards, monitoring requirements) may be addressed through conditions added to the NWP authorization, instead of components of a compensatory mitigation plan (see 33 CFR 332.4(c)(1)(ii)).
Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example, if an NWP has an acreage limit of 1/2-acre, it cannot be used to authorize any NWP activity resulting in the loss of greater than 1/2-acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that an NWP activity already meeting the established acreage limits also satisfies the no more than minimal impact requirement for the NWPs.

Permittees may propose the use of mitigation banks, in-lieu fee programs, or permittee-responsible mitigation. When developing a compensatory mitigation proposal, the permittee must consider appropriate and practicable options consistent with the framework at 33 CFR 332.3(b). For activities resulting in the loss of marine or estuarine resources, permittee-responsible mitigation may be environmentally preferable if there are no mitigation banks or in-lieu fee programs in the area that have marine or estuarine credits available for sale or transfer to the permittee. For permittee-responsible mitigation, the special conditions of the NWP verification must clearly indicate the party or parties responsible for the implementation and performance of the compensatory mitigation project, and, if required, its long-term management.

Where certain functions and services of waters of the United States are permanently adversely affected by a regulated activity, such as discharges of dredged or fill material into waters of the United States that will convert a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse environmental effects of the activity to the no more than minimal level.

**24. Safety of Impoundment Structures.** To ensure that all impoundment structures are safely designed, the district engineer may require non-Federal applicants to demonstrate that the structures comply with established state or federal, dam safety criteria or have been designed by qualified persons. The district engineer may also require documentation that the design has been independently reviewed by similarly qualified persons, and appropriate modifications made to ensure safety.

**25. Water Quality.** (a) Where the certifying authority (state, authorized tribe, or EPA, as appropriate) has not previously certified compliance of an NWP with CWA section 401, a CWA section 401 water quality certification for the proposed discharge must be obtained or waived (see 33 CFR 330.4(c)). If the permittee cannot comply with all of the conditions of a water quality certification previously issued by certifying authority for the issuance of the NWP, then the permittee must obtain a water quality certification or waiver for the proposed discharge in order for the activity to be authorized by an NWP.

If the NWP activity requires pre-construction notification and the certifying authority has not previously certified compliance of an NWP with CWA section 401, the proposed discharge is not authorized by an NWP until water quality certification is obtained or waived. If the certifying authority issues a water quality certification for the proposed discharge, the permittee must submit a copy of the certification to the district engineer. The discharge is not authorized by an NWP until the district engineer has notified the permittee that the water quality certification requirement has been satisfied by the issuance of a water quality certification or a waiver.

The district engineer or certifying authority may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.

**26. Coastal Zone Management.** In coastal states where an NWP has not previously received a state coastal zone management consistency concurrence, an individual state coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). If the permittee cannot comply with all of the conditions of a coastal zone management consistency concurrence previously issued by the state, then the permittee must obtain an individual coastal zone management consistency concurrence or presumption of concurrence in order for the activity to be
authorized by an NWP. The district engineer or a state may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.

27. Regional and Case-By-Case Conditions. The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its CWA section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

28. Use of Multiple Nationwide Permits. The use of more than one NWP for a single and complete project is authorized, subject to the following restrictions:

(a) If only one of the NWPs used to authorize the single and complete project has a specified acreage limit, the acreage loss of waters of the United States cannot exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed 1/3-acre.

(b) If one or more of the NWPs used to authorize the single and complete project has specified acreage limits, the acreage loss of waters of the United States authorized by those NWPs cannot exceed their respective specified acreage limits. For example, if a commercial development is constructed under NWP 39, and the single and complete project includes the filling of an upland ditch authorized by NWP 46, the maximum acreage loss of waters of the United States for the commercial development under NWP 39 cannot exceed 1/2-acre, and the total acreage loss of waters of United States due to the NWP 39 and 46 activities cannot exceed 1 acre.

29. Transfer of Nationwide Permit Verifications. If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature:

“When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.”

_____________________________________________
(Transferee)

_____________________________________________
(Date)

30. Compliance Certification. Each permittee who receives an NWP verification letter from the Corps must provide a signed certification documenting completion of the authorized activity and implementation of any required compensatory mitigation. The success of any required permittee-responsible mitigation, including the achievement of ecological performance standards, will be addressed separately by the district engineer. The Corps will provide the permittee the certification document with the NWP verification letter. The certification document will include:

(a) A statement that the authorized activity was done in accordance with the NWP authorization, including any general, regional, or activity-specific conditions;
(b) A statement that the implementation of any required compensatory mitigation was completed in accordance with the permit conditions. If credits from a mitigation bank or in-lieu fee program are used to satisfy the compensatory mitigation requirements, the certification must include the documentation required by 33 CFR 332.3(l)(3) to confirm that the permittee secured the appropriate number and resource type of credits; and

(c) The signature of the permittee certifying the completion of the activity and mitigation.

The completed certification document must be submitted to the district engineer within 30 days of completion of the authorized activity or the implementation of any required compensatory mitigation, whichever occurs later.

31. Activities Affecting Structures or Works Built by the United States. If an NWP activity also requires review by, or permission from, the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers (USACE) federally authorized Civil Works project (a “USACE project”), the prospective permittee must submit a pre-construction notification. See paragraph (b)(10) of general condition 32. An activity that requires section 408 permission and/or review is not authorized by an NWP until the appropriate Corps office issues the section 408 permission or completes its review to alter, occupy, or use the USACE project, and the district engineer issues a written NWP verification.

32. Pre-Construction Notification.
(a) Timing. Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, if the PCN is determined to be incomplete, notify the prospective permittee within that 30 day period to request the additional information necessary to make the PCN complete. The request must specify the information needed to make the PCN complete. As a general rule, district engineers will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either:

(1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or

(2) 45 calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 18 that listed species or critical habitat might be affected or are in the vicinity of the activity, or to notify the Corps pursuant to general condition 20 that the activity might have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that there is “no effect” on listed species or “no potential to cause effects” on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)) has been completed. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee may not begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee’s right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) Contents of Pre-Construction Notification: The PCN must be in writing and include the following information:

(1) Name, address and telephone numbers of the prospective permittee;
(2) Location of the proposed activity;

(3) Identify the specific NWP or NWP(s) the prospective permittee wants to use to authorize the proposed activity;

(4) (i) A description of the proposed activity; the activity's purpose; direct and indirect adverse environmental effects the activity would cause, including the anticipated amount of loss of wetlands, other special aquatic sites, and other waters expected to result from the NWP activity, in acres, linear feet, or other appropriate unit of measure; a description of any proposed mitigation measures intended to reduce the adverse environmental effects caused by the proposed activity; and any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings for linear projects that require Department of the Army authorization but do not require pre-construction notification. The description of the proposed activity and any proposed mitigation measures should be sufficiently detailed to allow the district engineer to determine that the adverse environmental effects of the activity will be no more than minimal and to determine the need for compensatory mitigation or other mitigation measures.

(ii) For linear projects where one or more single and complete crossings require pre-construction notification, the PCN must include the quantity of anticipated losses of wetlands, other special aquatic sites, and other waters for each single and complete crossing of those wetlands, other special aquatic sites, and other waters (including those single and complete crossings authorized by an NWP but do not require PCNs). This information will be used by the district engineer to evaluate the cumulative adverse environmental effects of the proposed linear project, and does not change those non-PCN NWP activities into NWP PCNs.

(iii) Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the activity and when provided results in a quicker decision. Sketches should contain sufficient detail to provide an illustrative description of the proposed activity (e.g., a conceptual plan), but do not need to be detailed engineering plans);

(5) The PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial and intermittent streams, on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters on the project site, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many wetlands, other special aquatic sites, and other waters. Furthermore, the 45-day period will not start until the delineation has been submitted to or completed by the Corps, as appropriate;

(6) If the proposed activity will result in the loss of greater than 1/10-acre of wetlands or 3/100-acre of stream bed and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied, or explaining why the adverse environmental effects are no more than minimal and why compensatory mitigation should not be required. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

(7) For non-federal permittees, if any listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation) might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat (or critical habitat proposed for such designation), the PCN must include the name(s) of those endangered or threatened species (or species proposed for listing) that might be affected by the proposed activity or utilize the designated critical habitat (or critical habitat proposed for such designation) that might be affected by the proposed activity. For NWP activities that require pre-construction notification, Federal permittees must provide documentation demonstrating compliance with the Endangered Species Act;
(8) For non-federal permittees, if the NWP activity might have the potential to cause effects to a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, the PCN must state which historic property might have the potential to be affected by the proposed activity or include a vicinity map indicating the location of the historic property. For NWP activities that require pre-construction notification, Federal permittees must provide documentation demonstrating compliance with section 106 of the National Historic Preservation Act;

(9) For an activity that will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a “study river” for possible inclusion in the system while the river is in an official study status, the PCN must identify the Wild and Scenic River or the “study river” (see general condition 16); and

(10) For an NWP activity that requires permission from, or review by, the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers federally authorized civil works project, the pre-construction notification must include a statement confirming that the project proponent has submitted a written request for section 408 permission from, or review by, the Corps office having jurisdiction over that USACE project.

(c) Form of Pre-Construction Notification: The nationwide permit pre-construction notification form (Form ENG 6082) should be used for NWP PCNs. A letter containing the required information may also be used. Applicants may provide electronic files of PCNs and supporting materials if the district engineer has established tools and procedures for electronic submittals.

(d) Agency Coordination:
(1) The district engineer will consider any comments from Federal and state agencies concerning the proposed activity’s compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the activity’s adverse environmental effects so that they are no more than minimal.

(2) Agency coordination is required for: (i) all NWP activities that require pre-construction notification and result in the loss of greater than 1/2-acre of waters of the United States; (ii) NWP 13 activities in excess of 500 linear feet, fills greater than one cubic yard per running foot, or involve discharges of dredged or fill material into special aquatic sites; and (iii) NWP 54 activities in excess of 500 linear feet, or that extend into the waterbody more than 30 feet from the mean low water line in tidal waters or the ordinary high water mark in the Great Lakes.

(3) When agency coordination is required, the district engineer will immediately provide (e.g., via e-mail, facsimile transmission, overnight mail, or other expeditious manner) a copy of the complete PCN to the appropriate Federal or state offices (FWS, state natural resource or water quality agency, EPA, and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will have 10 calendar days from the date the material is transmitted to notify the district engineer via telephone, facsimile transmission, or e-mail that they intend to provide substantive, site-specific comments. The comments must explain why the agency believes the adverse environmental effects will be more than minimal. If so contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the pre-construction notification. The district engineer will fully consider agency comments received within the specified time frame concerning the proposed activity’s compliance with the terms and conditions of the NWPs, including the need for mitigation to ensure that the net adverse environmental effects of the proposed activity are no more than minimal. The district engineer will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each pre-construction notification that the resource agencies’ concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.
(4) In cases where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.

(5) Applicants are encouraged to provide the Corps with either electronic files or multiple copies of pre-construction notifications to expedite agency coordination.

D. DISTRICT ENGINEER’S DECISION

1. In reviewing the PCN for the proposed activity, the district engineer will determine whether the activity authorized by the NWP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. If a project proponent requests authorization by a specific NWP, the district engineer should issue the NWP verification for that activity if it meets the terms and conditions of that NWP, unless he or she determines, after considering mitigation, that the proposed activity will result in more than minimal individual and cumulative adverse effects on the aquatic environment and other aspects of the public interest and exercises discretionary authority to require an individual permit for the proposed activity. For a linear project, this determination will include an evaluation of the single and complete crossings of waters of the United States that require PCNs to determine whether they individually satisfy the terms and conditions of the NWP(s), as well as the cumulative effects caused by all of the crossings of waters of the United States authorized by an NWP. If an applicant requests a waiver of an applicable limit, as provided for in NWPs 13, 36, or 54, the district engineer will only grant the waiver upon a written determination that the NWP activity will result in only minimal individual and cumulative adverse environmental effects.

2. When making minimal adverse environmental effects determinations the district engineer will consider the direct and indirect effects caused by the NWP activity. He or she will also consider the cumulative adverse environmental effects caused by activities authorized by an NWP and whether those cumulative adverse environmental effects are no more than minimal. The district engineer will also consider site specific factors, such as the environmental setting in the vicinity of the NWP activity, the type of resource that will be affected by the NWP activity, the functions provided by the aquatic resources that will be affected by the NWP activity, the degree or magnitude to which the aquatic resources perform those functions, the extent that aquatic resource functions will be lost as a result of the NWP activity (e.g., partial or complete loss), the duration of the adverse effects (temporary or permanent), the importance of the aquatic resource functions to the region (e.g., watershed or ecoregion), and mitigation required by the district engineer. If an appropriate functional or condition assessment method is available and practicable to use, that assessment method may be used by the district engineer to assist in the minimal adverse environmental effects determination. The district engineer may add case-specific special conditions to the NWP authorization to address site-specific environmental concerns.

3. If the proposed activity requires a PCN and will result in a loss of greater than 1/10-acre of wetlands or 3/100-acre of stream bed, the prospective permittee should submit a mitigation proposal with the PCN. Applicants may also propose compensatory mitigation for NWP activities with smaller impacts, or for impacts to other types of waters. The district engineer will consider any proposed compensatory mitigation or other mitigation measures the applicant has included in the proposal in determining whether the net adverse environmental effects of the proposed activity are no more than minimal. The compensatory mitigation proposal may be either conceptual or detailed. If the district engineer determines that the activity complies with the terms and conditions of the NWP and that the adverse environmental effects are no more than minimal, after considering mitigation, the district engineer will notify the permittee and include any activity-specific conditions in the NWP verification the district engineer deems necessary. Conditions for compensatory mitigation requirements must comply with the appropriate provisions at 33 CFR 332.3(k). The district engineer must approve the final mitigation plan before the permittee commences work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation. If the prospective permittee elects to submit a compensatory mitigation plan with the PCN, the district engineer will expeditiously review the proposed compensatory mitigation plan. The district engineer must
review the proposed compensatory mitigation plan within 45 calendar days of receiving a complete PCN and determine whether the proposed mitigation would ensure that the NWP activity results in no more than minimal adverse environmental effects. If the net adverse environmental effects of the NWP activity (after consideration of the mitigation proposal) are determined by the district engineer to be no more than minimal, the district engineer will provide a timely written response to the applicant. The response will state that the NWP activity can proceed under the terms and conditions of the NWP, including any activity-specific conditions added to the NWP authorization by the district engineer.

4. If the district engineer determines that the adverse environmental effects of the proposed activity are more than minimal, then the district engineer will notify the applicant either: (a) that the activity does not qualify for authorization under the NWP and instruct the applicant on the procedures to seek authorization under an individual permit; (b) that the activity is authorized under the NWP subject to the applicant’s submission of a mitigation plan that would reduce the adverse environmental effects so that they are no more than minimal; or (c) that the activity is authorized under the NWP with specific modifications or conditions. Where the district engineer determines that mitigation is required to ensure no more than minimal adverse environmental effects, the activity will be authorized within the 45-day PCN period (unless additional time is required to comply with general conditions 18, 20, and/or 31), with activity-specific conditions that state the mitigation requirements. The authorization will include the necessary conceptual or detailed mitigation plan or a requirement that the applicant submit a mitigation plan that would reduce the adverse environmental effects so that they are no more than minimal. When compensatory mitigation is required, no work in waters of the United States may occur until the district engineer has approved a specific mitigation plan or has determined that prior approval of a final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation.

E. FURTHER INFORMATION

1. District engineers have authority to determine if an activity complies with the terms and conditions of an NWP.

2. NWPs do not obviate the need to obtain other federal, state, or local permits, approvals, or authorizations required by law.

3. NWPs do not grant any property rights or exclusive privileges.

4. NWPs do not authorize any injury to the property or rights of others.

5. NWPs do not authorize interference with any existing or proposed Federal project (see general condition 31).

F. DEFINITIONS

Best management practices (BMPs): Policies, practices, procedures, or structures implemented to mitigate the adverse environmental effects on surface water quality resulting from development. BMPs are categorized as structural or non-structural.

Compensatory mitigation: The restoration (re-establishment or rehabilitation), establishment (creation), enhancement, and/or in certain circumstances preservation of aquatic resources for the purposes of offsetting unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.

Currently serviceable: Useable as is or with some maintenance, but not so degraded as to essentially require reconstruction.

Direct effects: Effects that are caused by the activity and occur at the same time and place.
Discharge: The term “discharge” means any discharge of dredged or fill material into waters of the United States.

Ecological reference: A model used to plan and design an aquatic habitat and riparian area restoration, enhancement, or establishment activity under NWP 27. An ecological reference may be based on the structure, functions, and dynamics of an aquatic habitat type or a riparian area type that currently exists in the region where the proposed NWP 27 activity is located. Alternatively, an ecological reference may be based on a conceptual model for the aquatic habitat type or riparian area type to be restored, enhanced, or established as a result of the proposed NWP 27 activity. An ecological reference takes into account the range of variation of the aquatic habitat type or riparian area type in the region.

Enhancement: The manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

Establishment (creation): The manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist at an upland site. Establishment results in a gain in aquatic resource area.

High Tide Line: The line of intersection of the land with the water’s surface at the maximum height reached by a rising tide. The high tide line may be determined, in the absence of actual data, by a line of oil or scum along shore objects, a more or less continuous deposit of fine shell or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gages, or other suitable means that delineate the general height reached by a rising tide. The line encompasses spring high tides and other high tides that occur with periodic frequency but does not include storm surges in which there is a departure from the normal or predicted reach of the tide due to the piling up of water against a coast by strong winds such as those accompanying a hurricane or other intense storm.

Historic Property: Any prehistoric or historic district, site (including archaeological site), building, structure, or other object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria (36 CFR part 60).

Independent utility: A test to determine what constitutes a single and complete non-linear project in the Corps Regulatory Program. A project is considered to have independent utility if it would be constructed absent the construction of other projects in the project area. Portions of a multi-phase project that depend upon other phases of the project do not have independent utility. Phases of a project that would be constructed even if the other phases were not built can be considered as separate single and complete projects with independent utility.

Indirect effects: Effects that are caused by the activity and are later in time or farther removed in distance, but are still reasonably foreseeable.

Loss of waters of the United States: Waters of the United States that are permanently adversely affected by filling, flooding, excavation, or drainage because of the regulated activity. The loss of stream bed includes the acres of stream bed that are permanently adversely affected by filling or excavation because of the regulated activity. Permanent adverse effects include permanent discharges of dredged or fill material that change an aquatic area to dry land, increase the bottom elevation of a waterbody, or change the use of a waterbody. The acreage of loss of waters of the United States is a threshold measurement of the impact to jurisdictional waters or wetlands for determining whether a project may qualify for an NWP; it is not a net threshold that is calculated after considering compensatory mitigation that may be used to offset losses of aquatic functions and services. Waters of the United States temporarily filled, flooded, excavated, or drained, but restored to pre-construction contours and
elevations after construction, are not included in the measurement of loss of waters of the United States. Impacts resulting from activities that do not require Department of the Army authorization, such as activities eligible for exemptions under section 404(f) of the Clean Water Act, are not considered when calculating the loss of waters of the United States.

Navigable waters: Waters subject to section 10 of the Rivers and Harbors Act of 1899. These waters are defined at 33 CFR part 329.

Non-tidal wetland: A non-tidal wetland is a wetland that is not subject to the ebb and flow of tidal waters. Non-tidal wetlands contiguous to tidal waters are located landward of the high tide line (i.e., spring high tide line).

Open water: For purposes of the NWPs, an open water is any area that in a year with normal patterns of precipitation has water flowing or standing above ground to the extent that an ordinary high water mark can be determined. Aquatic vegetation within the area of flowing or standing water is either non-emergent, sparse, or absent. Vegetated shallows are considered to be open waters. Examples of “open waters” include rivers, streams, lakes, and ponds.

Ordinary High Water Mark: The term ordinary high water mark means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

Perennial stream: A perennial stream has surface water flowing continuously year-round during a typical year.

Practicable: Available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

Pre-construction notification: A request submitted by the project proponent to the Corps for confirmation that a particular activity is authorized by nationwide permit. The request may be a permit application, letter, or similar document that includes information about the proposed work and its anticipated environmental effects. Pre-construction notification may be required by the terms and conditions of a nationwide permit, or by regional conditions. A pre-construction notification may be voluntarily submitted in cases where pre-construction notification is not required and the project proponent wants confirmation that the activity is authorized by nationwide permit.

Preservation: The removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.

Re-establishment: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former aquatic resource. Re-establishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area and functions.

Rehabilitation: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area.

Restoration: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: re-establishment and rehabilitation.
Riffle and pool complex: Riffle and pool complexes are special aquatic sites under the 404(b)(1) Guidelines. Riffle and pool complexes sometimes characterize steep gradient sections of streams. Such stream sections are recognizable by their hydraulic characteristics. The rapid movement of water over a course substrate in riffles results in a rough flow, a turbulent surface, and high dissolved oxygen levels in the water. Pools are deeper areas associated with riffles. A slower stream velocity, a streaming flow, a smooth surface, and a finer substrate characterize pools.

Riparian areas: Riparian areas are lands next to streams, lakes, and estuarine-marine shorelines. Riparian areas are transitional between terrestrial and aquatic ecosystems, through which surface and subsurface hydrology connects riverine, lacustrine, estuarine, and marine waters with their adjacent wetlands, non-wetland waters, or uplands. Riparian areas provide a variety of ecological functions and services and help improve or maintain local water quality. (See general condition 23.)

Shellfish seeding: The placement of shellfish seed and/or suitable substrate to increase shellfish production. Shellfish seed consists of immature individual shellfish or individual shellfish attached to shells or shell fragments (i.e., spat on shell). Suitable substrate may consist of shellfish shells, shell fragments, or other appropriate materials placed into waters for shellfish habitat.

Single and complete linear project: A linear project is a project constructed for the purpose of getting people, goods, or services from a point of origin to a terminal point, which often involves multiple crossings of one or more waterbodies at separate and distant locations. The term "single and complete project" is defined as that portion of the total linear project proposed or accomplished by one owner/developer or partnership or other association of owners/developers that includes all crossings of a single water of the United States (i.e., a single waterbody) at a specific location. For linear projects crossing a single or multiple waterbodies several times at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization. However, individual channels in a braided stream or river, or individual arms of a large, irregularly shaped wetland or lake, etc., are not separate waterbodies, and crossings of such features cannot be considered separately.

Single and complete non-linear project: For non-linear projects, the term "single and complete project" is defined at 33 CFR 330.2(i) as the total project proposed or accomplished by one owner/developer or partnership or other association of owners/developers. A single and complete non-linear project must have independent utility (see definition of "independent utility"). Single and complete non-linear projects may not be "piecemealed" to avoid the limits in an NWP authorization.

Stormwater management: Stormwater management is the mechanism for controlling stormwater runoff for the purposes of reducing downstream erosion, water quality degradation, and flooding and mitigating the adverse effects of changes in land use on the aquatic environment.

Stormwater management facilities: Stormwater management facilities are those facilities, including but not limited to, stormwater retention and detention ponds and best management practices, which retain water for a period of time to control runoff and/or improve the quality (i.e., by reducing the concentration of nutrients, sediments, hazardous substances and other pollutants) of stormwater runoff.

Stream bed: The substrate of the stream channel between the ordinary high water marks. The substrate may be bedrock or inorganic particles that range in size from clay to boulders. Wetlands contiguous to the stream bed, but outside of the ordinary high water marks, are not considered part of the stream bed.

Stream channelization: The manipulation of a stream's course, condition, capacity, or location that causes more than minimal interruption of normal stream processes. A channelized jurisdictional stream remains a water of the United States.

Structure: An object that is arranged in a definite pattern of organization. Examples of structures include, without limitation, any pier, boat dock, boat ramp, wharf, dolphin, weir, boom, breakwater, bulkhead, revetment, riprap, jetty, artificial island, artificial reef, permanent mooring structure, power
transmission line, permanently moored floating vessel, piling, aid to navigation, or any other manmade obstacle or obstruction.

Tidal wetland: A tidal wetland is a jurisdictional wetland that is inundated by tidal waters. Tidal waters rise and fall in a predictable and measurable rhythm or cycle due to the gravitational pulls of the moon and sun. Tidal waters end where the rise and fall of the water surface can no longer be practically measured in a predictable rhythm due to masking by other waters, wind, or other effects. Tidal wetlands are located channelward of the high tide line.

Tribal lands: Any lands title to which is either: 1) held in trust by the United States for the benefit of any Indian tribe or individual; or 2) held by any Indian tribe or individual subject to restrictions by the United States against alienation.

Tribal rights: Those rights legally accruing to a tribe or tribes by virtue of inherent sovereign authority, unextinguished aboriginal title, treaty, statute, judicial decisions, executive order or agreement, and that give rise to legally enforceable remedies.

Vegetated shallows: Vegetated shallows are special aquatic sites under the 404(b)(1) Guidelines. They are areas that are permanently inundated and under normal circumstances have rooted aquatic vegetation, such as seagrasses in marine and estuarine systems and a variety of vascular rooted plants in freshwater systems.

Waterbody: For purposes of the NWPs, a waterbody is a “water of the United States.” If a wetland is adjacent to a waterbody determined to be a water of the United States, that waterbody and any adjacent wetlands are considered together as a single aquatic unit (see 33 CFR 328.4(c)(2)).

G. BUFFALO & NEW YORK DISTRICT GENERAL REGIONAL CONDITIONS

These conditions apply to ALL Nationwide Permits.

G-A. Construction Best Management Practices (BMP’s): Unless specifically approved otherwise through issuance of a variance by the District Engineer, the following BMP’s must be implemented to the maximum degree practicable, to minimize erosion, migration of sediments, and adverse environmental impacts. Note that at a minimum, all erosion and sediment control and stormwater management practices must be designed, installed and maintained throughout the entire construction project in accordance with the latest version of the New York Standards and Specifications for Erosion and Sediment Control and the New York State Stormwater Management Design Manual. These documents are available at: http://www.dec.ny.gov/chemical/29066.html and http://www.dec.ny.gov/chemical/29072.html, respectively.

Prior to the discharge of any dredged or fill material into waters of the United States, including wetlands, authorized by NWP, the permittee must install and maintain erosion and sedimentation controls in and/or adjacent to wetlands or other waters of the United States.

1. All synthetic erosion control features (e.g., silt fencing, netting, mats), which are intended for temporary use during construction, shall be completely removed and properly disposed of after their initial purpose has been served. Only natural fiber materials, which will degrade over time, may be abandoned in place.

2. Materials resulting from trench excavation for utility line installation or ditch reshaping activities which are temporarily sidecast or stockpiled into waters of the United States must be backfilled or removed to an upland area within 30 days of the date of deposition. Note: Upland options shall be utilized prior to temporary placement within waters of the U.S., unless it can be demonstrated that it would not be practicable or if the impacts of complying with this upland option requirement would result in more adverse impacts to the aquatic environment.

3. For trenching activities in wetlands the applicant shall install impermeable trench dams or trench breakers at the wetland boundaries and every 100 feet within wetland areas to prevent inadvertent drainage of wetlands or other waters of the United States.
4. Dry stream crossing methods (e.g., diversion, dam and pump, flume, bore) shall be utilized for culvert or other pipe, or utility installations to reduce downstream impacts from turbidity and sedimentation. This may require piping or pumping the stream flow around the work area and the use of cofferdams.

5. No in-stream work shall occur during periods of high flow, except for work that occurs in dewatered areas behind temporary diversions, cofferdams or causeways.

6. Construction access and staging areas shall be by means that avoid or minimize impacts to aquatic sites (e.g. use of upland areas for access & staging, floating barges, mats, etc.). Discharges of fill material associated with the construction of temporary access roads, staging areas and work pads in wetlands shall be placed on filter fabric. All temporary fills shall be removed upon completion of the work and the disturbed area restored to pre-construction contours, elevations and wetland conditions, including cover type. All vegetation utilized in the restoration activity shall consist of native species.

7. All return flow from dredged material disposal areas shall not result in an increase in turbidity in the receiving water body that will cause a substantial visible contrast to natural conditions. (See NWP #16)

8. For activities involving the placement of concrete into waters of the U.S., the permittee must employ watertight forms. The forms shall be dewatered prior to the placement of the concrete. The use of tremie concrete is allowed, provided that it complies with New York State water quality standards.

9. New stormwater management facilities shall be located outside of waters of the U.S. A variance of this requirement may be requested with the submission of a PCN. The PCN must include justification which demonstrates that avoidance and minimization efforts have been met.

10. To the maximum extent practicable, the placement of fill in wetlands must be designed to maintain pre-construction surface water flows/conditions between remaining on or off-site waters and to prevent draining of the wetland or permanent hydrologic alteration. This may require the use of culverts and/or other measures. Furthermore, the activity must not restrict or impede the passage of normal or expected high flows (unless the primary purpose of the fill is to impound waters). The activity may alter the pre-construction flows/conditions if it can be shown that it benefits the aquatic environment (i.e. wetland restoration and/or enhancement).

11. Stone aprons and scour protection placed in streams shall not extend higher than the stream bed in order to create a uniform grade and shall be filled with native stream bed material and supplemented with similarly sized material, if needed, to fill interstitial spaces to maintain water flow on the surface of the stream bed.

G-B. CULVERTS

1. **ALL NEW OR REPLACEMENT CULVERTS IN STREAMS**. to the extent they are regulated, shall be constructed/installed in accordance with the following, in order to ensure compliance with NWP General Condition #2 – Aquatic Life Movement and #9 – Management of Water Flows:

   a. Size: Bank-full flows shall be accommodated through maintenance of the existing bank-full channel cross sectional dimensions within a single culvert. Bank-full width is generally considered to be the top width at the stage where a stream begins to overtop its banks and spread into the floodplain. A bottomless culvert or bridge must be used to span the stream channel where practicable. If the stream cannot be spanned, the culvert width shall be minimum of 1.25 times width of the stream channel at the ordinary high water, which is generally equivalent to the width of the channel during the 2-year design storm.

   b. Depth: To maintain low flow and aquatic life movement within culverts with a bottom, the culvert invert, including end sections, must be embedded. Specifically, the culvert must be installed with its
bottom buried below the grade of the stream bed, as measured at the average low point, to a depth of a minimum of 20 percent of the culvert vertical rise (height) throughout the length of the culvert. (Note: When not practicable to do so due to small culvert size, it is acceptable to allow natural deposition to cover the interior of the culvert bed following placement of the culvert invert to the 20% depth.)

c. The dimension, pattern, and profile of the stream above and below the stream crossing shall not be permanently modified by changing the width or depth of the stream channel.

d. The culvert bed slope shall remain consistent with the slope of the adjacent stream channel.

Note 1: Use of the requirements alone will not satisfy the need for proper engineering and design. In particular, appropriate engineering is required to ensure structures are sized and designed to provide adequate capacity (to pass various flood flows) and stability (bed, bed forms, footings and abutments, both upstream and downstream). It is the permittee’s responsibility to ensure the structure is appropriately designed.

Note 2: This condition does not apply to temporary culverts used for construction access that are in place for less than one construction season. However, compliance with General Conditions #2 and #9 still applies.


Preconstruction Notification (PCN) Requirements:
A PCN is required for projects that do not meet all of the above requirements. In addition to the PCN requirements of General Condition #32, the PCN must include the following information:

i. A statement indicating which of the above requirements will not be met by the proposed project;

ii. Information as to why the use of such structures or measures would not be practicable;

iii. A brief description of the stream discussing:

- Site specific information (i.e. stream bed slope, type and size of stream bed material, stream type, existing natural or manmade barriers, etc.) assessed to determine appropriate culvert design and to ensure management of water flows and aquatic life movement.
Buffalo & New York Districts Final Regional Conditions, Water Quality Certification and Coastal Zone Concurrence for the 2021 Nationwide Permits for New York State Effective February 25, 2022 - Expiration March 14, 2026

- Evaluation of the replacement for its impacts on: downstream flooding, upstream and downstream habitat (in-stream habitat, wetlands), potential for erosion and headcutting, and stream stability.

- Flow/storm event the proposed culvert is designed to pass (2 year, 50 year, etc.)

iv. Cross sections of the stream used to calculate the stream bed low point and ordinary high water width, consisting of:

- Stream channel cross sections shall be taken at proximal locations to the crossing location to determine the average of the lowest points in elevation of the stream bed and the average width at ordinary high water.
  - For new crossing locations, the average values from at least three measurements (project location and straight sections of the stream upstream and downstream) shall be used.
  - For replacement of an existing structure, the average values from at least two cross sections (straight sections of the stream upstream and downstream from the existing structure representative of the natural channel) shall be used. Note: sections should not be taken in the immediate vicinity of the structure as the channel width may be affected by the structure and not provide an accurate representation of the natural channel.

- This average low point shall be used to ensure low flow is maintained through the culvert and from which all embedment depths are measured.

- If the above cross section method was not practicable to use, an alternative method may be utilized. The PCN shall include justification for the method used including the data used and an explanation as to how it provides an equivalent measure.

v. An evaluation of the effects the crossing would have on aquatic life movement and/or water flows; and

vi. Mitigation measures that will be employed to minimize these effects. Mitigation measures may include, but are not limited to baffles, weirs, roughened channels, and grade control structures

A variance of the requirement(s) will be issued by the Corps if it can be demonstrated that the proposal would meet General Conditions #2 & #9 and would result in a less environmentally damaging practicable alternative (e.g. If compliance with any of the requirement(s) would result in detrimental impacts to the aquatic system then an alternate design should be proposed and a variance request submitted which outlines how compliance with the general conditions will be met.).

2. ALL CULVERT REHABILITATION PROJECTS IN STREAMS, to the extent they are regulated, not including culvert replacement projects (See 1 above), shall be constructed in accordance with the following, in order to ensure compliance with NWP General Condition #2 – Aquatic Life Movement and #9 – Management of Water Flows:

a. An evaluation of the existing culvert shall be conducted prior to the proposed culvert rehabilitation to determine if the existing culvert is in compliance with NWP GC #2 and #9. Specifically, the culvert shall be evaluated regarding its effect upon aquatic life movements and low/ high water flow. If the above requirements in General Regional Condition B. 1 (a)-(e) are met, then the culvert is considered in compliance with NWP General Conditions #2 & # 9. (Potential evaluation methods to consider include: North Atlantic Aquatic Connectivity Collaborative (NAACC) (Note: Projects should not result in a reduction of the NAACC passability score by reducing passage or creating a barrier), US Forest Service Aquatic Organism Passage FishXing, etc.)
b. A PCN is not required for projects that utilize cured-in-place pipe lining or other repair activities that do not raise the existing invert elevation such that it causes an impediment to the passage of either aquatic life movement or water flow, unless there is an existing impediment which will not be corrected by the proposed repair.

c. A PCN is required for any culvert rehabilitation project that includes a culvert which is not in compliance with GC #2 and/or #9 (i.e. impedes aquatic life movement or water flow) and which will not be corrected by the proposed repair.

d. A PCN is required for culvert rehabilitation projects which will involve pipe slip lining or other activities, including concrete invert paving and concrete lining that raise the existing invert elevation such that it causes an impediment to the passage of low flow or aquatic life movement. Slip lining is defined as the insertion of a smaller diameter pipe into an existing pipe by pulling, pushing, or spiral winding.

Preconstruction Notification (PCN) Requirements:
In addition to the PCN requirements of General Condition #32, the PCN must include the following information:

i. A summary of the evaluation required in Item a. above including average ordinary high water channel width and a discussion of the impediment(s) to aquatic life movement and/or water flow.

ii. Information as to how the proposal will mitigate for the impediment. Mitigation measures may include, but are not limited to baffles, weirs, roughened channels, and grade control structures.

G-C. No regulated activity authorized by a Nationwide Permit can cause the loss of areas classified as a bog or fen in the State of New York, as determined by the Buffalo or the New York District Corps of Engineers, due to the scarcity of this habitat in New York State and the difficulty with in-kind mitigation. The Districts will utilize the following document in the classification:


G-D. National Wild and Scenic Rivers (NWSR): The Upper Delaware River has been designated as a National Wild and Scenic River from the confluence of the East and West Branches below Hancock, New York, to the existing railroad bridge immediately downstream of Cherry Island in the vicinity of Sparrow Bush, New York. Also, the portion of the Genesee River located within Letchworth Gorge State Park, beginning at the southern boundary of the park and extending downstream to the Mt. Morris Dam, was designated by Congress as a permanent Study River in the Genesee River Protection Act of 1989. In accordance with General Condition #16, no activity may occur within a NWSR, including Study Rivers, unless the National Park Service (NPS) has determined in writing that the proposed work will not adversely affect the NWSR designation or study status. Therefore, a PCN is required for any NWP which would impact the designated portions of the Genesee River or the Upper Delaware River, unless NPS has previously indicated the project will not adversely affect the waterway. (Note: the applicant may not commence work under any NWP until the NPS determines in writing that the project will not adversely affect the NWSR even if 45-days have passed since receipt of the PCN package.) Information regarding NWSR may be found at: https://www.rivers.gov/new-york.php

G-E. For all proposals requiring a pre-construction notification (PCN), in addition to the requirements in General Condition 32, the applicant shall also include: (Note: the application will not be considered complete until all of the applicable information is received).
1. **New York State/USACE Joint Application Form:** The application form shall be completed and signed and shall clearly indicate that the submission is a PCN. Buffalo District: [http://www.lrb.usace.army.mil/Missions/Regulatory/Application-Forms/](http://www.lrb.usace.army.mil/Missions/Regulatory/Application-Forms/) New York District: [https://www.nan.usace.army.mil/Missions/Regulatory/Obtaining-a-Permit/](https://www.nan.usace.army.mil/Missions/Regulatory/Obtaining-a-Permit/)

2. **Drawings:** The PCN must include legible, project drawings on 8.5" x 11" paper. Full size drawings may be submitted in addition to the 8.5" x 11" plans to aid in the application review. Three types of illustrations are needed to properly depict the work to be undertaken. These illustrations or drawings are a Vicinity Map (i.e. a location map such as a USGS topographical map), a Plan View and a Cross-Section Map. Each illustration should identify the project, the applicant, and the type of illustration (vicinity map, plan view or cross section). The Vicinity Map shall provide the location of the entire project site. In addition, each illustration should be identified with a figure or attachment number. The location map shall include the Latitude and Longitude or UTM coordinates of the project. For linear projects, the PCN shall include a map of the entire project including a delineation of all waters of the U.S. within the corridor. Aquatic resource information shall be submitted using the Cowardin Classification System mapping conventions (e.g. PFO, PEM, etc.).

3. **Color photographs:** The photos should be sufficient to accurately portray the project site, keyed to a location map and not taken when snow cover is present.

4. **Avoidance and Minimization:** The PCN should include a written narrative explaining how avoidance and minimization of temporary impacts and permanent losses of waters of the U.S. were achieved on the project site (i.e. site redesign, reduction in scope, alternate methods, etc.). It should include a description of the proposed construction practices that would be implemented to perform the proposed work and a description of the reasonably foreseeable direct and indirect effects to waters of the U.S. from the proposed construction practices.

5. **Mitigation** (See General Conditions 23 & 32(b)(6)): The PCN should include at least a conceptual compensatory mitigation plan for all projects resulting in the loss of greater than 1/10th of an acre of wetlands and/or 3/100th of an acre of stream. Mitigation conceptual plans submitted with the PCN must include the following information at a minimum: proposed compensation type (bank or in-lieu fee credit, restoration, creation, preservation, etc.), location and brief discussion on factors considered for site selection (i.e. soils, water source, potential for invasive species, etc.), amount proposed per resource type and a discussion of how the proposal will compensate for aquatic resource functions and services lost as a result of the project.


   **Note 2:** Although a conceptual mitigation plan may be sufficient for the purposes of a PCN submission, a detailed mitigation plan must be approved by the Corps before any jurisdictional work may occur on the project site.

   **Note 3:** If more than 0.10 acres of designated EFH habitat (as discussed in Section G-E.8. below) would be impacted such that habitat would be lost, compensatory mitigation at a minimum ratio of 1:1 is required. A ratio of more than 1:1 may be required depending upon the ecological value of the habitat to be lost or degraded and the form of compensatory mitigation proposed to be provided.

   **Note 4:** For additional information regarding natural stream channel design, please refer to [https://www.epa.gov/cwa-404/natural-stream-channel-design-techniques-and-review](https://www.epa.gov/cwa-404/natural-stream-channel-design-techniques-and-review) for the Natural Stream Channel Design Techniques and Review Checklist as developed by U.S. EPA and U.S. Fish and Wildlife Service.

6. **Nationwide Rivers Inventory:** The PCN shall indicate if a river segment listed within the National
Park Service Nationwide Rivers Inventory (NRI) is located within the proposed project area. NRI river segments are potential candidates for inclusion in the National Wild and Scenic River System (See General Condition #16). For project areas containing a listed NRI segment, the PCN shall also include a statement as to how adverse effects to the river have been avoided or mitigated. The list is available at: http://www.nps.gov/ncrc/programs/rtca/nri/states/ny.html.

7. Historic or Cultural Resources: In accordance with General Condition 20, a PCN is required for any non-federal activity which may have the potential to cause effects to any historic properties* listed, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places (NR). Please refer to General Condition 20 for submission requirements. In addition, all PCNs should include:

   a) A written statement indicating if any such properties may be affected by the proposed project.
   b) A copy of any completed archaeology or building/structure survey reports. If a survey has not been performed, the statement shall include a list of resources checked in the determination.
   c) Copies of any available correspondence from the New York State Office of Parks, Recreation, and Historic Preservation State Historic Preservation Officer (SHPO) regarding historic properties.
   d) Copies of any available correspondence from federally recognized Indian Nations regarding historic properties that may be affected by the project.
   e) Projects with ground disturbance may have the potential to cause effects to buried historic properties, regardless of occurring outside SHPO designated archaeological sensitive areas. Therefore, the PCN shall indicate if the ground disturbance will occur in any areas of previously undisturbed soil. For areas with prior disturbance, the PCN shall include a brief narrative describing the disturbance and its limit (i.e. type of disturbance, size of area with current undisturbed soil, size of area with existing disturbed soils, when the disturbance occurred, an estimate on how deep the soil disturbance extends, etc.) as well as photos of the existing ground disturbance.
   f) Above ground buildings/structures that are over 50 years old and potentially affected by the project will need to be assessed to determine if they are eligible for the NR. The PCN shall:

* - see NWP definition section for further clarification

Note 1: Information regarding historic properties may be found at: https://cris.parks.ny.gov. In addition, assistance regarding the determination of the presence of historic or cultural resources at or near the project site should be directed to SHPO.

Note 2: As stated in General Condition 20, if any listed, eligible or potentially eligible properties are present, the applicant shall not begin the activity until notified by the district engineer in writing either that the activity has no potential to cause effects or that consultation under Section 106 of the NHPA has been completed.

8. Endangered Species and Essential Fish Habitat (EFH): In accordance with General Condition #18, non-federal applicants must submit a PCN if any listed species or designated critical habitat might be affected or is in the vicinity of the activity (See Note 2 below), or if the activity is located in designated critical habitat. Please refer to General Condition #18 for submission requirements. In addition, all PCNs must include:

   1. a written statement and documentation concerning any Essential Fish Habitat (EFH) and any federally listed or proposed Threatened or Endangered (T&E) species or designated and/or proposed critical habitat that might be affected or located in the vicinity of the project (See Note 2 below).
2. an official T&E species list printed within 90 days of the PCN submission, and a copy of any correspondence from the U.S. Fish and Wildlife Service (USFWS) and/or National Oceanic and Atmospheric Administration Fisheries Service (NOAA-Fisheries), regarding the potential presence of T&E species on the project site. An applicant should use the USFWS Information for Planning and Consultation (iPAC) website (https://ecos.fws.gov/ipac) as the primary resource to determine if there may be listed Threatened or Endangered species. Information on NOAA-Fisheries (NMFS) species (both T&E and EFH) can be found at: https://www.greateratlantic.fisheries.noaa.gov/. Region-specific information on NMFS species (both T&E and EFH) can be found at: https://www.fisheries.noaa.gov/new-england-mid-atlantic/habitat-conservation/essential-fish-habitat-consultations-greater-atlantic-region. Region-specific ESA information can be found at: https://www.fisheries.noaa.gov/topic/consultations#endangered-species-act-consultations.

3. For projects where T&E species are listed, a discussion of potential T&E species habitat within the project site (See USFWS T&E website for species habitat information). https://www.fws.gov/northeast/nyfo/es/section7.htm

4. If there is potential habitat for any T&E species within the project site the following, as applicable, shall be submitted:
   
i. The results of any habitat surveys and presence/absence surveys. Note: all surveys should be coordinated with the USFWS and/or NOAA-Fisheries (NMFS) prior to initiation.

   ii. A detailed description of the proposed project, including secondary impacts and approximate proposed project construction schedule of project activities (e.g. land clearing, utilities, stormwater management).

   iii. A description of the natural characteristics of the property and surrounding area (e.g. forested areas, freshwater wetlands, open waters, and soils) and a description of surrounding land use (residential, agricultural, or commercial).

   iv. A description of the area to be impacted by the proposed project (including the species, typical sizes (d.b.h.) and number or acres of trees to be removed, substrate of stream, etc.).

   v. The location of the above referenced property and extent of any project related activities or discharges clearly indicated on a copy of a USGS 7.5-minute topographic quadrangle (quad) with the name of the quad(s) and latitude/longitude clearly labeled.

   vi. A description of conservation measures to avoid, minimize and/or mitigate impacts to listed species.

Note 1: There are no known T&E species or EFH species under the jurisdiction of the NOAA-Fisheries (NMFS) within the Buffalo District. Therefore, all Buffalo District requests for information regarding the presence of T&E species should be directed to the USFWS. In addition, no EFH review is necessary within the following New York District counties: Clinton, Essex, Franklin, Fulton, Hamilton, Montgomery, Otsego, Schenectady, Schoharie and Warren.

Note 2: Please refer to the following websites for further guidance and information relating to regulatory permits & T&E species in New York, including protocols for defining ‘vicinity’ for the Indiana and Northern long-eared bats:

Note 3: General Condition #18 is emphasized, … “For activities where the non-Federal applicant has identified listed species or critical habitat that might be affected or is in the vicinity of the activity, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification that the proposed activity will have “no effect” on listed species or critical habitat, or until ESA section 7 consultation has been completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.”

Note 4: Where a PCN is required for Essential Fish Habitat consultation, refer to the following links for the Essential Fish Habitat Assessment Worksheet and Mapper utilized to inform the preparation of the worksheet:

- EFH Mapper: https://www.habitat.noaa.gov/protection/efh/efhmapper/

Note 5: Where information is required for submerged aquatic vegetation (SAV) in the permit area or within 50 feet of the proposed work, please utilize the following map data:

- NYS Department of State SAV data: http://opdgig.dos.ny.gov/#/search/SAV

9. PCNs should be submitted electronically, if possible, in accordance with the instructions provided on the Districts’ websites. When submitted by hard copy, without an electronic submission, then multiple copies of the PCN must be provided as follows:

a) One (1) additional copy of the PCN package shall be provided to USACE for coordination with Department of Defense Siting Clearinghouse (See NWP # 39, 51, 52 & 57 Notes) for:
   i. overhead utility lines proposed under NWP #57 and
   ii. any activity that involves the construction of a wind energy generating structure, solar tower, or overhead transmission lines proposed under NWP #39, 51 or 52

b) Two (2) additional copies of the PCN package shall be provided to USACE when the project is located within the New York City Watershed, for coordination with the New York City Department of Environmental Protection.

c) Five (5) additional copies of the PCN package shall be submitted to USACE for agency coordination in accordance with General Condition # 32(d)(2) for:
   i. All NWP activities that result in the loss of greater than 1/2-acre of waters of the United States,
   ii. NWP 13 activities in excess of 500 linear feet, fills greater than one cubic yard per running foot, or involve discharges of dredged or fill material into special aquatic sites;
   iii. NWP 54 activities in excess of 500 linear feet or that extend into the waterbody more than 30 feet from the mean low water line in tidal waters or the ordinary high water mark in the Great Lakes.

G-F. CRITICAL RESOURCE WATERS

In accordance with NWP General Condition (GC) #22, certain activities in Critical Resource Waters cannot be authorized under the NWP program or would require a PCN (see GC #22 for a list of the
NWP activities that are either excluded or require a PCN).

Critical Resource Waters in New York State include the following:

1. **East-of-Hudson portion of the New York City Water Supply**: This area includes portions of Dutchess, Putnam and Westchester Counties as delineated on Enclosure 2.


**H. NYSDEC GENERAL WATER QUALITY CERTIFICATION (WQC) CONDITIONS APPLICABLE TO ALL NWPS FOR WHICH WQC HAS BEEN PROVIDED ARE AS FOLLOWS:**

1. **Non-contamination of Waters** - All necessary precautions shall be taken to preclude contamination of any waters of the United States by suspended solids, resins, sediments, fuels, solvents, lubricants, epoxy coatings, paints, concrete, leachate, inadvertent returns of drilling muds ("frac-outs") or any other environmentally deleterious materials associated with the project.

2. **Installation and Replacement of Culverts** - To be covered under this blanket Water Quality Certification, all the following criteria must be met for culvert installations and replacements:
   a. Culverts shall be designed to pass a storm event with an annual chance of 2% or less (i.e., 50-year storm event or greater) such that the water surface remains below the top of the inlet opening.
   b. All culverts with closed bottoms and culvert pipes must be appropriately embedded. Round culverts must be installed so that at least 20% of the culvert’s vertical height is embedded below the existing stream bed at the outlet end of the culvert.
   c. Width of the structure must be a minimum of 1.25 times (1.25X) width of the Mean High-Water Channel.
   d. The slope of the stream bed within or under the culvert shall remain consistent with the slope of the adjacent stream channel. For slopes greater than 3%, an open bottom culvert must be used.
   e. This culvert must not be located under a roadway that provide sole access to “Critical Facilities”
   f. This certification does not authorize culvert rehabilitation projects that involve slip lining, invert paving, or similar treatments.
   g. This certification does authorize the rehabilitation of culverts utilizing Cure in Place Pipe Lining (CIPP) or concrete spray lining for culverts which currently meet Nationwide Permit General Condition # 2 - Aquatic Life Movements.

2 Critical Facilities are defined as facilities designed for bulk storage of chemicals, petrochemicals, hazardous or toxic substances or floatable materials; hospitals, rest homes, correctional facilities, dormitories, patient care facilities; major power generation, transmission or substation facilities, except for hydroelectric facilities; major communications centers, such as civil defense centers; or major emergency service facilities, such as central fire and police stations. (See 6 NYCRR Part 502.4(a)(17).)

3. **Discharges and Disturbances Limits** - The following discharge and disturbance limits apply to this certification:
   a. For NWPs 5, 7, 13, 14, 15, 18, 19, 23, 25, 32, 34, 36, 37, 45, and 46, the following discharge limits apply:
      i. Temporary or permanent discharges of dredged or fill material into wetlands and other waters of the United States must not exceed ¼ acre;
      ii. Temporary or permanent impacts (i.e., loss) to stream beds, lake shorelines, and ocean shorelines must not exceed 300 linear feet; and
      iii. The discharge area limit under paragraph (a) plus the equivalent stream, lake, or ocean impact area limit under paragraph (b) must not exceed ¼ acre total.
b. For NWPs 3, 4, 6, 20, 22, 27, 30, 31, 33, and 41, this certification authorizes discharges and disturbances up to the limit of the respective Nationwide Permit or regional conditions, whichever is most restrictive.

c. If a project requiring coverage under two or more Nationwide Permits results in a temporary or permanent discharge or disturbance, the most restrictive threshold applies to the project.

4. **Bulkheads** - Activities involving bulkheads are restricted as follows:
   a. This certification does not authorize the construction of new bulkheads or vertical walls.
   b. This certification does not authorize the waterward extension of existing bulkheads, except where minimally necessary to reface the bulkhead when in-place replacement is not feasible.
   c. New toe-stone protection may not extend more than 36 inches waterward from the existing bulkhead face.

5. **Maintenance of Water Levels** - This certification does not authorize any activity that results in a permanent water level alteration in waterbodies, such as draining or impounding, except for activities authorized by NWP 27.

6. **Dewatering** - Dewatering activities must be conducted in the following manner:
   a. Authorized dewatering is limited to immediate work areas that are within coffer dams or otherwise isolated from the larger waterbody or waters of the United States.
   b. Dewatering must be localized and must not drain extensive areas of a waterbody or reduce the water level such that fish and other aquatic organisms are killed, or their eggs and nests are exposed to desiccation, freezing or predation in areas outside of the immediate work site.
   c. Cofferdams or diversions shall not be constructed in a manner that causes or exacerbates erosion of the bed or banks of a waterbody.
   d. All dewatering structures must be permanently removed, and disturbed areas must be graded and stabilized immediately following completion of work. Return flows from the dewatering structure shall be as visibly clear as the receiving waterbody.

7. **Horizontal and Directional Drilling** - For projects that involve horizontal or directional drilling, the permittee must prepare and implement a plan that addresses prevention, containment and cleanup of inadvertent drilling fluid returns or "frac-outs".

8. **Endangered or Threatened Species** - This certification does not authorize discharges likely to result in the take or taking of any species listed as endangered or threatened in 6 NYCRR Part 182.5 (a) or (b) or discharges likely to destroy or adversely modify the habitat of such listed species. To be eligible for coverage under this certification, applicants must either verify that the activity is outside of the occupied habitat of such species or, if located within the habitat of such species, obtain a determination from the NYS Department of Conservation Regional Office that the proposed activity is not likely to result in the take or taking of any species listed as endangered or threatened species listed in 6 NYCRR Part 182. Information on New York State endangered or threatened species may be obtained from the NYS Department of Environmental regional offices, the New York Natural Heritage Program in Albany, New York or on the NYSDEC website at [https://www.dec.ny.gov/animals/38801.html](https://www.dec.ny.gov/animals/38801.html).

9. **Rare Mollusks** - This certification does not authorize disturbances or discharges to waters of the United States that support mollusks listed as S-1 or S-2 on the New York State Natural Heritage database, unless NYSDEC staff have determined that the project location does not contain mussels listed as S-1 or S-2 on the Natural Heritage database.

10. **Prohibition Period for In-water Work** - In-water work is prohibited in cold water trout fisheries (waterbodies classified under Article 15 of New York State Environmental Conservation Law with a "t" or "ts" designation), beginning October 1 and ending May 31.

   Water classification values can be found on the NYSDEC’s Environmental Resource Mapper available on the Department’s website at [https://giservices.dec.ny.gov/gis/erm](https://giservices.dec.ny.gov/gis/erm). Applicants may also contact the Regional Fisheries Manager in the appropriate New York State Department of Environmental
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Conservation regional office to determine the classification of the water body and whether the prohibition period applies.

11. Significant Coastal Fish and Wildlife Habitats - This certification does not authorize any discharge occurring in a designated Significant Coastal Fish and Wildlife Habitat area pursuant to 19 NYCRR Part 602 (NYCRR, Title 19, Chapter XIII, Waterfront Revitalization of Coastal Areas and Inland Waterways). [https://www.dos.ny.gov/opd/programs/consistency/scfwhabitats.html]

12. Coastal Erosion Hazard Areas - This certification does not authorize projects that disturb greater than ¼ acre or 300 linear feet of waters of the United States within mapped Coastal Erosion Hazard Areas, as identified in New York State Environmental Conservation Law Article 34, and its implementing regulations, 6 NYCRR Part 505. [https://www.dec.ny.gov/lands/86541.html]

13. Federal Energy Regulatory Commission - This certification does not authorize activities regulated by the United States Federal Energy Regulatory Commission (FERC). An individual Section 401 Water Quality Certification from NYSDEC is required for all projects regulated by FERC.

14. Preventing the Spread of Aquatic Invasive Species - To prevent the unintentional introduction or spread of invasive species, the permittee must ensure that all construction equipment be cleaned of mud, seeds, vegetation, and other debris before entering any approved construction areas within waters of the United States. When using construction equipment, projects authorized under this Certification shall take reasonable precautions to prevent the spread of aquatic invasive species as required under the provisions in ECL § 9-1710.

15. Utility Projects - The following restrictions and conditions apply to activities involving utility projects:
   a. This certification does not authorize maintenance or other activities associated with hydroelectric power generation projects.
   b. This certification does not authorize the construction of substation facilities or permanent access roads in wetlands or within the Federal Emergency Management Agency mapped 100-year floodplain.
   c. Excess materials resulting from trench excavation must be permanently removed from the waters of the United States and contained so that they do not re-enter any waters of the United States.

16. NYSDEC Emergency Authorizations – This certification also applies to any regulated discharges to Waters of the U.S. covered under an NWP where NYSDEC makes a finding of emergency pursuant to New York States Uniform Procedures Act regulations at 6 NYCRR § 621.12. Such a finding may also, but is not required to, include NYSDEC emergency authorizations under ECL Article 15, Title 5 (Protection of Waters), Article 15, Title 27 (Wild, Scenic, and Recreational Rivers), Article 24 (Freshwater Wetlands), Article 25 (Tidal Wetlands) or Article 34 (Coastal Erosion Management). Where such certification is granted, only NYSDEC General WQC Conditions 1, 4, 5, and 6 shall apply.

17. NYSDEC General Permits – This certification also applies to any regulated discharges to Waters of the U.S. covered under an NWP where NYSDEC issues project authorization under a general permit pursuant to ECL Article 15, Title 5 (Protection of Waters), Article 15, Title 27 (Wild, Scenic, and Recreational Rivers), Article 24 (Freshwater Wetlands), Article 25 (Tidal Wetlands), or Article 34 (Coastal Erosion Management). Where such certification is granted, all other NYSDEC General WQC Conditions shall not apply.

18. NYSDEC Individual Permits – This certification also applies to any regulated discharges to Waters of the U.S. covered under an NWP where NYSDEC issues individual project authorization pursuant to ECL Article 15, Title 5 (Protection of Waters), Article 15, Title 27 (Wild, Scenic, and Recreational Rivers), Article 24 (Freshwater Wetlands), Article 25 (Tidal Wetlands), or Article 34 (Coastal Erosion Management). Where such certification is granted, all other NYSDEC General WQC Conditions shall not apply.
I. NEW YORK STATE DEPARTMENT OF STATE (NYSDOS) COASTAL ZONE MANAGEMENT CONSISTENCY DETERMINATION ADDITIONAL INFORMATION (APPLICABLE TO ALL NWPS LOCATED WITHIN OR AFFECTING THE NYS COASTAL ZONE):

Where NYSDOS has objected to the USACE consistency determination, as outlined in the specific NWP listing in Section B above, the applicant must submit a request for an individual consistency determination to NYSDOS.

Further Information:

- Unless NYSDOS issues consistency concurrence or USACE has determined that NYSDOS concurrence is presumed, NWPs are not valid within the Coastal Zone.

- All consistency concurrence determination requests must be submitted directly to NYSDOS with a copy provided to USACE with any required Preconstruction Notification submissions.

- Limits of the coastal zone and details regarding NYSDOS submission requirements, including application forms can be obtained at: https://www.dos.ny.gov/opd/programs/consistency/index.html.

- For additional information regarding the NYSDOS Coastal Zone Management program, their application forms, and requirements, please contact NYSDOS. See Section K for NYSDOS contact information.

J. INFORMATION ON NATIONWIDE PERMIT VERIFICATION

Verification of the applicability of these Nationwide Permits is valid until March 14, 2026, unless the Nationwide Permit is modified, suspended, revoked, or the activity complies with any subsequent permit modification.

It is the applicant’s responsibility to remain informed of changes to the Nationwide Permit program. A public notice announcing any changes will be issued when they occur and will be available for viewing at our website: http://www.lrb.usace.army.mil/Missions/Regulatory.aspx.

Please note in accordance with 33 CFR part 330.6(b), that if you commence or are under contract to commence an activity in reliance of the permit prior to the date this Nationwide permit expires, is suspended or revoked, or is modified such that the activity no longer complies with the terms and conditions, you have twelve months from the date of permit modification, expiration, or revocation to complete the activity under the present terms and conditions of the permit, unless the permit has been subject to the provisions of discretionary authority.

Possession of this permit does not obviate you of the need to contact all appropriate state and/or local governmental officials to ensure that the project complies with their requirements.
K. AGENCY CONTACT INFORMATION

NYS Board on Electric Generation Siting and the Environment (Siting Board)
Three Empire State Plaza
Albany, NY 12223-1350
(518) 949-0798
Email: Houtan.Moaveni@dps.ny.gov
www.dps.ny.gov/SitingBoard

NYS Department of Environmental Conservation
www.dec.ny.gov

NYS DEC REGION 1
Regional Permit Administrator
SUNY @ Stony Brook
50 Circle Road
Stony Brook, NY 11790-3409
(631) 444-0365

NYS DEC REGION 2
Regional Permit Administrator
1 Hunter's Point Plaza
47-40 21st Street
Long Island City, NY 11101-5407
(718) 482-4997

NYS DEC REGION 3
Regional Permit Administrator
21 South Putt Corners Road
New Paltz, NY 12561-1620
(845) 256-3054

NYS DEC REGION 4
Regional Permit Administrator
1130 North Westcott Road
Schenectady, NY 12306-2014
(518) 357-2069

NYS DEC REGION 4 Sub-Office
Deputy Regional Permit Administrator
65561 State Hwy 10
Stamford, NY 12167-9503
(607) 652-7741

NYS DEC REGION 5
Regional Permit Administrator
PO Box 296
1115 Route 86
Ray Brook, NY 12977-0296
(518) 897-1234

NYS DEC REGION 5 Sub-Office
Deputy Regional Permit Administrator
PO Box 220
232 Golf Course Rd
Warrensburg, NY 12885-0220
(518) 623-1281

NYS DEC REGION 6
Regional Permit Administrator
317 Washington Street
Watertown, NY 13601-3787
(315) 785-2245

NYS DEC REGION 6 Sub-Office
Deputy Regional Permit Administrator
207 Genesee Street, Room 1404
Utica, NY 13501-2885
(315) 793-2555

NYS DEC REGION 7
Regional Permit Administrator
615 Erie Blvd. West, Room 206
Syracuse, NY 13204-2400
(315)426-7438

NYS DEC REGION 8
Regional Permit Administrator
6274 E. Avon - Lima Road
Avon, NY 14414-9519
(585) 226-5400

NYS DEC REGION 9
Regional Permit Administrator
270 Michigan Avenue
Buffalo, NY 14203-2915
(716) 851-7165

NYS DEC REGION 9 Sub-Office
Deputy Regional Permit Administrator
182 East Union Street, Suite 3
Allegany, NY 14706-1328
(716) 372-0645

NYS Department of Public Service (NYS DPS)
Three Empire State Plaza
Albany, NY 12223-1350
(518) 949-0798
Email: Houtan.Moaveni@dps.ny.gov
www.dps.ny.gov
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NYS Department of State (NYSDOS)
Office of Planning, Development
And Community Infrastructure
Consistency Review Unit
One Commerce Plaza
99 Washington Avenue, Suite 1010
Albany, NY 12231-00001
(518) 474-6000
Email: cr@dos.ny.gov

NYS Office of Renewable Energy Siting (ORES)
Empire State Plaza
240 State Street
P-1 South, J Dock
Albany, NY 12242
(518) 949-0798
Email: Houtan.Moaveni@ores.ny.gov
www.ores.ny.gov

Saint Regis Mohawk Tribe
Water Resources Program
449 Frogtown Road
Akwesasne, NY 13655
www.srmt-nsn.gov

Seneca Nation
Environmental Protection Department
84 Iroquois Drive
Irving, NY 14081
(716) 532-2546

US Army Corps of Engineers
(For DEC Regions 1, 2 and 3)
US Army Corps of Engineers, NY District (NAN)
ATTN: Regulatory Branch, Room 16-406
26 Federal Plaza
New York, NY 10278-0090
For DEC Regions 1 & 2 - (917) 790-8511
For DEC Region 3 - (917) 790-8411
Email: CENAN-PublicNotice@usace.army.mil

(For DEC Regions 4, 5)
US Army Corps of Engineers, NY District (NAN)
Upstate Regulatory Field Office
ATTN: CENAN-OP-RU, Bldg. 10, 3rd Floor North
1 Buffington Street, Watervliet Arsenal
Watervliet, NY 12189-4000
(518) 266-6350 - Permits Processing Team
(518) 266-6360 - Compliance & Enforcement Team
Email: cenan.rfo@usace.army.mil

NAN Electronic Application Email:
CENAN-R-Permit-App@usace.army.mil

NAN website:
http://www.nan.usace.army.mil/Missions/Regulatory/

(For DEC Regions 6, 7, 8, 9)
US Army Corps of Engineers,
Buffalo District (LRB)
ATTN: Regulatory Branch
1776 Niagara Street
Buffalo, NY 14207-3199
(716) 879-4330

LRB Electronic Application Email:
LRB.NewYork.RegActions@usace.army.mil

LRB website:
www.lrb.usace.army.mil/Missions/Regulatory/

US Environmental Protection Agency Region 2
Wetlands Protection Section
290 Broadway, 24th Floor
New York, NY 10007
212-637-3838
Email: Region2_CWA404@epa.gov
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ENCLOSURE 1

U.S. Army Corps of Engineers Regulatory Districts in New York State

Legend

<table>
<thead>
<tr>
<th>Buffalo District</th>
<th>New York District</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NYSDEC Region Boundaries</td>
</tr>
</tbody>
</table>

ENCLOSURE 1
ENCLOSURE 3

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, NEW YORK DISTRICT
JACOB K. JAVITS FEDERAL BUILDING
26 FEDERAL PLAZA
NEW YORK NEW YORK 10278-0090

REGULATORY BRANCH
Attn: ____________________________

Commercial Mooring Buoy Application Additional Information

Permit Application Number NAN-_______________

Company Name: ________________________ Phone: __________________________
Attn: ________________________________
Address: ________________________________________________________________

Initial ☐ Renewal ☐
If Renewal, USCG Permit No. __________________________

Purpose: ________________________________

LOCATION OF MOORING:

Anchorage: _____________ Chart: _____________ On Scene Depth (ft.): ______

Position*: ________ N ________ W

MOORING BUOY DATA:

No. of anchors: ________ Lbs. per anchor: ________ Type: _________________

Chain size (in.): ________ Scope (yds.): __________

Pennant length (yds.): ________ Circ. /dia. (in.): ________ Type: _______________

VESSEL/BARGE DATA:

Max size (LxBxD): ________ x ________ x ________ Max No. of barges: ______

Configuration (# abreast x # astern): ________ x ________ Watch circle** (yds.): ________

Swing Radius (yards): ________

* Please provide a copy of the NOAA chart showing your proposed mooring buoy location and the swing radius; also identify the Anchorage Ground, if applicable.

** Watch Circle = \sqrt{(\text{length of scope})^2 - (\text{water depth})^2}

Swing Radius = \text{Watch circle} + (\text{Barge(s) length astern}) + (\text{Pendant length(s)}) + (10\% \text{ of swing radius}) You must maintain an additional 10\% of your Swing Radius from any adjacent mooring buoy Swing Radius for safety and maneuvering.
Incident Report of Sea Turtle Take
U.S. Army Corps of Engineers, New York District

Date ___________________ Time [specimen found] ___________________

Species Taken: Loggerhead Kemp’s ridley Leatherback
Green Unknown turtle Other

(please circle and describe how specimen was identified in Comments)

Animal: Alive / Dead (please circle)
Specimen Decomposition: FRESH SLIGHTLY MODERATELY SEVERELY
Approximate length ___________ Approximate width ___________

(please designate cm/m or inches)

Condition of specimen/description of animal

______________________________________________________________

Animal tagged: YES / NO (please circle and record all tag numbers)
Tag # __________________________

Photograph attached: YES / NO (please circle)
(please label species, date, geographic site and name on photo back)

Fate of animal

______________________________________________________________

Geographic Site

Location: Lat/Long
Approx. depth of gear ______________

Location where animal found (leader, anchor line, buoy line, etc.)

______________________________________________________________

Thickness and type of line (if applicable) _________________________
Mesh size and type of net (if applicable) _________________________
Debris in gear? _________________________

Weather conditions

______________________________________________________________

Water temp: Surface ___________ Below midwater (if known) ___________
Tide state (Ebb or Flood) _________________________
Entanglement on downcurrent or upcurrent side of net? ___________

Comments/other (include justification on how species was identified)

______________________________________________________________

Observer's Name ____________________ Permit # ____________________

Notwithstanding any other provision of the law, no person is required to respond to, nor shall any person by subject to a penalty for failure to comply with, a collection of information subject to the requirements of the Paperwork Reduction Act, unless that collection of information displays a currently valid Office of Management and Budget Control Number.
November 25, 2020

Ms. Brianna Scharf  
New York State Department of Environmental Conservation  
625 Broadway  
Albany, New York 12233

Dear Ms. Scharf:

WATER QUALITY CERTIFICATION  
Old Upper Mountain Road Site  
(Site No. 932112)  
Town and City of Lockport, Niagara County  
DEC No. 9-2999-00037/00001

This will acknowledge receipt of the October 2, 2020 Joint Application for the above-noted project, submitted on your behalf by EA Engineering, P.C. This letter affirms that this Department hereby grants Section 401 Water Quality Certification and certifies that the subject project will not contravene effluent limitations or other limitations or standards under Section 301, 302, 303, 306 and 307 of the Clean Water Act of 1977 (PL 95-217) for the project based on the following requirements:

1. Erosion and sedimentation controls shall be utilized as described in the application to minimize adverse impacts to water quality.

2. All erosion and sediment control practices shall be in place prior to any grading or filling operations and installation of proposed structures or utilities. They shall remain in place until construction is completed and the area is stabilized.

3. As soon as possible following construction, any exposed soils shall be seeded and mulched to prevent erosion.

4. Debris, vegetation and other spoil removed as part of project implementation (by the applicant or his contractors) shall be disposed of at upland locations above the reach of high water. Sediment disposal in the water body, wetlands, floodways or 100-year floodplains is strictly prohibited.
This determination does not relieve you of any requirements under any other applicable laws which may exist. You are advised to contact all appropriate federal, State and/or local agencies for any approvals that may be required including the U.S. Department of the Army Corps of Engineers, Buffalo District Office (1776 Niagara Street, Buffalo, NY 14207, telephone 716/879-4330).

This Water Quality Certification shall be valid for a period of three years from the date of this letter (expires November 24, 2023).

If you have any questions or comments regarding this letter, or your responsibilities under the New York State Environmental Conservation Law, please do not hesitate to contact this office.

Respectfully,

Mark F. Passuite
Deputy Regional Permit Administrator

MRW:cmn

ecc:   US Department of the Army Corps of Engineers, Buffalo District Office
       Mr. Michael Todd, NYSDEC Division of Fish & Wildlife
       Ms. Denine Jackson, NYSDEC Division of Water
       Mr. Robert Locey, NYSDEC Division of Water
       Mr. Matthew Smith, EA Engineering, P.C.
In Reply Refer To: 
Consultation Code: 05E1NY00-2020-SLI-2326 
Event Code: 05E1NY00-2020-E-07006 
Project Name: Old Upper Mountain Road Site (NYSDEC Site No. 923112) 

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project 

To Whom It May Concern: 

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 et seq.). This list can also be used to determine whether listed species may be present for projects without federal agency involvement. New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. 

Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the ESA, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC site at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list. If listed, proposed, or candidate species were identified as potentially occurring in the project area, coordination with our office is encouraged. Information on the steps involved with assessing potential impacts from projects can be found at: http://www.fws.gov/northeast/nyfo/es/section7.htm 

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/).

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: [http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm](http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm); [http://www.towerkill.com](http://www.towerkill.com); and [http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html](http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html).

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the ESA. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385
(607) 753-9334
Project Summary

Consultation Code: 05E1NY00-2020-SLI-2326
Event Code: 05E1NY00-2020-E-07006
Project Name: Old Upper Mountain Road Site (NYSDEC Site No. 923112)
Project Type: DREDGE / EXCAVATION
Project Description: Removal of contaminated soil and sediment from Gulf Creek at the Old Upper Mountain Road Superfund site, located in the City of Lockport, Niagara County, New York. The work is being managed by the New York State Department of Environmental Conservation (NYSDEC) under the Records of Decision (RODs) for Operable Unit 1 (OU1) and OU2, and OU3.

Project Location:
Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/43.17069382933937N78.72458693938569W

Counties: Niagara, NY
**Endangered Species Act Species**

There is a total of 0 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

1. [NOAA Fisheries](https://www.nmfs.noaa.gov), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

**Critical habitats**

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.
November 02, 2020

Adam Etringer  
Senior Scientist  
EA Engineering  
269 W. Jefferson Street  
Syracuse, NY 13202

Re: DEC  
NYSDEC Old Upper Mountain Road Site, Gulf Interceptor Sewer Relocation  
Otto Park Place/Oakhurst Street, Lockport, Niagara County, NY  
20PR06504

Dear Adam Etringer:

Thank you for requesting the comments of the Office of Parks, Recreation and Historic Preservation (OPRHP). We have reviewed the project in accordance with the New York State Historic Preservation Act of 1980 (Section 14.09 of the New York Parks, Recreation and Historic Preservation Law). These comments are those of the OPRHP and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8) and its implementing regulations (6 NYCRR Part 617).

Based upon this review, it is the opinion of OPRHP that no properties, including archaeological and/or historic resources, listed in or eligible for the New York State and National Registers of Historic Places will be impacted by this project.

If further correspondence is required regarding this project, please be sure to refer to the OPRHP Project Review (PR) number noted above.

Sincerely,

R. Daniel Mackay  
Deputy Commissioner for Historic Preservation  
Division for Historic Preservation
MEMORANDUM
SPDES Permit Equivalent

TO: Brianna Scharf, DER
FROM: Catherine Winters, Bureau of Water Permits, DOW
SUBJECT: SPDES Permit Equivalent: Old Upper Mountain Road,
DER Site ID 9-32-112
DRAINAGE BASIN: 03/01
DATE: September 23, 2021

In response to your request dated July 14, 2021, attached please find the effluent limitations and monitoring requirements for the above noted remediation discharge.

The discharge consists of treated water from dewatering of sediment during remediation. The proposed treatment system consists of pumps, frac tanks, settling tank, mechanical filtration, activated carbon treatment, and effluent holding tanks.

The DOW does not have any regulatory authority over a discharge from a State, PRP, or Federal Superfund Site. DER will be responsible for ensuring compliance with the attached effluent limitations and monitoring requirements, and approval of all engineering submissions. The additional conditions identify the appropriate DER contact person who will receive all effluent results, engineering submissions, and modification requests. The Regional Water Engineer should be kept appraised of the status of this discharge and, in accordance with the attached criteria, receive a copy of the effluent results for informational purposes.

If you have any questions, please call Catherine Winters at 518-402-8288.

Attachment (Effluent Limitations and Monitoring Requirements)

cc: Sarah Saucier, DER (via email, w/attach)
    Region 9 Regional Water Engineer (via email, w/attach)
    DOW BWP Section Chief (via email, w/attach)
The discharges from the treatment facility shall be limited and monitored by the operator as specified below:

<table>
<thead>
<tr>
<th>Outfall and Parameters</th>
<th>CAS No.</th>
<th>Monthly Avg. Limits</th>
<th>Daily Max Limits</th>
<th>Units</th>
<th>Minimum Monitoring Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outfall 001</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Measurement Frequency</td>
</tr>
<tr>
<td>Flow</td>
<td>NA</td>
<td>-</td>
<td>220,000 gpd</td>
<td>Continuous Recorder</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>NA</td>
<td>-</td>
<td>6.5-8.5 SU</td>
<td>Monthly Grab 2</td>
<td></td>
</tr>
<tr>
<td>Total Suspended Solids</td>
<td>NA</td>
<td>20</td>
<td>40 mg/L</td>
<td>Monthly Grab 2</td>
<td></td>
</tr>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
<td>Monitor</td>
<td>Monitor</td>
<td>Monthly Grab 2</td>
<td></td>
</tr>
<tr>
<td>Aluminum</td>
<td>NA</td>
<td>Monitor</td>
<td>µg/L</td>
<td>Monthly Grab 2</td>
<td></td>
</tr>
<tr>
<td>Antimony</td>
<td>NA</td>
<td>Monitor</td>
<td>µg/L</td>
<td>Monthly Grab 2</td>
<td></td>
</tr>
<tr>
<td>Arsenic</td>
<td>NA</td>
<td>Monitor</td>
<td>340 µg/L</td>
<td>Monthly Grab 2</td>
<td></td>
</tr>
<tr>
<td>Barium</td>
<td>NA</td>
<td>Monitor</td>
<td>-</td>
<td>Monthly Grab 2</td>
<td></td>
</tr>
<tr>
<td>Benzo[a]anthracene</td>
<td>56-55-3</td>
<td>Monitor</td>
<td>0.23 µg/L</td>
<td>Monthly Grab 2</td>
<td></td>
</tr>
<tr>
<td>Benzo[a]pyrene</td>
<td>50-32-8</td>
<td>0.0012</td>
<td>-</td>
<td>Monthly Grab 2</td>
<td></td>
</tr>
<tr>
<td>Benzo[b]fluoranthene</td>
<td>205-99-2</td>
<td>Monitor</td>
<td>10 µg/L</td>
<td>Monthly Grab 2</td>
<td></td>
</tr>
<tr>
<td>Benzo[g,h,i]perylene</td>
<td>191-24-2</td>
<td>Monitor</td>
<td>10 µg/L</td>
<td>Monthly Grab 2</td>
<td></td>
</tr>
<tr>
<td>Benzo[k]fluoranthene</td>
<td>207-08-9</td>
<td>Monitor</td>
<td>10 µg/L</td>
<td>Monthly Grab 2</td>
<td></td>
</tr>
<tr>
<td>Beryllium</td>
<td>-</td>
<td>Monitor</td>
<td>-</td>
<td>Monthly Grab 2</td>
<td></td>
</tr>
<tr>
<td>bis(2-Ethylhexyl)phthalate</td>
<td>117-81-7</td>
<td>Monitor</td>
<td>10 µg/L</td>
<td>Monthly Grab 2</td>
<td></td>
</tr>
<tr>
<td>Cadmium</td>
<td>NA</td>
<td>Monitor</td>
<td>6.0 µg/L</td>
<td>Monthly Grab 2</td>
<td></td>
</tr>
<tr>
<td>Calcium</td>
<td>NA</td>
<td>Monitor</td>
<td>Monitor</td>
<td>Monthly Grab 2</td>
<td></td>
</tr>
<tr>
<td>Carbazole</td>
<td>-</td>
<td>Monitor</td>
<td>µg/L</td>
<td>Monthly Grab 2</td>
<td></td>
</tr>
<tr>
<td>Chromium</td>
<td>NA</td>
<td>Monitor</td>
<td>770 µg/L</td>
<td>Monthly Grab 2</td>
<td></td>
</tr>
<tr>
<td>Chrysene</td>
<td>218-01-9</td>
<td>Monitor</td>
<td>5.0 µg/L</td>
<td>Monthly Grab 2</td>
<td></td>
</tr>
<tr>
<td>Cobalt</td>
<td>NA</td>
<td>Monitor</td>
<td>110 µg/L</td>
<td>Monthly Grab 2</td>
<td></td>
</tr>
<tr>
<td>Copper</td>
<td>NA</td>
<td>Monitor</td>
<td>21 µg/L</td>
<td>Monthly Grab 2</td>
<td></td>
</tr>
<tr>
<td>Dibenzo[a,h]anthracene</td>
<td>55-70-3</td>
<td>Monitor</td>
<td>10 µg/L</td>
<td>Monthly Grab 2</td>
<td></td>
</tr>
<tr>
<td>Fluoranthene</td>
<td>206-44-0</td>
<td>Monitor</td>
<td>10 µg/L</td>
<td>Monthly Grab 2</td>
<td></td>
</tr>
<tr>
<td>Indeno(1,2,3-CD)pyrene</td>
<td>193-39-5</td>
<td>Monitor</td>
<td>10 µg/L</td>
<td>Monthly Grab 2</td>
<td></td>
</tr>
<tr>
<td>Iron</td>
<td>-</td>
<td>Monitor</td>
<td>Monitor</td>
<td>Monthly Grab 2</td>
<td></td>
</tr>
<tr>
<td>Lead</td>
<td>NA</td>
<td>Monitor</td>
<td>140 µg/L</td>
<td>Monthly Grab 2</td>
<td></td>
</tr>
</tbody>
</table>
### Footnotes:

1. The proposed outfall points are depicted in the site overview on page 5. Note that the actual outfall point will vary as the contractor proceeds with the remedial construction. The outfall will be located within one of the areas depicted.

2. The measurement frequency of parameters listed on this page shall be Monthly following a period of 12 (twelve) consecutive weekly sampling events showing no exceedances of the stated discharge limitations. If discharge limitation of any parameter listed on this page exceeds the stated limit, the measurement frequency for all parameters listed on this page shall again be weekly, until a period of four consecutive sampling events showing no exceedances at which point monthly monitoring may resume.

3. Mercury shall be analyzed using USEPA Method 1631.

4. Mercury limitation of 12 ng/L shall be applied as a 12-month rolling average limitation.

5. Discharge limit is set at the Practical Quantitation Limit (PQL). The actual standard or guidance value concentration is equal to this limit. Analysis of this parameter shall be conducted using the most stringent USEPA approved method in accordance with 40 CFR 136.

6. Applies to the sum of these substances.
Additional Conditions:

1. Discharge is not authorized until such time as an engineering submission showing the method of treatment is approved by the Department. The discharge rate may not exceed the effective or design treatment system capacity. All monitoring data, engineering submissions and modification requests must be submitted to:

   Brianna Scharf
   brianna.scharf@dec.ny.gov
   518-402-5987

   With a copy sent to:
   Regional Water Engineer, Region 9
   270 Michigan Ave., Buffalo, New York, 14203    Phone: (716) 851-7070

2. Samples and measurements, to comply with the monitoring requirements specified above, must be taken from the effluent side of the final treatment unit prior to discharge to the receiving water body unless otherwise noted above.

3. Only site generated wastewater is authorized for treatment and discharge.

4. Authorization to discharge is valid only for the period noted above but may be renewed if appropriate. A request for renewal must be received 6 months prior to the expiration date to allow for a review of monitoring data and reassessment of monitoring requirements.

5. Both concentration (mg/L or μg/L) and mass loadings (lbs/day) must be reported to the Department for all parameters except flow and pH.

6. Any use of corrosion/scale inhibitors, biocidal-type compounds, or other water treatment chemicals used in the treatment process must be approved by the department prior to use.

7. This discharge and administration of this discharge must comply with the substantive requirements of 6 NYCRR Part 750.
MONITORING LOCATIONS
Submit flow schematic with labeled monitoring locations upon completion of the system design.
SITE OVERVIEW

Note: Treatment system discharge location will be determined by the Contractor, but will occur within the limits of Area 1 or Area 2 as identified on this figure.
60-Day Advance Notification of Site Change of Use, Transfer of Certificate of Completion, and/or Ownership

To be submitted at least 60 days prior to change of use to:

Chief, Site Control Section
New York State Department of Environmental Conservation
Division of Environmental Remediation, 625 Broadway
Albany NY 12233-7020

I. Site Name: ________________________________
   Lockport City Landfill
   DEC Site ID No. ________________ 932010

II. Contact Information of Person Submitting Notification:
   Name: Matt Smith - EA Engineering, P.C. and Its Affiliate EA Science and Technology
   Address1: 269 W. Jefferson Street
   Address2: Syracuse, New York 13202
   Phone: (315)-565-6558  E-mail: mattsmith@eaest.com

III. Type of Change and Date: Indicate the Type of Change(s) (check all that apply):

   □ Change in Ownership or Change in Remedial Party(ies)
   □ Transfer of Certificate of Completion (CoC)
   □ Other (e.g., any physical alteration or other change of use)

   Proposed Date of Change (mm/dd/yyyy): Sep 1, 2022

IV. Description: Describe proposed change(s) indicated above and attach maps, drawings, and/or parcel information.

   A portion of the existing Lockport City Landfill cap will be peeled back and prepared for placement of dredged/amended material to be excavated from the Old Upper Mountain Road Site OU-2 Area 2 (NYSDEC Site No. 932112). This work will take place on Parcel 108.00-1-14. The attached Contract Documents for Contract D012107 depict the proposed footprint of the material placement area, as well as the final grading plan.

   If “Other,” the description must explain and advise the Department how such change may or may not affect the site’s proposed, ongoing, or completed remedial program (attach additional sheets if needed).

   While the proposed change will temporarily alter the site’s remedial closure status, once the excavation and material placement is complete, a modified Part 360 Cap will be installed that will meet or exceed the requirements of the ROD for Site 932010. Stormwater drainage features will be constructed and gas vents extended or new installed to meet required stormwater and surface water drainage needs. Future site management activities for Site 932010 are not anticipated to change from the currently executed annual activities.
V. **Certification Statement:** Where the change of use results in a change in ownership or in responsibility for the proposed, ongoing, or completed remedial program for the site, the following certification must be completed (by owner or designated representative; see §375-1.11(d)(3)(i)):

I hereby certify that the prospective purchaser and/or remedial party has been provided a copy of any order, agreement, Site Management Plan, or State Assistance Contract regarding the Site’s remedial program as well as a copy of all approved remedial work plans and reports.

Name: ________________________________  ____________________

 (Signature)  (Date)

________________________________

(Print Name)

Address1: _____________________________________________________________________
Address2: _____________________________________________________________________
Phone: ______________________  E-mail:  _____________________________________

VI. **Contact Information for New Owner, Remedial Party, or CoC Holder:** If the site will be sold or there will be a new remedial party, identify the prospective owner(s) or party(ies) along with contact information. If the site is subject to an Environmental Easement, Deed Restriction, or Site Management Plan requiring periodic certification of institutional controls/engineering controls (IC/ECs), indicate who will be the certifying party (attach additional sheets if needed).

☐ Prospective Owner  ☐ Prospective Remedial Party  ☐ Prospective Owner Representative

Name: _____________________________________________________________________

Address1: _____________________________________________________________________
Address2: _____________________________________________________________________
Phone: ______________________  E-mail:  _____________________________________

Certifying Party Name: _____________________________________________________________________

Address1: _____________________________________________________________________
Address2: _____________________________________________________________________
Phone: ______________________  E-mail:  _____________________________________
VII. **Agreement to Notify DEC after Transfer:** If Section VI applies, and all or part of the site will be sold, a letter to notify the DEC of the completion of the transfer must be provided. If the current owner is also the holder of the CoC for the site, the CoC should be transferred to the new owner using DEC’s form found at [http://www.dec.ny.gov/chemical/54736.html](http://www.dec.ny.gov/chemical/54736.html). This form has its own filing requirements (see 6NYCRR Part 375-1.9(f)).

Signing below indicates that these notices will be provided to the DEC within the specified time frames. If the sale of the site also includes the transfer of a CoC, the DEC agrees to accept the notice given in VII.3 below in satisfaction of the notice required by VII.1 below (which normally must be submitted within 15 days of the sale of the site).

Within 30 days of the sale of the site, I agree to submit to the DEC:

1. the name and contact information for the new owner(s) (see §375-1.11(d)(3)(ii));
2. the name and contact information for any owner representative; and
3. a notice of transfer using the DEC’s form found at [http://www.dec.ny.gov/chemical/54736.html](http://www.dec.ny.gov/chemical/54736.html) (see §375-1.9(f)).

Name: ________________________________    ____________________
      (Signature)                                                                                   (Date)

________________________________
      (Print Name)

Address1: ______________________________________________________________________
Address2: ______________________________________________________________________
Phone:   ______________________  E-mail:  ________________________________________
<table>
<thead>
<tr>
<th>Name:</th>
<th>Address1:</th>
<th>Address2:</th>
<th>Phone:</th>
<th>E-mail:</th>
</tr>
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<tr>
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<td>E-mail:</td>
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<td>Address1:</td>
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<tr>
<td>Name:</td>
<td>Address1:</td>
<td>Address2:</td>
<td>Phone:</td>
<td>E-mail:</td>
</tr>
</tbody>
</table>
## Instructions for Completing the 60-Day Advance Notification of Site Change of Use, Transfer of Certificate of Completion (CoC), and/or Ownership Form

Submit to: Chief, Site Control Section, New York State Department of Environmental Conservation, Division of Environmental Remediation, 625 Broadway, Albany NY 12233-7020

### Section I

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Site Name</strong></td>
</tr>
</tbody>
</table>
| Official DEC site name.  
| **DEC Site ID No.** |
| DEC site identification number. |

### Section II

<table>
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<tr>
<th>Description</th>
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<tbody>
<tr>
<td><strong>Name</strong></td>
</tr>
<tr>
<td>Name of person submitting notification of site change of use, transfer of certificate of completion and/or ownership form.</td>
</tr>
<tr>
<td><strong>Address1</strong></td>
</tr>
<tr>
<td>Street address or P.O. box number of the person submitting notification.</td>
</tr>
<tr>
<td><strong>Address2</strong></td>
</tr>
<tr>
<td>City, state and zip code of the person submitting notification.</td>
</tr>
<tr>
<td><strong>Phone</strong></td>
</tr>
<tr>
<td>Phone number of the person submitting notification.</td>
</tr>
<tr>
<td><strong>E-mail</strong></td>
</tr>
<tr>
<td>E-mail address of the person submitting notification.</td>
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### Section III

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<th>Description</th>
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<tbody>
<tr>
<td><strong>Check Boxes</strong></td>
</tr>
<tr>
<td>Check the appropriate box(s) for the type(s) of change about which you are notifying the Department. Check all that apply.</td>
</tr>
<tr>
<td><strong>Proposed Date of Change</strong></td>
</tr>
<tr>
<td>Date on which the change in ownership or remedial party, transfer of CoC, or other change is expected to occur.</td>
</tr>
</tbody>
</table>

### Section IV

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
</tr>
</tbody>
</table>
| For each change checked in Section III, describe the proposed change.  
Provide all applicable maps, drawings, and/or parcel information.  
If “Other” is checked in Section III, explain how the change may affect the site’s proposed, ongoing, or completed remedial program at the site.  
Please attach additional sheets, if needed. |
Section V  Certification Statement

This section must be filled out if the change of use results in a change of ownership or responsibility for the proposed, ongoing, or completed remedial program for the site. When completed, it provides DEC with a certification that the prospective purchaser has been provided a copy of any order, agreement, or State assistance contract as well as a copy of all approved remedial work plans and reports.

Name  The owner of the site property or their designated representative must sign and date the certification statement. Print owner or designated representative’s name on the line provided below the signature.

Address1  Owner or designated representative’s street address or P.O. Box number.

Address2  Owner or designated representative’s city, state and zip code.

Phone  Owner or designated representative’s phone number.

E-Mail  Owner or designated representative’s E-mail.

Section VI  Contact Information for New Owner, Remedial Party, and CoC Holder (if a CoC was issued)

Fill out this section only if the site is to be sold or there will be a new remedial party. Check the appropriate box to indicate whether the information being provided is for a Prospective Owner, CoC Holder (if site was ever issued a COC), Prospective Remedial Party, or Prospective Owner Representative. Identify the prospective owner or party and include contact information. A Continuation Sheet is provided at the end of this form for additional owner/party information.

Name  Name of Prospective Owner, Prospective Remedial Party or Prospective Owner Representative.

Address1  Street address or P.O. Box number for the Prospective Owner, Prospective Remedial Party, or Prospective Owner Representative.

Address2  City, state and zip code for the Prospective Owner, Prospective Remedial Party, or Prospective Owner Representative.

Phone  Phone number for the Prospective Owner, Prospective Remedial Party or Prospective Owner Representative.

E-Mail  E-mail address of the Prospective Owner, Prospective Remedial Party or Prospective Owner Representative.
If the site is subject to an Environmental Easement, Deed Restriction, or Site Management Plan requiring periodic certification of institutional controls/engineering controls (IC/EC), indicate who will be the certifying party(ies). Attach additional sheets, if needed.

Certifying Party
Name  Name of Certifying Party.
Address1  Certifying Party’s street address or P.O. Box number.
Address2  Certifying Party’s city, state and zip code.
Phone  Certifying Party’s Phone number.
E-Mail  Certifying Party’s E-mail address.

Section VII Agreement to Notify DEC After Property Transfer/Sale

This section must be filled out for all property transfers of all or part of the site. If the site also has a CoC, then the CoC shall be transferred using DEC’s form found at http://www.dec.ny.gov/chemical/54736.html

Filling out and signing this section of the form indicates you will comply with the post transfer notifications within the required timeframes specified on the form. If a CoC has been issued for the site, the DEC will allow 30 days for the post transfer notification so that the “Notice of CoC Transfer Form” and proof of it’s filing can be included. Normally the required post transfer notification must be submitted within 15 day (per 375-1.11(d)(3)(ii)) when no CoC is involved.

Name  Current property owner must sign and date the form on the designated lines. Print owner’s name on the line provided.
Address1  Current owner’s street address.
Address2  Current owner’s city, state and zip code.
CITY OF LOCKPORT
ONE LOCKS PLAZA
LOCKPORT, NEW YORK 14094

YEARY LICENSE
FEE: $200.00 Cash or Check NUMBER: ________

APPLICATION FOR A CONTRACTOR'S LICENSE

NAME OF CONCERN OR CORP. _____________________________________________
BUSINESS ADDRESS ______________________________________________________
BUSINESS PHONE________________ NUMBER OF YEARS IN BUSINESS_________
NAME OF PRINCIPAL OWNER OR OWNERS__________________________________
ADDRESS________________________________________________________________
HOME PHONE ________________________ DATE OF BIRTH ____________________
APPROXIMATE NUMBER OF EMPLOYEES __________________________________
NAME OF INSURANCE COMPANY __________________________________________

REQUIRED COVERAGE IN ORDER TO APPLY FOR LICENSE

$300,000 LIABILITY COVERAGE ACCORD FORM ACCEPTABLE
$10,000 PROPERTY DAMAGE ACCORD FORM ACCEPTABLE
COMPENSATION INSURANCE REQUIRED C105.2 FORM
DISABILITY FORM DB120 FORM

**CERTIFICATE OF INSURANCE TO BE ISSUED TO CITY OF LOCKPORT**
CHECK APPROPRIATE TYPES OF CONTRACTOR:

____ NEW HOME - GENERAL CONTRACTOR
____ HOME IMPROVEMENT - ADDITIONS, DORMERS, ETC.
____ INTERIOR REMODELING
____ EXTERIOR REMODELING OR SIDING, ETC.
____ ROOFING OR GUTTERS
____ ELECTRICAL
____ DRY WALL
____ GARAGE
____ SUB CONTRACTOR
____ CONCRETE DRIVEWAY
____ BLACKTOP DRIVEWAY
____ HEATING AND AIR CONDITIONING
____ FENCE CONTRACTOR
____ PLUMBING
____ OTHER

___________________________________
SIGNATURE OF APPLICANT

_______________________
DATE
Public Improvement Construction Permit Application

This application is for permission to construct the following Public Improvement in compliance with the Town of Lockport Local Law establishing Public Improvement fees. 
Local Law No. 10 of the year 2001

Name of Applicant: __________________________

1. Date Application Submitted: __________________________

2. Planning Board Approval Date: __________________________

3. Type of Improvement and Estimated Cost:

<table>
<thead>
<tr>
<th>Type of Improvement</th>
<th>Estimated Cost:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road Construction</td>
<td>$______________</td>
</tr>
<tr>
<td>Water Line</td>
<td>$______________</td>
</tr>
<tr>
<td>Drainage/Storm Water Management</td>
<td>$______________</td>
</tr>
<tr>
<td>Sanitary Sewer</td>
<td>$______________</td>
</tr>
<tr>
<td>Lighting</td>
<td>$______________</td>
</tr>
<tr>
<td>Sidewalks</td>
<td>$______________</td>
</tr>
<tr>
<td>Other:</td>
<td>$______________</td>
</tr>
</tbody>
</table>

Total Estimated Costs: $______________

4. Subdivision or Project Name: __________________________

5. Street Name(s): __________________________

6. Brief Description of Each Proposed Public Improvement, including:

<table>
<thead>
<tr>
<th>Type:</th>
<th>Location:</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
</tbody>
</table>

Footage Total: __________________________

Dimensions: __________________________

Type of Material: __________________________

Itemized Quantities: __________________________

Depth of Improvement: __________________________

Height of Improvement: __________________________

Attach additional page “Item Number 6, Continued”, if necessary.
7. Contractor(s):

Attach additional sheets, if necessary. ALL contractors and subcontractors must be listed.

Contractor’s Address:

Contractor’s Phone:

8. Applicant’s Engineer:

Engineer’s Address:

Engineer’s Phone:

9. Amount of Surety Bond:

Company Supplying Bond:

Company’s Address:

10. Is the property subject to Homeowner's Association Regulations or other private maintenance agreements? Yes: No:

If yes, have the appropriate easements, dedications, right-of-way deed and agreements been recorded? Submit copies of recorded documents and regulations.

By signing this Application, the applicant represents: He(She) is duly authorized to act on behalf of the applicant, and work under this permit shall be started within 60 days and completed within one year from the date of approval thereof. Any request for extension shall be addressed in writing to the Lockport Town Board.

In consideration of the granting of this permit, the undersigned hereby agrees that if such permit is granted, the applicant will comply with the terms thereof, the law and regulations of the State of New York and the law, regulations and/or ordinances of the Town of Lockport, conditions of which include but are not limited to:

A) All work will be performed in accordance with approved plans and specification and requirements of Federal, State, and Local Laws:

B) The Owner/Applicant will obtain and pay for all necessary permits;

C) The Owner/Applicant will notify the Town Engineer 72 hours before commencing work under this permit;

D) Inspection by the Town, its engineers or agents during construction is solely for the Town. The Applicant, its Contractors and agents are solely responsible for proper engineering, construction methods and materials, conformance with specifications and safety of workers and the Public, and shall hold the Town of Lockport, its agents, engineers and consultants harmless from any and all liability arising from applicant’s activities pursuant to the Public Improvement Construction Permit.

E) As-built drawings will be submitted upon completion prior to issuance of CERTIFICATE OF APPROVAL.

The Owner also warrants that he/she is cognizant of the fact that the Public Improvement fee is based on work being performed during normal working hours (7:00 a.m. to 5:00 p.m.), Monday through Friday, except for legal holidays, and that deviations from such schedule or hours will require Town Supervisor approval and may also involve imposition of additional fees.

Applicant’s Signature

Applicant’s Name (Please Print)
I have reviewed and approved the plan and specifications filed with the Application.

<table>
<thead>
<tr>
<th>Signature of Town Engineer</th>
<th>Date: __________________________</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highway Superintendent</td>
<td>Date: __________________________</td>
</tr>
<tr>
<td>Building Inspector</td>
<td>Date: __________________________</td>
</tr>
</tbody>
</table>

The Building Inspector will not approve until proof of all required insurance, bonds, and easements are shown and the application fee is paid.

For Office Use Only

Date __________ Required materials attached ______ Fee ______ Paid ______

Cash ______ Check ______ Money Order ______ Initial ______

PLEASE SUBMIT:

☐ FOUR (4) COPIES OF THIS COMPLETED FORM,
☐ FOUR (4) COMPLETE SETS OF DRAWINGS (PRINTS), ND DESCRIPTIONS
☐ FOUR (4) COMPLETE COPIES OF SPECIFICATIONS FOR THE PROJECT,

AND

☐ TWO (2) COPIES OF PROOF REGARDING THE REQUIRED INSURANCE, CERTIFICATE FEES, POLICIES, BONDS, EASEMENTS AND AGREEMENTS TO THE TOWN BUILDING INSPECTOR.
ROAD WORK PERMIT APPLICATION

The Applicant must complete this application, pay the required fee ($50.00), and provide any additional information required by the Highway Superintendent, prior to processing of this permit application.

Applicant Name & Address: _______________________________________________
_______________________________________________

Phone Number:   _______________________________________________

Person Overseeing Work:  _______________________________________________

Describe the nature of the desired work including the restoration work to restore the right of way to original condition and to protect the work and other utilities in the vicinity.
______________________________________________________________________________
______________________________________________________________________________

Map Information:  Date of Map:_________________ Prepared by:_____________________

Date Applicant desires to commence work:___________________________

Date Applicant intends to complete work:____________________________

Applicant must submit with this application a map or site plan showing the exact location of the work with dimensions. No permit will be issued until such map is submitted. Utilities in the vicinity must also be located on the map.

By submitting the application the applicant verifies that the work will be performed in accordance with this application, the map, and any additional or different requirements contained in the permit. Performance of work without a permit, or in violation of a permit constitutes a violation and may cause fine or imprisonment. By executing this application, the applicant represents that he is the duly authorized representation of the applicant. Applicant warrants that he shall be fully responsible for any and all traffic control, safety, trenching and site protection in connection with the work, and shall the Town of Lockport harmless from any and all liability arising out of the work, and represents that any necessary notification to other utilities for location will be given prior to commencement of work.

Dated:______________

Name of Applicant

By:______________________________

Signature of Applicant or Representative
SECTION X

Standard Specifications
SECTION X
STANDARD SPECIFICATIONS
Contract No. D012107

01 25 00 Substitution Procedures ................................................................. 01 25 00-1
01 25 00.A Substitution Request Form .......................................................... 01 25 00A-1
01 25 00.B Proposed Substitution Checklist ..................................................... 01 25 00B-1
01 26 00 Contract Modification Procedures .................................................... 01 26 00-1
01 26 00.A Request for Interpretation Form ...................................................... 01 26 00A-1
01 26 00.B Proposed Change Order Request Form .......................................... 01 26 00B-1
01 26 00.C Proposed Change Order Form .......................................................... 01 26 00C-1
01 26 00.D Field Order Form ........................................................................... 01 26 00D-1
01 29 73 Bid Breakdown (Schedule of Values) .................................................. 01 29 73-1
01 31 19.13 Pre-Construction Conference ....................................................... 01 31 19.13-1
01 31 19.23 Progress Meetings ....................................................................... 01 31 19.23-1
01 31 26 Electronic Communication Protocols ................................................... 01 31 26-1
01 32 16 Progress Schedule ............................................................................ 01 32 16-1
01 32 33 Aerial and Ground Photographic Documentation .................................. 01 32 33-1
01 33 00 Submittal Procedures ........................................................................ 01 33 00-1
01 33 00A Project Submittals ........................................................................... 01 33 00A-1
01 35 29 Contractor’s Health and Safety Plan .................................................... 01 35 29-1
01 35 33 COVID-19 Risk Management ............................................................. 01 35 33-1
01 35 33.A Entry/Exit Log with COVID-19 Acknowledgment .............................. 01 35 33A-1
01 35 33.B COVID-19 Infection Poster .............................................................. 01 35 33B-1
01 35 33.C COVID-19 Site Access Poster .......................................................... 01 35 33C-1
01 35 43.13 Environmental Procedures for Hazardous Materials ...................... 01 35 43.13-1
01 42 00 References ........................................................................................ 01 42 00-1
01 45 29 Testing Laboratory Services Furnished by Contractor .......................... 01 45 29-1
01 51 05 Temporary Utilities and Controls ....................................................... 01 51 05-1
01 52 11 Engineer’s Field Office ...................................................................... 01 52 11-1
01 52 13 Contractors Field Office and Sheds ..................................................... 01 52 13-1
01 55 13 Access Roads and Parking Areas ....................................................... 01 55 13-1
01 57 33 Security ............................................................................................ 01 57 33-1
01 58 00 Project Identification and Signs .......................................................... 01 58 00-1
01 58 00.A Project Sign Attachment .................................................................. 01 58 00A-1
01 62 00 Product Options .................................................................................. 01 62 00-1
01 65 00 Product Delivery Requirements .......................................................... 01 65 00-1
01 66 00 Product Storage and Handling Requirements ....................................... 01 66 00-1
01 73 00 Field Engineering ............................................................................. 01 73 00-1
01 76 50 Nuisance Controls, Management, and Corrective Measures .................. 01 76 50-1
01 77 19 Closeout Requirements ...................................................................... 01 77 19-1
01 77 19.A Sample Letter – Request for Substantial Completion ......................... 01 77 19A-1
01 77 19.B Sample Checklist for Final Inspection ............................................. 01 77 19B-1
01 77 19.C Sample Letter – Request for Final Completion ................................... 01 77 19C-1
01 77 23 Inspections ........................................................................................ 01 77 23-1
01 78 39 Project Record Documents ................................................................. 01 78 39-1
01 89 29 Green Remediation Practices .............................................................. 01 89 29-1
01 89 29.A Green Remediation – Form A ............................................................ 01 89 29A-1
34 78 13 Portable Truck Scale .......................................................................... 34 78 13-1
SECTION 01 25 00

SUBSTITUTION PROCEDURES

PART 1 – GENERAL

1.1 DESCRIPTION

A. Scope: Section includes:
   1. Administrative and procedural requirements for selecting materials and equipment for the Project.
   2. Procedural requirements for substitutions of materials and equipment.
   3. Procedural requirements for substitute construction methods or procedures, when construction methods or procedures are specified.
   4. This section supplements the requirements of Section VIII General Conditions: Article 5.7.

B. A proposed substitute will not be accepted for review if:
   1. Approval would require changes in design concept or a substantial revision of the Contract Documents.
   2. Approval would delay completion of the Work or the work of other contractors.
   3. Substitution request is indicated or implied on a Shop Drawing or other submittal, or on a request for interpretation or clarification, and is not accompanied by CONTRACTOR’s formal and complete request for substitution.

C. If proposed substitute is not approved, CONTRACTOR shall provide the specified materials, equipment, method, or procedure, as applicable.

D. Approval of a substitute does not relieve CONTRACTOR from requirement for submitting Shop Drawings and other submittals in accordance with the Contract Documents.

E. ENGINEER and DEPARTMENT have the right to rely upon the completeness and accuracy of the information included in CONTRACTOR’s request for approval of a substitute, and CONTRACTOR accepts full responsibility for the completeness and accuracy thereof.

F. When approved substitute is defective or fail to perform in accordance with the Contract Documents, responsibility for remedying the defect or failure resides solely with CONTRACTOR and Supplier.

1.2 SUBMITTALS

A. Action Submittals. Submit the following for proposed substitutions in accordance with the requirements in this Section:
1. Substitute Materials and Equipment: Submit the Substitution Request Form and Proposed Substitution Checklist at least 20 days prior to Work associated with the proposed Substitution.

2. Substitute Construction Methods or Procedures: Submit the Substitution Request Form and Proposed Substitution Checklist within 15 days of the Effective Date of Agreement.

1.3 SUBSTITUTE MATERIALS AND EQUIPMENT

A. Requests for approval of substitute items of materials or equipment will be evaluated in accordance with the requirements of the Section VIII General Conditions: Article 5.7.

B. Procedure:
   1. Submit requests for substitution in accordance with requirements for furnishing submittals, as indicated in Section X Standard Specifications: Section 01 33 00 – Submittal Procedures.
   2. Submit separate request for each proposed substitute.
   3. Submit request for substitution using forms attached to this Section. Submittal of the Substitution Request Form and Proposed Substitution Checklist is required for each proposed substitution. Complete all information requested on each form and enclose with the forms supplementary information as required. In addition to requirements of the General Conditions and information required on substitution request forms, include with each substitute request the following:
      a. Identification of the materials and equipment (as applicable), including manufacturer’s name and address.
      b. Manufacturer’s literature with description of the materials and equipment, performance and test data, and reference standards with which materials and equipment comply.
      c. Samples, when appropriate.
      d. Name and address of similar projects on which the materials and equipment were used, date of installation, and names and contact information (including telephone number) for the facility operations and maintenance manager.

1.4 SUBSTITUTE CONSTRUCTION METHODS OR PROCEDURES

A. Where construction methods or procedures are specified, for a period of 15 days after the Effective Date of the Agreement, ENGINEER will consider CONTRACTOR’s written requests for substitute construction methods or procedures shown or specified in the Contract Documents.

B. The provisions of the General Conditions, as may be modified by the Supplementary Conditions, regarding substitute items of materials and equipment are hereby extended to apply to substitute construction methods or procedures.

C. Procedure:
1. Submit requests for substitution in accordance with requirements for furnishing submittals, as indicated in Section X Standard Specifications: Section 01 33 00 – Submittal Procedures.
2. Submit separate request for each proposed substitute.
3. Submit request for substitution using forms attached to this Section. Complete all information requested on each form and enclose with the forms supplementary information as required. In addition to requirements of the General Conditions and information required on substitution request forms, include with each substitute request the following:
   a. Detailed description of proposed method or procedure.
   b. Itemized comparison of the proposed substitution with the specified method or procedure.
   c. Drawings illustrating method or procedure.
   d. Other data required by ENGINEER to establish that proposed substitution is equivalent to specified method or procedure.

1.5 CONTRACTOR’S REPRESENTATIONS

A. In submitting request for substitution, CONTRACTOR represents that:
   1. CONTRACTOR has read, fully understands and complies with the provisions regarding substitutes as indicated in the General Conditions, as may be modified by the Supplementary Conditions.
   2. Substitution request is complete and includes all information required by the Contract Documents.
   3. CONTRACTOR certifications required by the General Conditions, as may be modified by the Supplementary Conditions, are valid and made with CONTRACTOR’s full knowledge, information, and belief.
   4. CONTRACTOR will provide the same or better guarantees or warranties for proposed substitute as for the specified materials, equipment, methods, or procedures, as applicable.
   5. CONTRACTOR waives all Claims for additional costs or extension of time related to proposed substitute that subsequently may become apparent.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.1 ATTACHMENTS

A. The documents listed below and attached following this Section’s “End of Section” designation, are part of this Specification Section.
   1. Substitution Request Form (two pages).
   2. Product Substitution Checklist (one page).

++ END OF SECTION ++
**SUBSTITUTION REQUEST**

<table>
<thead>
<tr>
<th>Project:</th>
<th>Substitution Request Number:</th>
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</thead>
<tbody>
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<tr>
<th>From:</th>
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<th>To:</th>
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<th>Date:</th>
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<tr>
<th>Engineer Project. No.</th>
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<tr>
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<tr>
<th>Contract For:</th>
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<table>
<thead>
<tr>
<th>Specification Title:</th>
<th>Description:</th>
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<table>
<thead>
<tr>
<th>Section:</th>
<th>Page:</th>
<th>Article/Paragraph:</th>
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<tr>
<td></td>
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<table>
<thead>
<tr>
<th>Proposed Substitute:</th>
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<tbody>
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<td></td>
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</table>

<table>
<thead>
<tr>
<th>Manufacturer:</th>
<th>Address:</th>
<th>Phone:</th>
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<tr>
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<td></td>
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<table>
<thead>
<tr>
<th>Trade Name:</th>
<th>Model No.:</th>
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<table>
<thead>
<tr>
<th>Installer:</th>
<th>Address:</th>
<th>Phone:</th>
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<tr>
<td></td>
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<td></td>
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<table>
<thead>
<tr>
<th>History:</th>
</tr>
</thead>
<tbody>
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<td></td>
</tr>
</tbody>
</table>

- New product
- 1 to 4 years old
- 5 to 10 years old
- More than 10 years old

<table>
<thead>
<tr>
<th>Differences between proposed substitute and specified item:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

- Point-by-point comparative data attached — REQUIRED BY THE CONTRACT DOCUMENTS

<table>
<thead>
<tr>
<th>Reason for not providing specified item:</th>
</tr>
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<tbody>
<tr>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Similar Installation:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project:</td>
</tr>
<tr>
<td>Engineer:</td>
</tr>
<tr>
<td>Address:</td>
</tr>
<tr>
<td>Department:</td>
</tr>
<tr>
<td>Date Installed:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Proposed substitution affects other parts of Work:</th>
</tr>
</thead>
<tbody>
<tr>
<td>No        Yes; explain</td>
</tr>
</tbody>
</table>

| Savings to Owner for accepting substitute: $(         ) |
| (attach detailed, itemized estimate)                |

<table>
<thead>
<tr>
<th>Proposed substitute changes Contract Time:</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
</tr>
<tr>
<td>Yes [Add] [Deduct]</td>
</tr>
<tr>
<td>(clarify whether change is to Substantial Completion, Milestone, or time for readiness for final payment)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Supporting Data Attached:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drawings</td>
</tr>
<tr>
<td>Product Data</td>
</tr>
<tr>
<td>Samples</td>
</tr>
<tr>
<td>Tests</td>
</tr>
<tr>
<td>Reports</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
SUBSTITUTION REQUEST
(Continued)

☐ Substitute product, method, or procedure is subject to payment of licensing fee or royalty (check if “yes” and attach information)

☐ Substitute product, method, or procedure is patented or copyrighted (check if “yes” and attach information)

The undersigned certifies:
• Representations in the General Conditions and in Section 01 25 00, Substitution Procedures, regarding substitutions are valid.
• Same or better warranty and guarantee will be furnished for proposed substitution as for specified item.
• Same maintenance service and source of replacement parts, as applicable, is available.
• Proposed substitute will have no adverse effect on other trades and will not affect or delay Progress Schedule.
• Cost data as stated above is complete. Claims for additional costs or time related to accepted substitution which may subsequently become apparent are waived.
• Proposed substitute does not affect dimensions and functional clearances.
• Payment will be made for Engineer’s review and changes, if any, to the design and Contract Documents, and construction costs caused by the substitute.
• Coordination, installation, and changes in the Work as necessary for accepted substitution will be complete in all respects.

Submitted by:

Signed by:

Firm:

Address:

Telephone:

Attachments: ☐

ENGINEER’S REVIEW AND ACCEPTANCE (OR NON-ACCEPTANCE) WILL BE DOCUMENTED IN A FIELD ORDER OR CHANGE ORDER, AS APPROPRIATE.

Additional Comments: ☐ Contractor ☐ Subcontractor ☐ Supplier ☐ Manufacturer ☐ Engineer

☐ Other: ☐

Adapted from CSI Form No. 13.0B, 2004 edition
PRODUCT SUBSTITUTION CHECKLIST

Date: _______________________________  Re: _______________________________
Engineer Proj No.: ___________________  Manufacturer’s Project No.: ______________
Filing No.: __________________________  Contract For: _________________________

Item Equivalence:
☐ Is the submitted item equivalent to the specified item? _____________________________
☐ Does it serve the same function? _____________________________
☐ Does it have the same dimensions? _____________________________
☐ Does it have the same appearance? _____________________________
☐ Will it last as long? _____________________________
☐ Does it comply with the same codes, and standards and performance requirements? _________
☐ Has the item been used locally, and where are the projects? _____________________________
☐ Has a problem occurred with the item, and what was the remedy? _____________________________

Effect on the Project:
☐ Will the substitute affect other aspects of the construction? _____________________________
☐ Are any details affected and are changes required? _____________________________
☐ What is the cost of the changes? _____________________________
☐ Who pays for the required changes? _____________________________
☐ Are Contract Times affected? _____________________________

Effect on the Warranty:
☐ How does the proposed warranty differ from the specified warranty? _____________________________
☐ Does the manufacturer have a track record of standing behind the warranty? _____________________________

Adapted from CSI Form No. 20.3, 1998 edition
PART 1 – GENERAL

1.1 DESCRIPTION

A. Scope.
   1. This Section provides requirements which are in addition to provisions of the Section VIII General Conditions: Articles 9 and 10, as may be modified by the Section IX Supplementary Conditions, and includes:
      a. Requests for interpretation.
      b. Minor changes in the Work and Field Orders.
      c. Proposed Change Order Request.
      d. Proposed Change Orders.
      e. Approved Change Orders.

B. Submit Contract modification documents to ENGINEER, addressed to the contact person as specified in the preconstruction conference, and in accordance with Section X Standard Specifications: Section 01 31 26 – Electronic Communication Protocols.

C. Retain at CONTRACTOR’s office and at the Site complete copy of each Contract modification document and related documents, and ENGINEER’s response.

1.2 SUBMITTALS

A. Informational Submittals. Submit the following in accordance with the requirements of this Section:
   1. Request for Interpretation
      a. Submit a completed Request for Interpretation Form (attached to this Section) at least 20 days before the Work associated with the Request for Interpretation.
      b. Submit additional information as requested by the ENGINEER as soon as possible and within 10 days of the ENGINEER’s request.
      c. Submit Written Notification of a potential Contract Price or Contract Time change due to the ENGINEER’s response to a Request for Interpretation within 3 days of receipt of the response and prior to proceeding with Work associated with the Request for Interpretation.
   2. Written Notification of Contract Price or Contract Time change due to a Field Order
      a. Submit within 3 days of receipt of the Field Order and prior to proceeding with Work associated with the Field Order.
   3. Proposed Change Order
      a. Submit a completed Proposed Change Order Form and supporting documentation within 15 days of the Field Order or Request for
Information response resulting in change, and with a reasonable amount of time for evaluation prior to Work associated with the Proposed Change Order.

b. Submit additional information as requested by the ENGINEER as soon as possible and within 3 days of the ENGINEER’s request unless more time is allowed by the ENGINEER.

c. Submit a claim against the DEPARTMENT if parties do not agree on terms for a Proposed Change Order within 30 days of issuance of the Proposed Change Order or rejection of a Proposed Change Order.

d. Submit 3 signed original copies of the Approved Change Order within 5 days of receipt of the Change Order.

1.3 REQUESTS FOR INTERPRETATION

A. General.

1. Transmit written requests for interpretation to ENGINEER. CONTRACTOR may prepare and transmit requests for interpretation.

2. Prepare and transmit request for interpretation to obtain clarifications or interpretations of the Contract Documents. Report conflicts, errors, ambiguities, and discrepancies in the Contract Documents by requesting an interpretation in accordance with General Conditions.

3. Do not transmit request for interpretation when other form of communication is appropriate, such as CONTRACTOR’s submittals, requests for approvals of substitutes, notices, ordinary correspondence, or other form of communication. Improperly prepared or inappropriate requests for interpretation will be returned without response or action by ENGINEER.

4. Do not submit request for interpretation or clarification when:
   a. answer may be obtained by observations at the Site; or
   b. required information is clearly indicated in the Contract Documents; or
   c. required information is included in industry standards referenced in the Contract Documents or Supplier’s instructions that are consistent with the Contract Documents; or
   d. are reasonably inferable from any of foregoing.

5. Submit Requests for Interpretation such that the ENGINEER has a reasonable amount of time to respond before the CONTRACTOR must proceed with the Work associated with the Request for Interpretation. CONTRACTOR shall have sole financial responsibility for requests for interpretations or clarifications that are submitted late, out of sequence, or that are unnecessary.

B. Procedure.

1. Transmit requests for interpretation in accordance with Section X Standard Specifications: Section 01 31 26 – Electronic Communication Protocols, and requirements of this Section. Include with each request for interpretation a separate letter of transmittal and the Request for Interpretation Form included at the end of this Section.

2. ENGINEER will provide timely review of requests for interpretation. Allow sufficient time for review and response.
3. ENGINEER will maintain log of requests for interpretation. Upon request, copy of log will be transmitted to CONTRACTOR.

4. ENGINEER’s response to requests for interpretation will be transmitted in accordance with Section X Standard Specifications: Section 01 31 26 – Electronic Communication Protocols, and requirements of this Section. Each response to a request for interpretation will include a separate letter of transmittal.

5. ENGINEER’s written response to each request for interpretation will be distributed to:
   a. CONTRACTOR.
   b. DEPARTMENT.
   c. ENGINEER.

6. If ENGINEER requests additional information to make an interpretation, CONTRACTOR requesting the interpretation shall transmit the information requested within ten days, unless ENGINEER allows additional time, via correspondence referring to request for interpretation number.

7. Interpretations that One or Both Parties Believes Entails a Change to the Contract:
   a. If CONTRACTOR believes that a change in the Contract Price or Contract Times or other change to the Contract is required as a result of ENGINEER’s interpretation, so advise ENGINEER in writing within 3 days and before proceeding with the Work associated with the request for interpretation.
   b. If, after this initial communication, CONTRACTOR believes that change in Contract Price, Contract Times, both, or other relief with respect to the terms of the Contract is necessary, recourse shall be in accordance with the Contract Documents.

C. Preparation of Requests for Interpretation:
   1. Prepare each request for interpretation on the “Request for Interpretation” form included with this Section, or other form acceptable to ENGINEER.
   2. Number each request for interpretation as follows: Numbering system shall be the Contract number and designation followed by a hyphen and three-digit sequential number. Example: First request for interpretation on the general contract for project titled, “Contract A15” would be, “RFI No. A15-GC-001”.
   3. In space provided on form, describe the interpretation requested. Provide additional sheets as necessary. Include text and sketches as required in sufficient detail to describe the need for an interpretation.
   4. When applicable, request for interpretation shall include CONTRACTOR’s recommended resolution.

1.4 MINOR CHANGES IN THE WORK AND FIELD ORDERS

A. General:
   1. Field Orders, when required, will be initiated and issued by ENGINEER.
   2. Field Orders authorize minor variations in the Work but do not change the Contract Price or Contract Times.
3. Field Orders will be in the form of Engineers Joint Contract Documents Committee document EJCDC® C-942, “Field Order” included with this Section.

4. ENGINEER will maintain a log of Field Orders issued.

B. Procedure.

1. Field Orders will be transmitted in accordance with Section X Standard Specifications: Section 01 31 26 – Electronic Communication Protocols, and requirements of this Section. Each Field Order will include a separate letter of transmittal.

2. Each Field Order will be distributed to:
   a. CONTRACTOR.
   b. DEPARTMENT.
   c. ENGINEER.

3. Field Orders that One or Both Parties Believes Entails a Change to the Contract Price or Contract Times:
   a. If CONTRACTOR or DEPARTMENT believes that a change in the Contract Price or Contract Times or other change to the Contract is required as a result of a Field Order, so advise ENGINEER in writing within 3 days and before proceeding with the Work associated with the Field Order in accordance with Section VIII General Conditions: Article 8.10.
   b. If, after this initial communication, CONTRACTOR believes that change in Contract Price, Contract Times, both, or other relief with respect to the terms of the Contract is necessary, recourse shall be in accordance with the General Conditions.

4. If the Field Order is unclear, submit request for interpretation.

1.5 PROPOSED CHANGE ORDER REQUEST

A. General:

1. Proposed Change Order Request may be initiated by ENGINEER or DEPARTMENT in accordance with Section VIII General Conditions: Article 9.1

2. Proposed Change Order Request are for requesting the effect on the Contract Price and the Contract Times and other information relative to contemplated changes in the Work. Proposed Change Order Request do not authorize changes or variations in the Work, and do not change the Contract Price or Contract Times or terms of the Contract.

3. Proposed Change Order Request will be furnished using the “Proposed Change Order Request” form included with this Section.

B. Procedure.

1. Proposed Change Order Request will be transmitted in accordance with Section X Standard Specifications: Section 01 31 26 – Electronic Communication Protocols, and requirements of this Section. Each Proposed Change Order Request will include a separate letter of transmittal.
2. Each signed Proposed Change Order Request will be transmitted to:
   a. CONTRACTOR.
   b. DEPARTMENT.
   c. ENGINEER.
3. Transmit Requests for Interpretation to clarify conflicts, errors, ambiguities, and discrepancies in Proposed Change Order Requests.
4. Upon receipt of Proposed Change Order Request, CONTRACTOR shall prepare and transmit to ENGINEER a Proposed Change Order, in accordance with the Contract Documents, for the proposed Work described in the Proposed Change Order Request.

1.6 PROPOSED CHANGE ORDERS

A. General.
1. Prepare and transmit written Proposed Change Order to ENGINEER in response to each Proposed Change Order Request; or when CONTRACTOR believes a change in the Contract Price or Contract Times or other change to the terms of the Contract is required; or to appeal an initial decision by ENGINEER concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; contest a set-off against payment due; or seek other relief under the General Conditions.

B. Procedure.
1. Prepare and transmit Proposed Change Order within time limits indicated in the General Conditions, as may be modified by the Supplementary Conditions.
2. Transmit Change Proposals in accordance with Section X Standard Specifications: Section 01 31 26 – Electronic Communication Protocols, and requirements of this Section. Include with each Proposed Change Order all required supporting documentation and a separate letter of transmittal.
3. ENGINEER’s Review and Requests for Interpretation:
   a. ENGINEER will review and act on each Proposed Change Order in accordance with, and within the time limits indicated in, the General Conditions, as may be modified by the Supplementary Conditions.
   b. When, ENGINEER requests additional information to render a decision, submit required information within three days of receipt of ENGINEER’s request, unless ENGINEER allows more time. Submit the required information via correspondence that refers to the specific Proposed Change Order number.
   c. DEPARTMENT shall transmit to ENGINEER such comments, if any, that DEPARTMENT has on the Proposed Change Order within 30 days of DEPARTMENT’s receipt of the Proposed Change Order.
   d. ENGINEER will render a written decision on the Proposed Change Order.
   e. ENGINEER’s response to Proposed Change Order will be transmitted in accordance with Section X Standard Specifications: Section 01 31 26 – Electronic Communication Protocols, and requirements of this Section,
the Section VIII General Conditions, and the Section IX Supplementary Conditions.

4. ENGINEER’s response to each Proposed Change Order will be distributed to:
   a. CONTRACTOR.
   b. DEPARTMENT
   c. ENGINEER.

5. If Proposed Change Order is recommended for approval by ENGINEER and is approved by DEPARTMENT, an Approved Change Order will be issued or, when applicable, an appropriate use of contingency allowance will be authorized by DEPARTMENT.

6. If parties do not agree on terms for the change, DEPARTMENT or CONTRACTOR may file a Claim against the other, in accordance with the General Conditions, as may be modified by the Supplementary Conditions.

C. Preparation of Change Proposals:

1. Each Proposed Change Order shall be submitted on the “Proposed Change Order” form included with this Section, or other form acceptable to ENGINEER.

2. Number each Proposed Change Order as follows: Numbering system shall be the Contract number and designation followed by a hyphen and three-digit sequential number. Example: First Change Proposal for the general contract for project named “Contract A15” would be, “Proposed Change Order No. A15-GC-001”.

3. In space provided on Change Proposal form:
   a. Describe scope of each proposed change. Include text and sketches on additional sheets as required to provide detail sufficient for ENGINEER’s review and response. If a change item is submitted in response to Proposed Change Order Request, write in as scope, “In accordance with Proposed Change Order Request No.” followed by the Proposal Request number. Submit written clarifications, if any, to scope of change.
   b. Submit justification for each proposed change. If change is in response to Proposed Change Order Request, write in as justification, “In accordance with Proposed Change Order Request No.” followed by the proposed change order request number.
   c. List the total change in the Contract Price and Contract Times for each separate change item included in the Proposed Change Order Request.

4. Unless otherwise directed by ENGINEER, attach to the Proposed Change Order detailed breakdowns of pricing (Cost of the Work and CONTRACTOR’s fee) including:
   a. List of Work tasks to accomplish the change.
   b. For each task, labor cost breakdown including labor classification, total hours per labor classification, and hourly cost rate for each labor classification.
   c. Construction equipment and machinery to be used, including manufacturer, model, and year of manufacture, and number of hours for each.
d. Detailed breakdown of cost of materials and equipment to be incorporated into the Work, including quantities, unit costs, and total cost, with Supplier’s written quotations.

d. Breakdowns of the Cost of the Work and fee for Subcontractors, including labor, construction equipment and machinery, and materials and equipment incorporated into the Work, other costs, and Subcontractor fees (e.g., overhead and profit).

f. Breakdown of other costs eligible, in accordance with the General Conditions and the Supplementary Conditions under “Cost of the Work” provisions.

g. Other information required by ENGINEER.

h. CONTRACTOR’s fees applied to eligible CONTRACTOR costs and eligible Subcontractor costs.

i. The change order backup shall be completed using the NYS Standard MURK 2018 (or current) format. DEPARTMENT will provide electronic version for CONTRACTOR use.

1.7 APPROVED CHANGE ORDERS

A. General:

1. Approved Change Orders will be recommended by ENGINEER (when required by the General Conditions) and will be approved and signed by DEPARTMENT and CONTRACTOR to authorize additions, deletions, or revisions to the Work, or changes to the Contract Price or Contract Times.

2. Approved Change Orders will be in the form of EJCDC® C-941, “Change Order”.

B. Procedure.

1. Approved Change Orders for signature by CONTRACTOR will be transmitted in accordance with Section X Standard Specifications: Section 01 31 26 – Electronic Communication Protocols, and requirements of this Section. Each Change Order will include a separate letter of transmittal. CONTRACTOR shall print three originals of Approved Change Order for CONTRACTOR’s signature.

2. CONTRACTOR shall promptly sign each original Approved Change Order and, within five days of receipt, return all originals to ENGINEER.

3. ENGINEER will sign each original Approved Change Order and forward them to DEPARTMENT.

4. After approval and signature by DEPARTMENT, original Approved Change Orders will be distributed as indicated below.

5. Original, signed Approved Change Orders will be distributed as follows:
   a. CONTRACTOR: One original.
   b. DEPARTMENT: One original.
   c. ENGINEER: One original.
PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.1 ATTACHMENTS

A. The forms listed below, following this Section’s “End of Section” designation, are part of this Specifications Section:
   1. Request for Interpretation form (one page).
   2. Proposed Change Order Request (one page).
   3. Proposed Change Order (one page).
   4. Field Order EJCDC C-942

++ END OF SECTION +
REQUEST FOR INTERPRETATION

DEPARTMENT:

Project Name: ________________________________

Contractor: ________________________________  RFI No. ________________________________
Date Transmitted: _____________________________  Date Received: ___________________________
Date Response Requested: _______________________  Date Response Transmitted: ________________

Subject: ________________________________
Specification Section and Paragraph: ________________________________
Drawing References: ________________________________

INTERPRETATION REQUESTED:

Signature: ________________________________  Date: ________________________________

ENGINEER’S RESPONSE:

Signature: ________________________________  Date: ________________________________
PROPOSED CHANGE ORDER REQUEST

DEPARTMENT:

Project Name: ________________________________________________________________

Proposal Request No.: _________ Date: ________________________________

Contract Name and No.: ______________________________________________________

Contractor: ________________________________________________________________

Other Contracts Involved in Proposed Change: __________________________________

TO CONTRACTOR: Please submit a complete Change Proposal for the proposed modifications described below. If the associated Change Proposal is approved, a Change Order or allowance authorization will be issued to authorize adjustment so the scope of the Work. This Proposal Request is not a Change Order, Work Change Directive, Field Order, or an authorization to proceed with the proposed Work described below.

SCOPE OF PROPOSED WORK:

1. Item:
2. Item:
3. Item:

Proposal requested by: _______________________________________________________

Signature of Requestor: ______________________________________________________
PROPOSED CHANGE ORDER

DEPARTMENT:

Project Name: ____________________________________________________________

Change Proposal No.: ________________________   Date: __________________________

Submitted in Response to Proposal Request No.: _________________________________

Contract Name and No.: ______________________________________________________

Contractor: ________________________________

Subject: ______________________________________________________________________

________________________________________________________________________________

The following changes to the Contract are proposed:

SCOPE OF WORK: (attach and list supporting information as required)

1. Item:
2. Item:

JUSTIFICATION:

1. Item:
2. Item:

CHANGES IN CONTRACT PRICE AND CONTRACT TIMES:

We propose that the Contract Price and Contract Times be changed as follows:

For Contract Price, attach detailed cost breakdowns for Contractor and Subcontractors, Supplier quotations, and other information required.

For the Contract Times, state increase, decrease, or no change to Contract Times for Substantial Completion, readiness for final payment, and Milestones, if any. If increase or decrease, state specific number of days for changes to the Contract Times.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
<th>Contract Times (days)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Substantial</td>
</tr>
<tr>
<td>1. Item</td>
<td>$0.00</td>
<td>0</td>
</tr>
<tr>
<td>2. Item</td>
<td>$0.00</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total This Change Proposal</strong></td>
<td><strong>$0.00</strong></td>
<td><strong>0</strong></td>
</tr>
</tbody>
</table>

Changes to Milestones, if any: ________________________________________________

Contractor represents that supporting data attached to this Change Proposal are accurate and complete. The requested time or price adjustment indicated in this Change Proposal is the entire adjustment to which Contractor believes it is entitled as a result of the proposed change(s) indicated herein.

Change Proposal by: ________________________________________________________

Signature of Proposer: ______________________________________________________
Contractor is hereby directed to promptly execute this Field Order, issued in accordance with General Conditions Paragraph 9.2, for minor changes in the Work without changes in Contract Price or Contract Times. If Contractor considers that a change in Contract Price or Contract Times is required, submit written notification in accordance with Paragraph 8.10 within 3 days and provide documentation within 15 days in a Proposed Change Order to Engineer.

Reference: ____________________________

<table>
<thead>
<tr>
<th>Specification(s)</th>
<th>Drawing(s) / Detail(s)</th>
</tr>
</thead>
</table>

Description:

Attachments:

______________________________  ______________________________
ISSUED:  RECEIVED:  

By: ___________________________  By: ___________________________
   Engineer (Authorized Signature)  Contractor (Authorized Signature)

Title: __________________________  Title: __________________________

Date: ___________________________  Date: ___________________________

Copy to: DEC Project Manager and DEC Designated Representative
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PART 1 – GENERAL

1.1 DESCRIPTION

A. Scope:
1. CONTRACTOR shall prepare and submit to ENGINEER for acceptance a Bid Breakdown (Schedule of Values) that allocates cost to each item and sub-item of the Work. The Bid Breakdown list of items shall include the Bid Items and sub-items as identified by Section XII, Measurement for Payment. CONTRACTOR shall add sub-items as necessary to break down the Work and costs sufficiently and as requested by the ENGINEER.
2. Prepare the Bid Breakdown (also called Schedule of Values) in accordance with Section III Bidding Information and Requirements – Article 12; Section VIII General Conditions – Article 1.4, 1.6, and 13.1; Section XII Measurement for Payment; and this Section.
3. Upon request of ENGINEER, support values with data that substantiate their correctness.
4. Submit preliminary Bid Breakdown to ENGINEER for initial review. CONTRACTOR shall incorporate ENGINEER’s comments into the Bid Breakdown and resubmit to ENGINEER. ENGINEER may require corrections and re-submittals until Bid Breakdown is acceptable.
5. The Bid Breakdown may be used as a basis for negotiating price of changes, if any, in the Work.
6. Bid Breakdown and the Progress Schedule updates specified in Section X Standard Specifications: Section 01 32 16 –Progress Schedule, will be basis for preparing each Application for Payment.
7. The terms “Schedule of Values”, “Bid Breakdown”, and “Bid Breakdown of Items” shall be considered equivalent.

1.2 SUBMITTALS

A. Preliminary Bid Breakdown (Action Submittal)
1. Submit to ENGINEER the Preliminary Bid Breakdown (Schedule of Values) in accordance with Section III Bidding Information and Requirements: Article 5 and 12, within 14 days of the date of the Notice of Intent to Award Letter from the DEPARTMENT.
2. Submit in accordance with Section X Standard Specifications: Section 01 31 26 – Electronic Communication Protocols.

B. Final Bid Breakdown (Action Submittal)
1. Submit to ENGINEER the final Bid Breakdown (Schedule of Values) after addressing comments from the DEPARTMENT and ENGINEER. The Bid
Breakdown will serve as the basis for progress payments in accordance with Section VIII General Conditions: Article 13.

2. The final Bid Breakdown shall be submitted no later than 20 days following start of Work at the site.

3. ENGINEER will not accept Applications for Payment without an acceptable Bid Breakdown.

C. Updated Bid Breakdowns (Action Submittal)
   1. When required by ENGINEER, promptly submit an updated Bid Breakdown to include cost breakdowns for changes in the Contract Price

1.3 BID BREAKDOWN FORMAT AND CONTENT

A. Organization and Major Elements of the Bid Breakdown
   1. The DEPARTMENT will provide a template for the Bid Breakdown.

   2. Organize the Bid Breakdown in accordance with Section III Bidding Information and Requirements: Article 12; Section VIII General Conditions: Article 1.4, 1.6, and 13.1; Section XII Measurement for Payment; and this Section:
      a. Organize the Bid Breakdown by the Bid Items and sub-items identified in Section XII Measurement for Payment.
      b. Label each row in the Bid Breakdown with the appropriate Bid Item number. Include an amount for each row.
      c. List sub-items of major items as identified in Section XII, Measurement for Payment for each item on the Bid Form. Add sub-items as necessary to break down the Work and costs sufficiently and as requested by the ENGINEER.

   3. Include in the Bid Breakdown unit price payment items with their associated quantity. Provide in the Bid Breakdown detailed breakdown of labor, equipment, materials and other direct costs (ODCs) for each unit prices when required by ENGINEER.

B. Requirements for preliminary Bid Breakdown and final Bid Breakdown are:
   1. Subcontracted Work:
      a. Bid Breakdown shall show division of Work between CONTRACTOR and Subcontractors.
      b. Line items for Work to be done by Subcontractor shall include the word, “(SUBCONTRACTED)”.

   2. Apportionment between Materials and Equipment, and Installation:
      a. Bid Breakdown shall include breakdown of costs for materials and equipment, installation, and other costs used in preparing the Bid by CONTRACTOR and each Subcontractor.
      b. List purchase and delivery costs for materials and equipment for which CONTRACTOR may apply for payment as stored materials, when required by the ENGINEER.
3. Sum of individual values shown on the Bid Breakdown shall equal the total of associated payment item. Sum of payment item totals in the Bid Breakdown shall equal the Contract Price.

4. Overhead and Profit: Include in each line item a directly proportional amount of CONTRACTOR’s overhead and profit. Do not include overhead and profit as separate item(s).

5. Include a separate line for each sub-item under both lump sum and unit price items in accordance with Section XII Measurement for Payment.

6. Project Record Documents:
   a. Include in the Bid Breakdown a line item with appropriate value for Project record documents for each Bid Item where necessary.
   b. If adequate record documents are maintained, up to 50 percent of the value of the record documents line item will be eligible for payment, spread evenly over those progress payments in which construction at the Site is performed.
   c. Remainder of Project record documents line item will be eligible for payment when complete record documents are submitted in accordance with the General Conditions. If record documents submitted are unsatisfactory to ENGINEER, amount may be reduced via set-offs in accordance with the Contract Documents.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

+++ END OF SECTION +++
PART 1 – GENERAL

1.1 DESCRIPTION

A. Scope:
   1. A pre-construction conference will be held for the Project in accordance with Section VIII General Conditions: Article 1.2.
   2. CONTRACTOR shall attend the conference prepared to discuss all items on the pre-construction conference agenda.
   3. ENGINEER will distribute an agenda, preside at conference, and prepare and distribute minutes to all conference participants and others as requested.

B. Purpose of Pre-construction Conference:
   1. Purpose of conference is to designate responsible personnel, establish working relationships, discuss preliminary schedules submitted by CONTRACTOR, and formalize procedures for the preparation and review administrative and procedural requirements for the Project.
   2. Review and comply with the requirements of the General Conditions.
   3. Review CONTRACTOR’s plans for complying with the requirements of Article 5 of the General Conditions.
   4. Discuss any conflicts, errors or discrepancies that CONTRACTOR has discovered by review of the Contract Documents.
   5. Unless otherwise indicated in the Contract Documents or otherwise agreed to by the entities involved, Site mobilization meeting will be part of the pre-construction conference.

1.2 PREPARATION FOR PRE-CONSTRUCTION CONFERENCE

A. Date, Time, and Location:
   1. Conference will be held no later than twenty calendar days after the effective Date of the Agreement, but before the CONTRACTOR starts the Work.
   2. Department will establish the date, time, and location of conference and notify the interested and involved entities.

B. CONTRACTOR shall furnish information required and contribute appropriate items for discussion at the pre-construction conference.

C. Handouts for Pre-Construction Conference:
   1. CONTRACTOR shall bring to the conference the following, with sufficient number of copies for each attendee:
      a. Preliminary Progress Schedule, as submitted to ENGINEER.
      b. Preliminary Schedule of Submittals, as submitted to ENGINEER.
c. Preliminary Bid Breakdown, as submitted to ENGINEER.
d. Listing planned Subcontractors and Suppliers and their general scope of Work.
e. List of emergency contact information.

1.3 REQUIRED ATTENDEES

A. Representative of each entity attending the conference shall be authorized to act on that entity’s behalf.

B. CONTRACTOR Attendance: Conference shall be attended by CONTRACTOR’s:
   1. Project manager.
   2. Site superintendent
   3. Site Health and Safety Officer
   4. Project managers for major Subcontractors, and major equipment Suppliers as CONTRACTOR deems appropriate.

C. Other attendees will be representatives of:
   1. DEPARTMENT.
   2. ENGINEER.
   3. Authorities having jurisdiction over the Work, if available.
   4. Utility owners, as applicable.
   5. Others as requested by DEPARTMENT, CONTRACTOR, or ENGINEER.

1.4 AGENDA

A. Preliminary Agenda: Be prepared to discuss in detail the topics indicated below. Revisions, if any, to the agenda below will be furnished to required attendees prior to the pre-construction conference.
   1. Procedural and Administrative:
      a. Personnel and Teams:
         1) Designation of roles and personnel.
         2) Limitations of authority of personnel, including personnel who will sign Contract modifications and make binding decisions.
         3) Subcontractors and Suppliers in attendance.
         4) Authorities having jurisdiction.
      b. Procedures for communications and correspondence, including electronic communication protocols.
      d. Subcontractors and Suppliers.
         1) Lists of proposed Subcontractors and Suppliers.
      e. The Work and Scheduling:
         1) General scope of the Work.
         2) Contract Times, including Milestones (if any).
         3) Phasing and sequencing.
         4) Preliminary Progress Schedule.
         5) Critical path activities.
f. Safety:
   1) Responsibility for safety.
   2) Contractor’s safety representative.
   3) Emergency procedures and accident reporting.
   4) Emergency contact information.
   5) Confined space entry permits.
   6) Hazardous materials communication program.
   7) Impact of Project on public safety.

g. Permits.

h. Review of insurance requirements and insurance claims.

i. Coordination:
   1) Project coordination, and coordination among contractors.
   2) Construction coordinator.
   3) Coordination with DEPARTMENT’s operations.
   4) Progress meetings.
   5) Preliminary Schedule of Submittals.
   6) Procedures for furnishing and processing submittals.
   7) Work not eligible for payment until submittals are approved or accepted (as required).
   8) Construction photographic documentation.

k. Substitutes and “Or-Equals”:
   1) Product options.
   2) Procedures for proposing “or-equals”.
   3) Procedures for proposing substitutes.

l. Contract Modification Procedures
   1) Requests for interpretation
   2) Written clarifications
   3) Field Orders
   4) Proposal Requests
   5) Change Proposals
   6) Work Change Directives.
   7) Change Orders.
   8) Procedure for Claims and dispute resolution

m. Payment:
   1) DEPARTMENT’s Project financing and funding, as applicable.
   2) DEPARTMENT’s tax-exempt status.
   3) Preliminary Schedule of Values
   4) Procedures for measuring for payment.
   5) Retainage.
   6) Progress payment procedures.
   7) Prevailing wage rates and payrolls.

n. Testing and inspections, including notification requirements.

o. Disposal of demolition materials.

p. Record documents.

q. Preliminary Discussion of Contract Closeout:
   1) Procedures for Substantial Completion.
   2) Contract closeout requirements.
3) Correction period.
4) Duration of bonds and insurance.

2. Site Mobilization (if not covered in a separate meeting):
   a. Working hours and overtime.
   b. Field offices, storage trailers, and staging areas.
   c. Temporary facilities.
   d. Temporary utilities and limitations on utility consumption (where applicable).
   e. Utility company coordination (if not done as a separate meeting).
   f. Access to Site, access roads, and parking for construction vehicles.
   g. Maintenance and protection of traffic.
   h. Use of Site and premises.
   i. Protection of property.
   j. Security.
   k. Temporary controls, such as sediment and erosion controls, noise controls, dust control, storm water controls, and other such measures.
   l. Site barriers and temporary fencing.
   m. Storage of materials and equipment.
   n. Reference points and benchmarks; surveys and layouts.
   o. Site maintenance during the Project.
   q. Restoration.

3. General discussion and questions.
4. Next meeting.
5. Site visit, if required.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)
PART 1 – GENERAL

1.1 DESCRIPTION

A. Scope:
   1. Progress meetings will be held throughout the Project. CONTRACTOR shall attend each progress meeting prepared to discuss in detail all items on the agenda.
   2. ENGINEER will preside at progress meetings and will prepare and distribute minutes of progress meetings to all meeting participants and others as requested.

1.2 PREPARATION FOR PROGRESS MEETINGS

A. Date and Time:
   1. Regular Meetings: Bi-weekly, occurring twice per month, on a day and time agreeable to DEPARTMENT, ENGINEER, and CONTRACTOR.
   2. Other Meetings: Weekly meetings may be requested in accordance with the Section VIII General Conditions: Article 5.36, to discuss and/or resolve matters concerning various elements of the Work.

B. Location:
   1. CONTRACTOR’s field office at the Site or other location mutually agreed upon by DEPARTMENT, CONTRACTOR, and ENGINEER.

C. Handouts:
   1. CONTRACTOR shall bring to each progress meeting not less than eight copies of each of the following:
      a. List of Work accomplished since the previous progress meeting.
      b. Up-to-date Progress Schedule.
      c. Up-to-date Schedule of Submittals.
      d. Health and Safety/Air Monitoring Summary.
      e. Quality control testing including analytical testing Summary.
      f. Detailed “look-ahead” schedule of Work planned through the next progress meeting, with specific starting and ending dates for each activity, including shutdowns, deliveries of important materials and equipment, Milestones (if any), and important activities affecting the DEPARTMENT, Project, and Site.
      g. When applicable, list of upcoming, planned time off (with dates) for personnel with significant roles on the Project, and the designated contact person in their absence.
2. Engineer shall bring to each progress meeting not less than eight (-8-) copies of each of the following:
   a. Up-to-date Schedule of Submittals including identification of outstanding critical submittals.
   b. Up-to-date Status tracking logs for RFI, PCOs, and Field Orders.

1.3 REQUIRED ATTENDANCE

A. Representatives present for each entity shall be authorized to act on that entity’s behalf.

B. Required Attendees:
   1. CONTRACTOR:
      a. Project manager.
      b. Site superintendent.
      c. Safety representative.
      d. When needed for the discussion of a particular agenda item, representatives of Subcontractors and Suppliers shall attend meetings.
   2. Construction coordinator (if any).
   3. ENGINEER:
      a. Project manager or designated representative
      b. Others as required by ENGINEER.
   4. Department’s representative(s), as required.
   5. Testing and inspection entities, as required.
   6. Others, as appropriate.

1.4 AGENDA

A. Preliminary Agenda: Be prepared to discuss in detail the topics listed below. Revised agenda, if any, will be furnished to CONTRACTOR prior to first progress meeting. Progress meeting agenda may be modified by ENGINEER during the Project as required.
   1. Safety
   2. Review, comment, and amendment (if required) of minutes of previous progress meeting.
   3. Review of progress since the previous progress meeting.
   4. Planned progress through next progress meeting.
   5. Review of Progress Schedule
      a. Contract Times, including Milestones (if any)
      b. Critical path.
      c. Schedules for fabrication and delivery of materials and equipment.
      d. Corrective measures, if required.
   6. Submittals:
      b. Review revisions to Schedule of Submittals.
   7. Contract Modifications (Status Tracking Log as maintained by ENGINEER)
      a. Requests for Interpretation.
b. Field Orders.
c. Proposed Change Orders.
d. Approved Change Orders.
e. Claims.

8. Applications for progress payments status
8. Problems, conflicts, and observations.
9. Quality standards, testing, and inspections.
10. Coordination between parties.
11. Site management issues, including access, security, maintenance and protection of traffic, maintenance, cleaning, and other Site issues.
13. Construction photographic documentation, as applicable.
14. Record documents status, as applicable.
15. Punch list status, as applicable.
16. Other business.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

++ END OF SECTION ++
SECTION 01 31 26
ELECTRONIC COMMUNICATION PROTOCOLS

PART 1 – GENERAL

1.1 DESCRIPTION

A. Scope:
   1. This Section establishes the procedures with which the parties will comply regarding transmission or exchange of electronic data for the Project.
   2. CONTRACTOR shall provide labor, materials, tools, equipment, services, utilities, and incidentals shown, specified, and required for complying with this Section throughout the Project.
   3. This Section does not supersede the General Conditions, as may be modified by the Supplementary Conditions, regarding transmitting of the Contract Documents to CONTRACTOR after the Effective Date of the Contract.
   4. In addition to the requirements of this Section, comply with requirements for exchange of electronic data in the following:
      a. Section X Standard Specifications: Section 01 32 16 – Progress Schedule.
      b. Section X Standard Specifications: Section 01 32 33 – Photographic Documentation.
      c. Section X Standard Specifications: Section 01 33 00 – Submittal Procedures.
      d. Section X Standard Specifications: Section 01 78 39 – Project Record Documents.

B. Coordination:
   1. CONTRACTOR shall require all Subcontractors and Suppliers to comply with the electronic communication protocols established in this Section.

C. Related Sections:
   1. Section X Standard Specifications: Section 01 32 16 – Progress Schedule.
   2. Section X Standard Specifications: Section 01 32 33 – Photographic Documentation.
   3. Section X Standard Specifications: Section 01 33 00 – Submittal Procedures.
   4. Section X Standard Specifications: Section 01 78 39 – Project Record Documents.

1.2 TERMINOLOGY

A. The following words or terms are not defined but, when used in this Section, have the following meaning:
   1. “Electronic data” means information, communications, drawings, or designs created or stored for the Project in electronic or digital form.
   2. “Confidential information” means electronic data that the transmitting party
has designated as confidential and clearly marked with an indication such as “Confidential”, “Business Proprietary”, or similar designation.

3. “Written” or “in writing” means any and all communications, including without limitation a notice, consent, or interpretation, prepared and sent to an address provided in the Contract Documents or otherwise agreed upon by the parties and ENGINEER using a transmission method sent forth in this Section that allows the recipient to print or store the communication. Communications transmitted electronically are presumed received when sent in conformance with this Paragraph 1.2.A.3.

1.3 TRANSMISSION OF ELECTRONIC DATA

A. Transmission of electronic data constitutes a warrant by the transmitting party to the receiving party that the transmitting party is one or more of the following:
   1. The copyright owner of the electronic data.
   2. Has permission from the copyright owner to transmit the electronic data for its use on the Project.
   3. Is authorized to transmit confidential information.

B. Receiving party agrees to keep confidential information confidential and not to disclose it to another person except to (1) its employees, (2) those who need to know the content of the confidential information to perform services or construction solely and exclusively for the Project, or (3) its Consultants, Contractors, Subcontractors, and Suppliers whose contracts include similar restrictions on the use of electronic data and confidential information.

C. Transmitting party does not convey any right in the electronic data or in the software used to generate or transmit such data. Receiving party may not use electronic data unless permission to do so is provided in the Contract Documents, or in a separate license.

D. Unless otherwise granted in a separate license, receiving party’s use, modification, or further transmission of electronic data, as provided the Contract Documents, is specifically limited to the design and construction of the Project in accordance with this Section, and nothing contained in this Section conveys any other right to use the electronic data for any other purpose.

E. Means of Transmitting Electronic Data: Unless otherwise indicated in Table 01 31 26-A of this Section or elsewhere in the Contract Documents, transmission of electronic data for the Project will generally be via:
   1. E-mail and files attached to e-mail. Maintain e-mail system capable of transmitting and receiving files not less than 20 megabytes (MB) file size.

1.4 ELECTRONIC DATA PROTOCOLS

A. Comply with the data formats, transmission methods, and permitted uses set forth in Table 01 31 26-A, Electronic Data Protocol Table, below, when transmitting or using
electronic data on the Project. Where a row in the table has no indicated means of transmitting electronic data, use for such documents only printed copies transmitted to the receiving party via appropriate delivery method.

TABLE 01 31 26-A
ELECTRONIC DATA PROTOCOL TABLE (E-MAIL ATTACHMENTS)

<table>
<thead>
<tr>
<th>Electronic Data</th>
<th>Data Format</th>
<th>Transmitting Party</th>
<th>Transmission Method</th>
<th>Receiving Party</th>
<th>Permitted Uses</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.4.A.1. Project communications</td>
<td></td>
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<tr>
<td>General communications &amp; correspondence</td>
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<td>D, E, C</td>
<td>EM, EMA</td>
<td>D, E, C</td>
<td>R</td>
<td></td>
</tr>
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<td>Meeting notices and agendas</td>
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<td>E</td>
<td>EM, EMA</td>
<td>D, C</td>
<td>R</td>
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<td>EM, EMA</td>
<td>D, C</td>
<td>R</td>
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<tr>
<td>1.4.A.2. Contractor's submittals to Engineer</td>
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<tr>
<td>Shop Drawings</td>
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<td>C</td>
<td>EMA</td>
<td>E</td>
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<td>(1)</td>
</tr>
<tr>
<td>Product data</td>
<td>PDF</td>
<td>C</td>
<td>EMA</td>
<td>E</td>
<td>M (1)</td>
<td>(1)</td>
</tr>
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<td>Informational and closeout submittals:</td>
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<td>EMA</td>
<td>E</td>
<td>M (1)</td>
<td>(1)</td>
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<td>Documentation of delivery of maintenance materials submittals</td>
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<td>C</td>
<td>EMA</td>
<td>E</td>
<td>M (1)</td>
<td></td>
</tr>
<tr>
<td>1.4.A.3. Engineer’s return of reviewed submittals to Contractor</td>
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<tr>
<td>Shop Drawings</td>
<td>PDF</td>
<td>E</td>
<td>EMA</td>
<td>O., C</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>Product data</td>
<td>PDF</td>
<td>E</td>
<td>EMA</td>
<td>O., C</td>
<td>R</td>
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<tr>
<td>Informational and closeout submittals:</td>
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<td>EMA</td>
<td>O., C</td>
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<td>Documentation of delivery of maintenance materials submittals</td>
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<td>EMA</td>
<td>O., C</td>
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<tr>
<td>1.4.A.4. Contract Modifications Documents</td>
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<tr>
<td>Requests for interpretation to Engineer</td>
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<td>C, D</td>
<td>EMA</td>
<td>E</td>
<td>M (1)</td>
<td>(1)</td>
</tr>
<tr>
<td>Engineer’s interpretations (RFI responses)</td>
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<td>EMA</td>
<td>C, D</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>Engineer's clarifications to Contractor</td>
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<td>E</td>
<td>EM, EMA</td>
<td>C, D</td>
<td>R</td>
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<tr>
<td>Engineer's issuance of Field Orders</td>
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<td>C, D</td>
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<tr>
<td>Potential Change Orders</td>
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<td>C</td>
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<td>Change Proposals – submitted to Engineer</td>
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<td>EMA</td>
<td>D, E</td>
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<td>Change Proposals – Engineer’s response</td>
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<td>E</td>
<td>EMA</td>
<td>C, D</td>
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<td></td>
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<td>Change Orders (for Contractor signature)</td>
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<td>EMA</td>
<td>C</td>
<td>R</td>
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<td>1.4.A.5. Applications for Payment</td>
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<tr>
<td>1.4.A.6. Claims and other notices</td>
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<tr>
<td>1.4.A.7. Closeout Documents</td>
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<tr>
<td>Record drawings (As-Builts)</td>
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<td>EMA</td>
<td>E, D</td>
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<td>(5)</td>
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<tr>
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<td>EMA</td>
<td>E, D</td>
<td>M (5)</td>
<td>(5)</td>
</tr>
</tbody>
</table>

B. Key to Electronic Data Protocol Table:

Data Format:

- EM .msg, .htm, .txt, .rtf, e-mail text
- W .docx, Microsoft® Word 2007 or later
- EX .xlsx, Microsoft® Excel 2007 or later
- PDF .pdf, Portable Document Format
- DWG .dwg, Autodesk AutoCAD 2018 drawing.
Transmitting Party:

D  DEPARTMENT  
C  CONTRACTOR  
E  ENGINEER  

Transmission Method:

EM  Via e-mail  
EMA  As an attachment to an e-mail transmission  
CD  Delivered via compact disc  
PW  Posted to Project website  
FTP  FTP transfer to receiving FTP server  

Receiving Party:

D  DEPARTMENT  
C  CONTRACTOR  
E  ENGINEER  

Permitted Uses:

S  Store and view only  
R  Reproduce and distribute  
I  Integrate (incorporate additional electronic data without modifying data received)  
M  Modify as required to fulfill obligations for the Project  

Notes:

(1) Modifications by ENGINEER to CONTRACTOR’s submittals and requests for interpretations are limited to printing out, marking-up, and adding comment sheets.  
(2) May be distributed only to affected Subcontractors and Suppliers. Print out, sign document, and return executed (“wet”) signatures to ENGINEER after Department Approval.  
(3) Submit printed Applications for Payment with original (“wet”) signatures.  
(4) Submit notices, including Claims, in accordance with the notice provisions of the General Conditions.  
(5) Submit record drawings in native CAD format indicated when CONTRACTOR has executed ENGINEER’s standard agreement for release of electronic files. In addition, always submit record drawings as a PDF file. Comply with requirements of Section 01 78 39, Project Record Documents.
PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

++ END OF SECTION ++
PART 1 – GENERAL

1.1 DESCRIPTION

A. Scope:
   1. Prepare and submit Progress Schedules in accordance with the Section VIII General Conditions (as may be modified by Section IX Supplementary Conditions) and this Section, unless otherwise accepted by ENGINEER.
   2. Maintain and update Progress Schedules. Submit updated Progress Schedules as specified in this Section unless otherwise directed by ENGINEER.
   3. ENGINEER’s acceptance of the Progress Schedule, and comments or opinions concerning the activities in the Progress Schedule shall not control CONTRACTOR’s independent judgment relative to means, methods, techniques, sequences, and procedures of construction. CONTRACTOR is solely responsible for complying with the Contract Times.

1.2 SUBMITTALS

A. Informational Submittals: Submit the following:
   1. Interim Progress Schedule:
      a. Submit an interim Progress Schedule indicating CONTRACTOR’s anticipated schedule for the Work for the first three (3) months in detail and for the remainder of the Work in summary form in accordance with Section III Bidding Information and Requirements: Article 5 and Section VIII General Conditions: Article 1.4 within 5 days of the date of Notice of Intent to Award Letter from the Department.
      b. The Interim Progress Schedule shall include dates for submittals for the Shop Drawings and Samples required during the first three months of Work.
   2. Progress Schedules:
      a. Submit a preliminary Progress Schedule in accordance with Section VIII General Conditions: Article 1.6 prior to starting Work at the Site. Submit in accordance with Section X Standard Specifications: Section 01 33 00 – Submittal Procedures and Section 01 31 26 – Electronic Communication Protocols.
      b. Preliminary Progress Schedule shall consist of a CPM Diagram, schedule narrative, and include dates for Shop Drawing and Sample submittals for the full project duration.
      c. After making revisions in accordance with ENGINEER’s comments on the preliminary Progress Schedule, submit the Progress Schedule in accordance with Section VIII General Conditions and Section X Standard Specifications: Section 01 33 00 – Submittal Procedures. This schedule
will constitute the Baseline Schedule. Submit the Baseline Progress Schedule no later than 20 days after starting Work at the site.

d. Bi-monthly (every two weeks) project schedules with a 2-week look ahead shall be submitted in Excel format.

e. Submit updated Baseline Progress Schedule with schedule narrative as part of the monthly Contractor’s Application for Payment. If a Progress Schedule remains unchanged from one payment application to the next, submit a written statement to that effect.

f. Furnish each Progress Schedule submittal with letter of transmittal complying with requirements of Section X Standard Specifications: Section 01 33 00 – Submittal Procedures, and specifically indicating the following:

1) Listing of activities and dates that have changed since the previous Progress Schedule submittal.

2) Discussion of problems causing delays, anticipated duration of delays, and proposed countermeasures.

3. Recovery Schedules: Submit in accordance with this Section, and other provisions of the General Conditions within 5 days after submittal of an updated Progress Schedule where need for a recovery schedule is indicated.

4. Accelerated Schedules may be submitted for in accordance with Section VIII General Conditions: Article 5.3.

5. Adjusted Project Schedules shall be submitted in accordance with Section VIII: General Conditions: Article 5.6.

6. If CONTRACTOR doesn’t intend to perform Work on the date with the Contract Time commences, CONTRACTOR must notify the DEPARTMENT as soon as possible in writing when work will commence. An interim schedule shall be submitted in accordance with Section VIII General Conditions: Article 1.4. Within 20 days after starting work at the site, an updated Baseline Project Schedule shall be provided to the ENGINEER for review.

7. ENGINEER reviewed project schedules shall be managed as Record Documentation.

1.3 PROGRESS SCHEDULE FORMAT AND CONTENT

A. Format:

1. Type:
   a. Gantt chart prepared using software such as Microsoft Project 2016 or later edition, Oracle Primavera P6, Oracle Primavera Project Planner – P3, or similar software.

2. Sheet Size: 11x17, unless otherwise accepted by ENGINEER.

3. Time Scale: Indicate first date of each work week.

4. Organization:
   a. Indicate on the separate Schedule of Submittals dates for submitting and reviewing Shop Drawings, Samples, and other submittals.
   b. Group deliveries of materials and equipment into a separate sub-schedule that is part of the Progress Schedule.
c. Group construction into a separate sub-schedule (that is part of the Progress Schedule) by activity.

d. Group critical activities that dictate the rate of progress (the “critical path”) into a separate sub-schedule that is part of the Progress Schedule. Clearly indicate the critical path on the Progress Schedule. At minimum activities should align with Bid Form.

e. Organize each sub-schedule item in accordance with the approved Schedule of Values.

5. Activity Designations: Indicate title and related Specification Section number.

6. Deliver schedules in both working file and PDF formats with the accompanying narrative.

B. Content: Progress Schedules shall indicate the following:

1. Dates for shop-testing, as applicable.
2. Delivery dates for materials and equipment to be incorporated into the Work.
3. Dates for beginning and completing each phase of the Work by activity and by trade.
4. Dates for start-up and check-out, field-testing, and instruction of operations and maintenance personnel.
5. Dates corresponding to the Contract Times, and planned completion date associated with each Milestone (if any), Substantial Completion, and readiness for final payment.

C. Coordinate the Progress Schedule with the Schedule of Submittals.

D. Progress Schedules anticipating achievement of Substantial Completion ahead of the corresponding Contract Time(s), but with zero Contract Float as opposed to positive Contract Float, will be returned as either "Approved as Noted," "Resubmit with Revisions," or "Disapproved." Submittals stamped as "Approved as Noted" will indicate ENGINEER's approval thereof, subject to the limitations set forth, including ENGINEER's computation of the appropriate Contract Float implied by the anticipated early completion.

E. Any float identified in the approved (or approved as noted) Baseline Schedule will be available for the project. The use of float shall be documented in each progress payment. If the CONTRACTOR disputes the availability of Contract Float and proposes that compensation for delay shall be measured from the anticipated early completion date(s) as opposed to the corresponding Contract Time(s), CONTRACTOR agrees and understands that said proposal will represent a request to the DEPARTMENT that the approved Progress Schedule be evaluated as a substitute Progress Schedule for the purposes of changing the Contract Time(s) to those supported by the CONTRACTOR's early-completion Progress Schedule. Evaluation of that substitution will be in accordance with the requirements of the General Conditions and will require additional supporting data that explains and substantiates the basis of the anticipated Early Schedules. Such supporting data shall consist of:

1) notice of any scheduled Work during hours other than normal work hours, 2) information related to rates of production including pertinent quantities, crew sizes,
man-day requirements, major items of equipment, etc., for Critical and other significant Activities, 3) express or implied contingency allowances figured in for Activities for such factors as weather, delays, activities of DEPARTMENT and ENGINEER to respond to reports of differing site conditions, and other relevant factors. Acceptance of that substitution will be evidenced by a Change Order shortening the Contract Time, or Contract Times accordingly, but maintaining the Contract Price and the provisions for liquidated and actual damages set forth in the Agreement.

1.4 RECOVERY SCHEDULES

A. Recovery Schedules – General:
1. When updated Progress Schedule indicates that the ability to comply with the Contract Times falls five or more days behind schedule, and the delay is within the control of CONTRACTOR, and there is no corresponding Change Order or Work Change Directive to support an extension of the Contract Times, CONTRACTOR shall prepare and submit a Progress Schedule demonstrating CONTRACTOR’s plan to accelerate the Work to achieve compliance with the Contract Times (“recovery schedule”) for ENGINEER’s acceptance.
2. Submit recovery schedule within five days after submittal of updated Progress Schedule where need for recovery schedule is indicated.

B. Implementation of Recovery Schedule:
1. At no additional cost to DEPARTMENT, do one or more of the following: furnish additional resources (additional workers, additional construction equipment, increased work hours or additional shifts, and other resources), provide suitable materials, expedite procurement of materials and equipment to be incorporated into the Work, and other measures necessary to complete the Work within the Contract Times.
2. Upon acceptance of recovery schedule by ENGINEER, incorporate recovery schedule into the next Progress Schedule update.

C. Lack of Action:
1. CONTRACTOR’s refusal, failure, or neglect to take appropriate recovery action, or to submit a recovery schedule, shall constitute reasonable evidence that CONTRACTOR is not prosecuting the Work or separable part thereof with the diligence that will ensure completion within the Contract Times. Such lack of action shall constitute sufficient basis for Department to exercise remedies available to Department under the General Conditions.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

++ END OF SECTION ++

01 32 16-4 JUNE 2022
PART 1 – GENERAL

1.1 DESCRIPTION

A. Scope:
   1. Furnish aerial (drone) and ground photographic documentation for the following phases of construction:
      a. Pre-construction – prior to mobilization to Site, prior to land disturbance.
      b. Construction progress – frequency, as specified.
      c. Pre-Final - prior to Final Inspection.
      d. Final – following final demobilization.
   
B. Ground camera equipment specifications including camera resolution requirements and photograph submission requirements.

C. Drone equipment specifications including camera resolution requirements and aerial photograph and video submission requirements.

D. Image Quality:
   1. Photographic documentation shall be in color.
   2. Photographic images and videos shall be suitably staged and set up (“framed”), focused, and shall have adequate lighting to illuminate the Work and conditions that are the subject of the photograph.

1.2 REFERENCES

B. Low Altitude Authorization and Notification Capability (LAANC).
C. Federal Aviation Administration (FAA) rules and regulations.

1.3 ROLES AND RESPONSIBILITIES

A. Pilot In Command (PIC):

1. Holds a valid FAA Part 107 license.
2. Ensures compliance with all FAA, State and Local regulations.
3. Oversees ground and flight operations.
4. Remote Pilot a drone, following a specific flight plan or obtaining useful footage.
5. Perform pre-flight, in-flight, and post-flight safety checks.
6. Troubleshoot equipment issues.

B. Visual Observer (VO) (Optional):

1. Should be knowledgeable about the scenarios that can impact flying conditions, including weather conditions, ground hazards, and airborne hazards.
2. Be aware of the FAA’s Small Unmanned Aircraft (or Part 107) Regulations regarding flights over people and other prohibited activities and support the pilot in flying within the bounds of what is legally permissible.
3. Be able to identify issues in the sky and direct the pilot to take the action necessary to avoid those issues.
4. Constantly scan the skies and the ground to identify potential hazards and notify the pilot of those hazards as they arise.

1.4 QUALITY ASSURANCE

A. CONTRACTOR personnel operating drones shall be licensed in accordance with all applicable rules and regulations, including FAA and 14 CFR Part 107 requirements.

B. CONTRACTOR’s operator should, at a minimum, have knowledge of the rules and responsibilities described in 14 CFR 91.111, Operating Near Other Aircraft; 14 CFR 91.113, Right-of-Way Rules: Except Water Operations; and 14 CFR 91.155, Basic Visual Flight Rule Weather Minimums; knowledge of air traffic and radio communications, including the use of approved ATC/pilot phraseology; and knowledge of appropriate sections of the Aeronautical Information Manual.

C. In conjunction with fulfilling all training requirements for PIC duties, the CONTRACTOR’s operator must also become familiar with Unmanned Aircraft System (UAS) operations, the aircraft, and its equipment.
D. CONTRACTOR is responsible to work with the ENGINEER and DEPARTMENT to obtain permission from the Site owner to access and fly the Site. CONTRACTOR is also responsible to confirm that there are not any local, state, or federal flight restrictions in the area that the flight is to take place.

E. CONTRACTOR shall be responsible for documenting all activity at the Site in accordance with the following schedules:

1. Ground photography shall be used to document the project activity and work progress on a frequency of twice per week (minimum).
   a. Ground camera settings:
      1) Full color photographs.
      2) Ground camera aspect ratio shall be 4:3.
      3) Ground camera settings shall be set according to site conditions, light conditions, and the subject being photographed.
      4) All ground photograph files shall be JPG format, and all ground video files shall be MP4 or MOV formats, unless otherwise requested by DEPARTMENT or ENGINEER.

2. Aerial Photography shall be used to document the project activity and work progress on a bi-weekly basis or twice per month (minimum).
   a. Aerial camera settings:
      1) Minimum of 10 megapixel still camera capability on drone.
      2) Drone camera settings shall be set according to site conditions, light conditions, and the subject being photographed.
      3) Minimum of 1080p, 60 frames per second video camera on drone.
      4) All video files shall be MP4 or MOV formats, and all still photographs shall be JPG format unless otherwise requested by DEPARTMENT or ENGINEER.

F. Photographic images shall be suitably staged and set up (“framed”), focused, and shall have adequate lighting to illuminate the Work and conditions that are the subject of the photograph.

G. Photographic images that are not well framed, focused, or do not have adequate lighting, at the discretion of the ENGINEER, shall be repeated by CONTRACTOR at no additional cost.
1.5  Submittals

A.  Licenses and Certifications. Submit the following:

1. Remote Pilot Certificate (shall be current) from the FAA part 107 license for all drone pilots proposed for the project, or for the certified PIC overseeing the operation.

2. Insurance; must maintain Commercial Drone Liability Insurance with a minimum of $1,000,000 liability limit. Submit insurance certificate(s) demonstrating the proper current insurance limits and listing additional insured(s) according to the requirements of the Contract Documents.

B.  Pre-Flight Submittals. Submit the following prior to each flight:

1. Documentation of authorization for each flight plan (as needed) through LAANC.

C. Pre-Flight Submittals required by CP-71:

1. CONTRACTOR shall complete the DEPARTMENT's UAS Mission Planning Form and submit to the DEPARTMENT or ENGINEER.

2. CONTRACTOR shall allow for a DEPARTMENT review period of thirty (30) days and shall expect a response (approval or modifications required) in writing. Refer to Section VIII General Conditions Article 5 Shop Drawings and Samples for submission and review procedures.

3. CONTRACTOR shall not proceed with any UAS work without written authorization from the DEPARTMENT.

D. Informational Submittals:

1. Pre-construction Photographic Documentation: Submit acceptable pre-construction photographic documentation (digital files) prior to disturbing the Site. Submit pre-construction photographic documentation not later than the first Application for Payment unless other schedule for pre-construction photographic documentation is accepted by ENGINEER.

2. Construction Progress Photographic Documentation: Submit acceptable construction progress photographic documentation (digital files) not less-often than monthly, unless otherwise agreed to by ENGINEER. Applications for Payment will not be processed if construction progress photographic documentation submittals are not up to date.
3. Pre-Final Photographic Documentation: Submit acceptable construction progress photographic documentation (digital files) with written notice requesting Final Inspection.

4. Pre-Flight Checklist: Submit a Preflight Checklist for the drone flight that corresponds with the submitted Aerial Photography and Video for review by the DEPARTMENT and ENGINEER. Pre-flight checklist is to be completed by CONTRACTOR’s PIC at the time of drone flight. The Pre-Flight Checklist should include but is not limited to the following sections:

   a. Drone Flight Information: This section should list at a minimum the Drone Model, Site Name, Date of flight, and Time of Flight.
   b. Documents: This section should confirm that all documents necessary for flight have been obtained.
   c. Crew: This section should list names of CONTRACTOR’s personnel that are performing the drone flight.
   d. Weather Details: This section should describe the weather conditions at the time of the flight.
   e. Site Information: This section should include site information that could interfere with the safety and success of the drone flight. Examples of items in this section include but are not limited to:

      1) Proximity to nearest airport.
      2) Indications that PIC checked state and local laws for drone flight restrictions.
      3) Indications that a secondary landing zone was identified on Site by PIC.
      4) Indication that flight is clear of overhead obstructions.
      5) Indication that a clear take off and landing site was identified by PIC.

   f. Drone Flight Equipment Visual Inspection: This section should include the drone components that should be visually inspected before flight commences.
   g. Firmware and Memory: This section should include but is not limited to a brief description of the firmware version, a check that all firmware is updated, and check that there is sufficient memory to capture aerial footage of the Site.
   h. Take–Off Checklist: This section should include but is not limited to a checklist of:

      1) Signal and or satellite strength is sufficient.
      2) Drone compass is calibrated
      3) Return to home point is set.
      4) That any bystanders have been notified that drone flight is commencing.
5. Qualifications Statements:
   a. Prior to starting ground photographic documentation, submit photographer qualifications and record of experience. List of construction photography experience shall include the following for each project:

   1) Project name and location.
   2) Nature of construction.
   3) Photographer’s client with contact information.
   4) Approximate duration of photographer’s services.

   b. Prior to starting drone photographic and video documentation, submit drone pilot qualifications and record of experience. List of construction photography and video experience (aerial photography) shall include the following for each project:

   1) Project name and location.
   2) Nature of construction.
   3) Photographer’s client with contract information.
   4) Approximate duration of photographer’s services.

E. Closeout Submittals. Submit the following:

1. Final Photographic Documentation: Submit acceptable final photographic documentation (prints and digital files) prior to final demobilization.

2. Photographic Documentation shall be considered part of the Record Documentation.
1. For each photograph taken, furnish high-quality digital image in “JPG” file format compatible with Microsoft Windows 10 and higher operating systems.
2. For each video taken, furnish high-quality digital video in “MP4” or “MOV” file format compatible with Microsoft Windows 10 and higher operating systems.
3. Image resolution shall be sufficient for clear, high-resolution prints. Minimum resolution shall be 3 megapixels.
4. Video resolution shall be in 1080p with a minimum frame rate of 60 frames per second.
5. Do not imprint date and time in the image or video.
6. Electronic image filename shall describe the image; do not submit filenames automatically created by digital camera. For example, an acceptable electronic filename would be, “ProjectA Preconstruction 01.05.2022 Photo 1.jpg”.
7. Electronic folder names shall include the project, the date, etc. Do not include folders automatically created by digital camera. For example, an acceptable folder name would be: “ProjectA Part1 Photos 04.06.2022”.
8. Digital Video and Photograph Submittals
   a. CONTRACTOR shall host a secured, password enabled/encrypted file sharing site the secure transfer of electronic files as approved by the DEPARTMENT.
   b. Hardcopy photographs shall not be required unless specifically requested by DEPARTMENT or ENGINEER.
   c. Include file index and appropriately labeled and dated folders for each file transfer containing photographic documentation:
      1) Date(s) photographs were taken.
      2) Name of Owner.
      3) Name of the Site.
      4) Project name.
      5) Photographer name and address.

3.2 PRE-CONSTRUCTION PHOTOGRAPHIC DOCUMENTATION

A. Ground Photography

1. Pre-construction Photographic Documentation:
   a. Obtain and submit pre-construction photographic documentation to record Site conditions prior to construction. Photographs shall document all locations and areas of all work of the Contract, including all areas which will be disturbed by the work.
b. Pre-construction photographs are not part of the required number of construction progress photographs specified in Article 3.3 of this Section.

c. Furnish ground-based pre-construction video of all locations and areas of work of the Contract, including indoor and outdoor work areas, staging areas and all areas which will be disturbed by the work.

2. If disagreement arises on the condition of the Site and insufficient pre-construction photographic documentation was submitted prior to the disagreement, restore the conditions in question as directed by ENGINEER and to satisfaction of ENGINEER.

B. Aerial Photography and Video

1. Take pre-construction aerial photographs at the same time that pre-construction ground photography is performed. The following aerial photographs shall be taken during the pre-construction aerial photography event:
   a. 8 photographs from altitude of 400 feet, from edge of property/Site facing center of Site, from N, NE, E, SE, S, SW, W and NW with horizon visible in each photograph.
   b. 4 photographs from altitude of 400 feet, straight down covering each work area/quadrant of the Site;
   c. 8 photographs from altitude of between 100 and 150 feet, from edge of property/Site facing center of Site, from N, NE, E, SE, S, SW, W, and NW with horizon visible in each photograph; and
   d. 4 roof-height photographs (if structures are present), from center of property/Site, viewing N, E, S, and W.

2. Take pre-construction video of the Site from an altitude of 100 feet. Video shall be performed in a slow orbit of the Site covering all proposed work areas, including all areas which will be disturbed by the work.

3.3 CONSTRUCTION PROGRESS PHOTOGRAPHIC DOCUMENTATION

A. Ground Photography

1. Progress Photographs:
   a. Approved photographer shall take photographs at the Site not less often than twice per week.
b. Take not less than 10 photographs each time photographer is at the Site.

2. Obtain and submit interior and exterior photographic documentation of each area of work as directed by ENGINEER at the time photographic documentation is taken.

3. Take progress, ground-based video, when directed by ENGINEER or DEPARTMENT. Ground-based video shall be conducted in accordance with Article 3.2.A.1.c.

B. Aerial Photography and Video

1. Progress Photographs:
   a. Take photographs not less often than bi-weekly or twice per month. The following photographs shall be taken during each aerial photography event:
      1) 8 photographs from altitude of 400 feet, from edge of property/Site facing center of Site, from N, NE, E, SE, S, SW, W and NW with horizon visible in each photograph;
      2) 4 photographs from altitude of 400 feet, straight down covering each work area/quadrants of the Site;
      3) 8 photographs from altitude of between 100 and 150 feet, from edge of property/Site facing center of Site, from N, NE, E, SE, S, SW, W and NW with horizon visible in each photograph; and
      4) 4 roof-height photographs (if structures are present), from center of Site, viewing N, E, S, and W.

2. Progress Video:
   a. Take video of the Site, as directed by DEPARTMENT or ENGINEER, at a minimum of 2 occasions, not including Pre-Construction and Final Documentation events.
   
   b. Video shall be taken from altitude of 100 feet – slow orbit of the Site covering all active work areas.

3.4 FINAL PHOTOGRAPHIC DOCUMENTATION

A. Final Ground Photographs:

1. Take photographs at time and day acceptable to ENGINEER and following completion of all construction and demobilization. Work documented in
final (record) photographs shall be generally complete, including all features of completed work, as directed by the ENGINEER and DEPARTMENT.

B. Final Aerial Photography and Video

1. Take final aerial photographs at the same time that final ground photography is performed. The following aerial photographs shall be taken during the final aerial photography event:
   a. 8 photographs from altitude of 400 feet, from edge of property/Site facing center of Site, from N, NE, E, SE, S, SW, W and NW, with horizon visible in each photograph;
   b. 4 photographs from altitude of 400 feet, straight down covering each work area/quadrants of the Site;
   c. 8 photographs from altitude of between 100 and 150 feet, from edge of property/Site facing center of Site, from N, NE, E, SE, S, SW, W and NW with horizon visible in each photograph; and
   d. 4 roof-height photographs (if structures are present), from center of Site, viewing N, E, S, and W.

2. Take final video of the Site from an altitude of 100 feet. Video shall be performed in a slow orbit of the Site covering all final and restored work areas.

3.5 ACCIDENT REPORTING

A. The CONTRACTOR shall immediately notify the DEPARTMENT when an “Aircraft Incident” or mishap occurs, including:

1. Any missing aircraft.
2. Any collision.
3. Injury to any person or any loss of consciousness.
4. Damage to any property, other than the UAS itself, if the cost is greater than $500 to repair or replace the property.

B. The CONTRACTOR shall support the DEPARTMENT and other agencies with subsequent investigations into the cause of the mishap and any corrective actions that are required by CONTRACTOR as a result of the mishap.

C. The CONTRACTOR must also notify the FAA within 10 calendar days after an accident (as defined by regulation) and before additional flights, the operator must provide notification to the FAA per Part 107.9.
3.6 Emergency Procedures

A. Emergency procedures are specific to each UAS type as designed by the manufacturer. It is the responsibility of the flight crew to be proficient with the aircraft operational manual provided by the vendor before any flight operations are conducted. It is also a best and safe practice to prepare an Emergency Checklist in case of emergencies. The CONTRACTOR’s PIC should always be prepared to execute an emergency procedure in instances where there is a lost link, loss of GPS, or there are other aircraft or obstructions in the flight path. They should brief the flight crew before the start of the flight operations about emergency procedures and have a mission abort site for landing in the case of an emergency. After the aircraft has safely landed, it should be documented for maintenance purposes.

B. Many UAS have a number of failsafe options in case of failures or emergency situations. These include using methods of stabilization and an automated Return to Land (RTL) or Loiter mode. Other features include fail-recovery software. The specific failsafe options available for each type of UAS should be outlined in the UAS documentation (Operator’s Manual, Checklists, etc.). These fail-safe mechanisms should be tested during training and currency flights. Flying without these fail-safe mechanisms in place is not recommended.

C. An emergency avoidance procedure should be determined before landing. Options include land immediately, move to a predetermined location and altitude, or another approach. All possible incursions must be assessed for risk mitigation.

++ END OF SECTION ++
PART 1 – GENERAL

1.1 DESCRIPTION

A. Scope:
   1. CONTRACTOR shall prepare and furnish submittals in accordance with Section III Bidding Information and Requirements: Article 5 and Section VIII General Conditions: Articles 5.24 through 5.30.
   2. Provide submittals well in advance of need for the material or equipment, or procedure (as applicable), in the Work and with ample time required for delivery of materials and equipment and to implement procedures following ENGINEER’s approval or acceptance of the associated submittal. Work covered by a submittal will not be included in progress payments until approval or acceptance of related submittals has been obtained in accordance with the Contract Documents.
   3. CONTRACTOR is responsible for dimensions to be confirmed and corrected at the Site; quantities; information pertaining solely to fabrication processes; means, methods, sequences, procedures, and techniques of construction; safety precautions and programs incident thereto; and for coordinating the work of all trades.
   4. CONTRACTOR’s signature of submittal’s stamp and letter of transmittal shall be CONTRACTOR’s representation that CONTRACTOR has complied with his obligations under the Contract Documents relative to that submittal. ENGINEER and OWNER shall be entitled to rely on such representations by CONTRACTOR.
   5. Provisions of the General Conditions, as may be modified by the Supplementary Conditions, apply to all CONTRACTOR-furnished submittals required by the Contract Documents, regardless of whether such submittals are other than Shop Drawings or Samples.

B. Samples:
   1. Submittal of Samples shall comply with Section VIII General Conditions, as may be modified by Section IX Supplementary Conditions, this Section, and the Specifications Section in which the Sample is specified.
   2. Furnish at the same time those Samples and submittals that are related to the same element of the Work or Specifications Section. ENGINEER will not review submittals without associated Samples and will not review Samples without associated submittals.
   3. Samples shall clearly illustrate functional characteristics of materials, all related parts and attachments, and full range of color, texture, pattern, and materials.
C. Restrictions on Quantity of Submittals and Compensation of DEPARTMENT:

1. CONTRACTOR shall furnish required submittals with sufficient information and accuracy to obtain required approval or acceptance of submittal by ENGINEER with not more than the number of resubmittals indicated in the General Conditions (as may be modified by Section IX Supplementary Conditions).

2. Total number of CONTRACTOR’s submittals shall not exceed 25 percent above the total number of first-time submittals indicated in the Schedule of Submittals initially accepted by ENGINEER in accordance with the General Conditions. ENGINEER will record ENGINEER’s time for reviewing submittals of Shop Drawings, Samples, and other submittals and items requiring approval or acceptance, beyond the quantity of first-time submittals indicated in the Schedule of Submittals initially accepted by ENGINEER, and CONTRACTOR shall reimburse DEPARTMENT for ENGINEER’s charges for such time.

3. In the event that CONTRACTOR requests a substitution for a previously approved item, Contractor shall reimburse DEPARTMENT for ENGINEER’s charges for such time unless the need for such substitution is beyond the control of CONTRACTOR.

4. DEPARTMENT may impose set-offs against CONTRACTOR for the costs for which CONTRACTOR is to reimburse or compensate DEPARTMENT, in accordance with the General Conditions.

1.2 TYPES OF SUBMITTALS

A. Submittal types are classified as follows: 1) Action Submittals, 2) Informational Submittals, 3) Closeout Submittals, and 4) Maintenance Material submittals. Type of each required submittal is designated in the respective Specifications Sections; when type of submittal is not designated in the associated Specification Section, submittal will be classified as follows:

1. Action Submittals include:
   a. Shop Drawings.
   b. Product data.
   c. Delegated design submittals, which include documents prepared, sealed, and signed by a design professional retained by CONTRACTOR, Subcontractor, or Supplier for materials and equipment to be incorporated into the completed Work. Delegated design submittals do not include submittals related to temporary construction unless specified otherwise in the related Specifications Section. Delegated design submittals include: design drawings, design data including calculations, specifications, certifications, and other submittals prepared by such design professional.
   d. Samples.
   e. Testing plans, procedures, and testing limitations.

2. Informational Submittals include:
   a. Certificates.
b. Design data not sealed and signed by a design professional retained by CONTRACTOR, Subcontractor, or Supplier.

c. Pre-construction test and evaluation reports, such as reports on pilot testing, subsurface investigations, testing for a potential Hazardous Environmental Condition, and similar reports.

d. Supplier instructions, including installation data, and instructions for handling, starting-up, and troubleshooting.

e. Source quality control submittals (other than testing plans, procedures, and testing limitations), including results of shop testing.

f. Field or Site quality control submittals (other than testing plans, procedures, and testing limitations), including results of operating and acceptability tests at the Site.

g. Supplier reports.

h. Sustainable design submittals (other than sustainable design closeout documentation).

i. Special procedure submittals, including plans for shutdowns and tie-ins and other procedural submittals.

j. Qualifications statements.

k. Administrative submittals including:
   1) Progress Schedules.
   2) Schedules of Submittals.
   3) Bid Breakdown (Schedules of Values).
   4) Photographic documentation.
   5) Coordination drawings, when submittal of such is required.
   6) Copies of permits obtained by CONTRACTOR.
   7) Field engineering reports, survey data, and similar information.

3. Closeout Submittals include:
   a. Maintenance contracts.
   b. Operations and maintenance data.
   c. Bonds, such as special maintenance bonds and bonds for a specific material, equipment item, or system.
   d. Warranty documentation.
   e. Record documentation.
   f. Sustainable design closeout documentation.
   g. Software.
   i. Keying.

4. Maintenance Material Submittals include:
   a. Spare parts.
   b. Extra stock materials.
   c. Tools.

5. When type of submittal is not specified and is not included in the list above, request an interpretation from ENGINEER and ENGINEER will determine the type of submittal.

B. Not Included in this Section: Administrative and procedural requirements for following are covered elsewhere in the Contract Documents:

1. Requests for interpretations of the Contract Documents.
2. Change Orders, Work Change Directives, and Field Orders.
3. Applications for Payment
4. Reports, documentation, and permit applications required to be furnished by CONTRACTOR to authorities having jurisdiction.

1.3 SUBMITTALS

A. The major initial submittal packages are outlined below, including the **Five-Day Submittal Package**, the **Fourteen-Day Submittal Package**, submittals following the Notice to Proceed, and other submittals required prior to the start of onsite Work. Many of the major submittals (such as the Work Plan, Site Specific Health and Safety Plan, etc.) have multiple iterations to be submitted (Preliminary, Draft, and Final). The *Preliminary* version of these submittals is intended to demonstrate that the CONTRACTOR understands the requirements of the Contract, however this iteration of the submittal is not expected to contain the level of detail required of the Draft version of the submittals. The *Draft* version of these submittals shall include the level of detail required of the Standard and Supplemental Specifications. The DEPARTMENT and ENGINEER will provide reviews of the *Preliminary* and *Draft* version of these submittals such that satisfactory revisions can be incorporated into the *Final* version of these submittals for approval.

A. **Five-Day Submittal Package.** In accordance with Section III Bidding Information and Requirements: Article 5, the Apparent Low Bidder shall, at a minimum, submit the following with the required five-day submittal package, 5 days following the Notice of Apparent Low Bidder.

1. Copy of the permits for any off-site disposal facilities (Informational Submittal)
2. Preliminary Work Plan (Action Submittal). The Work Plan shall include:
   a. Procedures for adequate and safe excavation of soils and materials including a contingency plan detailing procedures and methods to be employed to prevent, contain, and recover spills during the work.
   b. Qualifications of land surveyors.
   c. Procedures for water management, including creek by-pass, management of stormwater run-on, and dewatering.
   d. Description of equipment to be used on site with appropriate safety devices needed to undertake the remediation of the site.
   e. Identification of the permitted treatment, storage, and disposal facilities (TSDF) proposed to receive liquid or solid wastes to be transported off-site, along with their respective permits.
   f. Identification of permits required to conduct the work.
   g. Construction Site Plan which, at a minimum, includes locations and dimensions of temporary facilities, material storage areas, access and haul routes, avenues of ingress/egress, temporary fencing, trailers, offices, sheds, decontamination station, staging procedures, designated parking areas, temporary utility connections (i.e. water, electric, and sanitary), temporary construction access road locations and sequencing, temporary staging areas, sediment dewatering and processing areas, details, sanitary facilities, etc.
h. Detailed construction drawing(s) of the proposed decontamination station.

i. Procedures for decontamination methods for small equipment and hand tools, waste material and personal protective equipment, and large equipment and vehicles that have handled or been contaminated with Remediation Waste Type 1 or 2.

j. Copy of written approval from United States Environmental Protection Agency should contractor propose alternative decontamination method to the method prescribed in 40 CFR 761.79 Subpart S.

k. Procedures for decontamination methods for trucks loading on truck loading staging areas and traveling exclusively on clean temporary on-site access roads, and for equipment that has not handled, nor been contaminated with, Remediation Waste Type 1 or 2.

l. Procedures for excavating, handling, storing, and placing soils.

m. Description of planned means and methods for transporting and disposing of materials around or from the Site or generated as a component of the Work. Include identification of destination and/or designated disposal facility, and traffic route to get there.

n. Procedures for handling liquid wastes and groundwater.

o. Provisions for control of fugitive air emissions and dust control.

p. Other requirements necessary to provide security, staging, sampling, testing, removal, and disposal of wastes.

q. Procedures for completing any other major aspect of the work including:
   1. Excavation Plan
   2. Survey Plan
   5. Dust Control Plan
   6. Monitoring Well Decommissioning and Installation Plan
   7. Traffic Control and Site Access Plan
   8. Site Security (including controlling ingress and egress at the site).
   9. Geotechnical Instrumentation and Monitoring Plan
   10. Miscellaneous Requirements.

r. See the following sections for additional requirements and information (this list may not be exhaustive)
   1. Section III Bidding Information and Requirements: Article 5
   2. Section X Standard Specifications:
      1) Section 00 030 – Green Remediation Practices
      3) Section 01 51 05 – Temporary Utilities and Controls
      4) Section 01 55 13 – Access Roads and Parking Areas
   3. Section XI Supplementary Specifications:
      1) Section 01 14 35 – Winter Shutdown
      2) Section 01 55 26 – Traffic Control
      3) Section 02 41 19 – Demolition and Abandonment
      4) Section 02 72 00 – Water Treatment
      5) Section 02 80 01 – Decontamination
6) Section 02 81 00 – Off-site Transportation and Disposal
7) Section 13 50 00 – Slope Monitoring Instrumentation
8) Section 31 11 00 – Clearing and grubbing
9) Section 31 23 16 – Excavation
10) Section 31 23 19 – Excavation Dewatering
11) Section 31 32 00 – Sediment Processing
12) Section 35 60 00 – Temporary Water Diversion and Flood Contingency Planning

3. Interim Progress Schedule as required by Section X Standard Specifications:
   Section 01 32 16 – Progress Schedule and in accordance with:
   a. Section III Bidding Information and Requirements: Article 5
   b. Section VIII General Conditions: Article 1.4

4. Preliminary Site Specific Health and Safety Plan (SSHASP) as required by
   Section X Standard Specifications: Section 01 35 29 – Contractor’s Health and Safety Plan.

5. Preliminary Sampling Plan and Quality Control Project Plan as required by
   Section X Standard Specifications: Section 01 45 29 – Testing Laboratory Services Furnished by Contractor.

6. Preliminary QAPP as required by Section X Standard Specifications: Section 01 45 29 – Testing Laboratory Services Furnished by Contractor.

7. Statement of Surety’s Intent, complete and signed by a duly authorized surety company licensed to do business in the State of New York (Informational Submittal)

8. A description of projects completed by CONTRACTOR documenting experience in this type of work (Informational Submittal)

9. Completed NYS Vendor Responsibility Questionnaire (CCA-2) or an affidavit of no change (in appropriate), or a letter certifying that the forms were completed and submitted using the Office of the New York State Comptroller (OSC) online VendRep System (Informational Submittal)

10. Authorizing Resolution stating that a certain individual has the authority to sign the Contract on behalf of the CONTRACTOR (Informational Submittal)


12. Any other information that demonstrates the CONTRACTOR’s ability to perform the Work (Informational Submittal)

13. Additional information as requested to demonstrate competency (Informational Submittal)

B. **Fourteen-Day Submittal Package.** In accordance with Section III Bidding Information and Requirements: Article 5, the Apparent Low Bidder shall, at a minimum, submit the following with the required fourteen-day submittal package, 14 days following the date of the Notice of Intent to Award Letter. These submittals are required for the Notice to Proceed.
   1. Four (4) executed copies of the contract agreements with original signatures (Informational Submittal)
   2. Performance Bond with Power of Attorney & Surety Financial Statement (original and 3 copies) (Informational Submittal)
3. Labor & Materials Bond with Power of Attorney & Surety Financial Statement (original and 3 copies) *(Informational Submittal)*

4. Preliminary Bid Breakdown of items reflecting adjusted contract amount as reflected as required by Section X Standard Specifications: Section 01 29 73 – Bid Breakdown (Schedule of Values) and in accordance with the following sections:
   a. Section III Bidding Information and Requirements: Articles 5 and 12
   b. Section VIII General Conditions: Articles 1 and 13
   c. Section XII Measurement for Payment

5. Certificates of Insurance *(Informational Submittal)*

6. M/WBE-EEO Utilization Plan (original) or a letter certifying that the forms have been completed and submitted using the DEPARTMENT’s electronic M/WBE System *(Informational Submittal)*

7. Service-Disabled Veteran-Owned Business SDVOB Utilization Plan as detailed in Section VII Appendices: Appendix D *(Informational Submittal)*

C. **Submittals following Notice to Proceed.** The following submittals shall be submitted the sooner of 7 days prior to the pre-construction conference, or 30 days prior to CONTRACTOR’s scheduled mobilization to the Site.

1. Draft Work Plan inclusive of the components listed for the Preliminary Work Plan under the five-day submittal package in this Section and with satisfactory responses to and revisions based on comments received from the DEPARTMENT and ENGINEER. The draft Work Plan shall be complete and shall fulfill all requirements of this Section and other Sections *(Action Submittal)*

2. Draft Site Specific Health and Safety Plan as required by Section X Standard Specifications: Section 01 35 29 – Contractor’s Health and Safety Plan with satisfactory responses to and revisions based on comments received from the DEPARTMENT and ENGINEER.

3. Draft Sampling Plan and Quality Control Project Plan as required by Section X Standard Specifications: Section 01 45 29 – Testing Laboratory Services Furnished by Contractor.

4. Draft QAPP as required by Section X Standard Specifications: Section 01 45 29 – Testing Laboratory Services Furnished by Contractor.

D. **Submittals prior to start of Work.** The following submittals shall be submitted prior to starting Work at the Site.

1. Final Work Plan inclusive of the components listed for the Work Plan under the five-day submittal package in this Section and with satisfactory responses to and revisions based on comments received from the DEPARTMENT and ENGINEER *(Action Submittal)*

2. Preliminary Progress Schedule as required by Section X Standard Specifications: Section 01 32 16 – Progress Schedule

3. Preliminary Schedule of Submittals in the format described in this Section *(Action Submittal)*

4. Final Site Specific Health and Safety Plan as required by Section X Standard Specifications: Section 01 35 29 – Contractor’s Health and Safety Plan with
satisfactory responses to and revisions based on comments received from the DEPARTMENT and ENGINEER.

5. Final Sampling Plan and Quality Control Project Plan as required by Section X Standard Specifications: Section 01 45 29 – Testing Laboratory Services Furnished by Contractor.

6. Final QAPP as required by Section X Standard Specifications: Section 01 45 29 – Testing Laboratory Services Furnished by Contractor.

7. Technical submittals identified by other Specifications necessary to start Work.

E. **Other Initial Submittals.** The following submittals shall be submitted within 20 days of starting Work at the Site.

1. Final Bid Breakdown as required by Section X Standard Specifications: Section 01 29 73 – Bid Breakdown (Schedule of Values).

2. Baseline Progress Schedule as required by Section X Standard Specifications: Section 01 32 16 – Progress Schedule.

3. Final Schedule of Submittals in the format described in this Section and with satisfactory responses to and revisions based on comments received from the DEPARTMENT and ENGINEER (*Action Submittal*).

4. Technical submittals (including Shop Drawings) identified by other Specification Sections necessary for Work during the initial three months.

F. **Other Submittals.** Major submittal requirements identified in other sections of the Specifications are listed in the attached Table 01 33 00.A, however, this list is not inclusive of all submittals.

1. Submit an updated Schedule of Submittals in the format described in this Section along with each Progress Schedule submittal required by Section X Standard Specifications: Section 01 32 16 – Progress Schedule (every two-weeks, prior to each Progress Meeting, and with every Application for Payment) (*Informational Submittal*).

2. Submit Shop Drawings and Samples in accordance with Section VIII General Conditions: Articles 5.24 to 5.30 and in compliance with the accepted Progress Schedule which includes Shop Drawing and Sample submittal dates.

3. Submit technical submittals prior to procurement, transportation, or execution of materials or Work associated with the submittal and with sufficient time for the ENGINEER’s review and CONTRACTOR revisions. CONTRACTOR shall have sole financial responsibility for submittals that are submitted late.

### 1.4 REQUIREMENTS FOR SCHEDULE OF SUBMITTALS

A. **Informational Submittals: Submit the following:**

1. **Schedule of Submittals:**
   a. **Timing:**
      1) Furnish submittals within time frames indicated in the Contract Documents.
      2) Submit updated Schedule of Submittals with each submittal of the updated Progress Schedule.
b. Content: In accordance with the General Conditions, as may be modified by the Supplementary Conditions, and this Section. Requirements for content of preliminary Schedule of Submittals and subsequent submittals of the Schedule of Submittals are identical. Identify on Schedule of Submittals all submittals required in the Contract Documents. Updates of Schedule of Submittals shall show scheduled dates and actual dates for completed tasks. Indicate submittals that are on the Project’s critical path. Indicate the following for each submittal:
1) Date by which submittal will be received by ENGINEER.
2) Whether submittal will be for a substitution or “or-equal”. Procedures for requesting approval of substitutes and “or-equals” are specified in the Section VIII General Conditions: Article 5 and Section X Standard Specifications: Section 01 25 00 – Substitution Procedures.
3) Date by which ENGINEER’s response is required. Not less than 14 days shall be allowed for ENGINEER’s review, starting upon ENGINEER’s actual receipt of each submittal. Allow increased time for large or complex submittals.
4) For submittals for materials or equipment, date by which material or equipment must be at the Site to avoid delaying the Work and to avoid delaying the work of other contractors, if any.

c. Prepare Schedule of Submittals using same software, and in same format, specified for Progress Schedules in Section X Standard Specifications: Section 01 32 16 – Progress Schedule.

d. Coordinate Schedule of Submittals with the Progress Schedule.

e. Schedule of Submittals that is not compatible with the Progress Schedule, or that does not indicate submittals on the Project’s critical path, or that places extraordinary demands on ENGINEER for time and resources, is unacceptable. Do not include submittals not required by the Contract Documents.

f. In preparing Schedule of Submittals:
1) Considering the nature and complexity of each submittal, allow sufficient time for review and revision.
2) Reasonable time shall be allowed for: ENGINEER’s review and processing of submittals, for submittals to be revised and resubmitted, and for returning submittals to CONTRACTOR.
3) Identify and accordingly schedule submittals that are expected to have long anticipated review times.

1.5 PROCEDURE FOR SUBMITTALS

A. Submittal Identification System: Use the following submittal identification system, consisting of submittal number and review cycle number.
1. Submittal Number shall be a three-digit number (sequentially numbered from 001 through 999) assigned to each separate and unique submittal furnished under the associated Specifications Section.
2. Review Cycle Number: Shall be a number indicating the initial submittal or re-submittal associated with each submittal number:
a. “01” = Initial (first) submittal.
b. “02” = Second submittal (e.g., first re-submittal).
c. “03” = Third submittal (e.g., second re-submittal).

3. Examples:

<table>
<thead>
<tr>
<th>Example Description</th>
<th>Submittal Identification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial (first) review cycle of the third submittal</td>
<td>003- 01</td>
</tr>
<tr>
<td>Second review cycle (first re-submittal) of tenth submittal</td>
<td>010- 02</td>
</tr>
</tbody>
</table>

B. Letter of Transmittal for Submittals:
1. Furnish separate letter of transmittal with each submittal. Each submittal shall be for one Specifications Section.
2. At beginning of each letter of transmittal, include a reference heading indicating: CONTRACTOR’s name, DEPARTMENT’s name, Project name, Contract designation, transmittal number, and submittal number.
3. For submittals with proposed deviations from requirements of the Contract Documents, letter of transmittal shall specifically describe each proposed variation.

C. Contractor’s Review and Stamp:
1. Contractor’s Review: Before transmitting submittals to ENGINEER, review submittals to:
   a. ensure proper coordination of the Work;
   b. determine that each submittal is in accordance with CONTRACTOR’s desires;
   c. verify that submittal contains sufficient information for ENGINEER to determine compliance with the Contract Documents.
2. Incomplete or inadequate submittals will be returned without review.
3. Contractor’s Stamp and Signature:
   a. Each submittal furnished shall bear CONTRACTOR’s stamp of approval and signature, as evidence that submittal has been reviewed by CONTRACTOR and verified as complete and in accordance with the Contract Documents.
   b. Submittals without CONTRACTOR’s stamp and signature will be returned without review. Signatures that appear to be computer-generated will be regarded as unsigned and the associated submittal will be returned without review.
   c. CONTRACTOR’s stamp shall contain the following:

   “Project Name: __________________________________________________
   Contractor’s Name: ____________________________________________
   Contract Designation: _________________________________________
   Date: ________________

---------------------- Reference ---------------------
Submittal Title: ________________________________

Specifications:
  Section: ________________________________
  Page No.: ________________________________
  Paragraph No.: ________________________________

Drawing No.: _______________ of _______________

Location of Work: ________________________________

Submittal No. and Review Cycle: ________________________________

Coordinated by Contractor with Submittal Nos.: ________________________________

____________________________________________________________________

I hereby certify that the Contractor has satisfied Contractor’s obligations under the Contract Documents relative to Contractor’s review and approval of this submittal.

Approved for Contractor by: ________________________________”

D. Submittal Marking and Organization:

1. Mark on each page of submittal and each individual component submitted with submittal number and applicable Specifications paragraph. Mark each page of each submittal with the submittal page number.
2. Arrange submittal information in same order as requirements are written in the associated Specifications Section.
3. Each Shop Drawing sheet shall have title block with complete identifying information satisfactory to ENGINEER.
4. Package together submittals for the same Specifications Section. Do not furnish required information piecemeal.

E. Format of Submittal and Recipients:

1. Action Submittals and Informational Submittals: Furnish in accordance with Table 01 33 00B, except that submittals of Samples shall be as specified elsewhere in this Section:
TABLE 01 33 00B: SUBMITTAL CONTACTS AND REQUIRED FORMAT

<table>
<thead>
<tr>
<th>Address for Deliveries</th>
<th>Contact Person</th>
<th>E-mail Address</th>
<th>Format*</th>
<th>No. of Printed Copies</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Engineer: EA Engineering, P.C.</td>
<td>Matt Smith</td>
<td><a href="mailto:mattsmit@eaest.com">mattsmit@eaest.com</a></td>
<td>E</td>
<td>Zero</td>
</tr>
<tr>
<td>b. Resident Project Representative: At the Site.</td>
<td>(TBD)</td>
<td>(TBD)</td>
<td>E &amp; P</td>
<td>One</td>
</tr>
</tbody>
</table>

* Format: E = Electronic files; P = Printed copies.
TBD = To Be Determined

2. Samples:
   a. Securely label or tag Samples with submittal identification number. Label or tag shall include clear space at least four inches by four inches in size for affixing ENGINEER’s review stamp. Label or tag shall not cover, conceal, or alter appearance or features of Sample. Label or tag shall not be separated from the Sample.
   b. Submit quantity of Samples required in Specifications. If quantity of Samples is not indicated in the associated Specifications Section, furnish not less than two identical Samples of each item required for ENGINEER’s approval. Samples will not be returned to CONTRACTOR. If CONTRACTOR requires Sample(s) for CONTRACTOR’s use, so advise ENGINEER in writing and furnish additional Sample(s). CONTRACTOR is responsible for furnishing, shipping, and transporting additional Samples.
   c. Deliver one Sample to ENGINEER’s field office at the Site. Deliver balance of Samples to ENGINEER’s office at the following address, unless otherwise directed by ENGINEER:

   EA Engineering, P.C.
   Attn: Math Smith (OUMR)
   269 W. Jefferson Street
   Syracuse, NY 13202

3. Closeout Submittals:
   a. Furnish the following Closeout Submittals in accordance with Table 01 33 00-A: maintenance contracts; bonds for specific materials, equipment, or systems; warranty documentation; and sustainable design closeout documentation. On documents such as maintenance contracts and bonds, include on each document furnished original (“wet”) signature of entity issuing said document. When original “wet” signatures are required, furnish such submittals in printed form and electronic form to ENGINEER, and to other entities furnish as indicated in Table 01 33 00-A.
   b. Record Documentation: Submit in accordance with Section 01 78 39, Project Record Documents.
   c. Software: Submit number of copies required in Specifications Section where the software is specified. If number of copies is not specified,
provide two copies on SSD (USB drive or card) in addition to software loaded on DEPARTMENT’s computer(s) or microprocessor(s).


F. Electronic Submittals:
1. Format: Unless otherwise specified, electronic files shall be in “portable document format” (.PDF). Files shall be electronically searchable.
2. Organization and Content:
   a. Each electronic submittal shall be one file; do not divide individual submittals into multiple files each.
   b. When submittal is large or contains multiple parts, furnish PDF file with bookmark for each section of submittal.
   c. Content shall be identical to printed submittal. First page of electronic submittal shall be CONTRACTOR’s letter of transmittal.
3. Quality and Legibility: Electronic submittal files shall be made from the original and shall be clear and legible. Do not submit scans of faxed copies. Electronic file shall be full size of original, printed documents. Properly orient all pages for reading on a computer screen.
4. Provide sufficient Internet service and e-mail capability for CONTRACTOR’s use in transferring electronic submittals, receiving responses to electronic submittals, and associated electronic correspondence. Check not less than once per day for distribution of electronic submittals, electronic responses to submittal, and electronic correspondence related to submittals.
5. Submitting Electronic Files:
   a. Transmit electronic files in accordance with Section 01 31 26, Electronic Communication Protocols.

G. Distribution:
1. Distribution of ENGINEER’s Response via Electronic Files: Upon completion of ENGINEER’s review, electronic submittal response will be distributed by ENGINEER to
   a. CONTRACTOR.
   b. DEPARTMENT.
   c. Resident Project Representative (RPR).
   d. ENGINEER’s file.

H. Resubmittals: Refer to the General Conditions for requirements regarding resubmitting required submittals.

I. CONTRACTOR shall furnish required submittals with complete information and accuracy in order to achieve required approval of an item within two submittals. All costs to ENGINEER involved with subsequent submittals of Shop Drawings, Samples or other items requiring approval, will be back-charged to CONTRACTOR, at the rate equal to the ENGINEER’s charges to the DEPARTMENT under the terms of the ENGINEER's agreement with the DEPARTMENT. In the event CONTRACTOR fails to pay such costs within 30
days after receipt of an invoice from DEPARTMENT, funds will be withheld from payment requests and at the completion of Work, a Change Order or proposed Change Order will be issued incorporating the unpaid amount, and DEPARTMENT will be entitled to an appropriate decrease in Contract price. In the event that CONTRACTOR requests a substitution for a previously approved item, all of ENGINEER’S costs in the reviewing and approval of the substitution will be back-charged to CONTRACTOR unless the need for such substitution is beyond the control of CONTRACTOR.

J. Shop Drawings shall be submitted well in advance of the need for the material or equipment for construction and with ample allowance for the time required to make delivery of material or equipment after data covering such is approved. CONTRACTOR shall assume the risk for all materials or equipment which are fabricated or delivered prior to the approval of Shop Drawings. Materials or equipment will not be included in periodic progress payments until approval thereof has been obtained in the specified manner.

K. ENGINEER will review and approve or disapprove Shop Drawings and samples within 14 days of receipt from CONTRACTOR. The ENGINEER will process all submittals promptly, but a reasonable time should be allowed for this, for the Shop Drawings being revised and resubmitted, and for time required to return the approved Shop Drawings to CONTRACTOR.

L. It is CONTRACTOR’S responsibility to review submittals made by his suppliers and Subcontractors before transmitting them to ENGINEER to assure proper coordination of the Work and to determine that each submittal is in accordance with his desires and that there is sufficient information about materials and equipment for ENGINEER to determine compliance with the Contract Documents. Incomplete or inadequate submittals will be returned for revision without review.

M. Any related Work performed or equipment installed without an "Approved" or "Approved as Noted" Shop Drawing will be at the sole responsibility of the CONTRACTOR.

1.6 ENGINEER’S REVIEW

A. Timing: ENGINEER’s review will conform with timing indicated in the Schedule of Submittals accepted by ENGINEER.

B. Submittals not required by the Contract Documents will not be reviewed by ENGINEER and will not be recorded in ENGINEER’s submittal log. All printed copies of such submittals will be returned to CONTRACTOR. Electronic copies of such submittals, if any, will not be retained by ENGINEER.

C. Action Submittals, Results of ENGINEER’s Review: Each submittal will be given one of the following dispositions by ENGINEER:
1. Approved: Upon return of submittal marked “Approved”, order, ship, or fabricate materials and equipment included in the submittal (pending ENGINEER’s approval or acceptance, as applicable, of source quality control submittals) or otherwise proceed with the Work in accordance with the submittal and the Contract Documents.

2. Approved as Corrected: Upon return of submittal marked “Approved as Corrected”, order, ship, or fabricate materials and equipment included in the submittal (pending ENGINEER’s approval or acceptance, as applicable, of source quality control submittals) or otherwise proceed with the Work in accordance with the submittal and the Contract Documents, and in accordance with the corrections indicated in the ENGINEER’s submittal response.

3. Approved as Corrected – Resubmit: Upon return of submittal marked “Approved as Corrected – Resubmit”, order, ship, or fabricate materials and equipment included in the submittal (pending ENGINEER’s approval or acceptance, as applicable, of source quality control submittals) or otherwise proceed with the Work in accordance with the submittal and the Contract Documents, and in accordance with corrections indicated in ENGINEER’s submittal response. Furnish to ENGINEER record re-submittal with all corrections made. Receipt of corrected re-submittal is required before materials or equipment covered in the submittal will be eligible for payment.

4. Revise and Resubmit: Upon return of submittal marked “Revise and Resubmit”, make the corrections indicated and re-submit to ENGINEER for approval.

5. Not Approved: This disposition indicates material or equipment that cannot be approved. “Not Approved” disposition may also be applied to submittals that are incomplete. Upon return of submittal marked “Not Approved”, repeat initial submittal procedure utilizing approvable material or equipment, with a complete submittal clearly indicating all information required.

D. Informational Submittals, Results of ENGINEER’s Review:
1. Each submittal will be given one of the following dispositions:
   a. Accepted: Information included in submittal complies with the applicable requirements of the Contract Documents and is acceptable. No further action by CONTRACTOR is required relative to this submittal, and the Work covered by the submittal may proceed, and materials and equipment with submittals with this disposition may be shipped or operated, as applicable.
   b. Not Accepted: Submittal does not indicate compliance with applicable requirements of the Contract Documents and is not acceptable. Revise submittal and re-submit to indicate acceptability and compliance with the Contract Documents.

E. Closeout Submittals, Results of ENGINEER’s Review: Dispositions and meanings are the same as specified for Informational Submittals. When acceptable, Closeout Submittals will not receive a written response from ENGINEER. Disposition as “accepted” will be recorded in ENGINEER’s submittal log. When Closeout
Submittal is not acceptable, ENGINEER will provide written response to CONTRACTOR.

F. Maintenance Material Submittals, Results of ENGINEER’s Review: Dispositions and meanings are the same as specified for Informational Submittals. When acceptable, Maintenance Material Submittals will not receive a written response from ENGINEER. Disposition as “accepted” will be recorded in ENGINEER’s submittal log. When Maintenance Material Submittal is not acceptable, ENGINEER will provide written response to CONTRACTOR, and CONTRACTOR is responsible for costs associated with transporting and handling of maintenance materials until compliance with the Contract Documents is achieved.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

++ END OF SECTION ++
<table>
<thead>
<tr>
<th>Section</th>
<th>Submittal</th>
<th>Additional Requirements/Information</th>
<th>Type of Submittal</th>
<th>Submission Timing/Associated Work Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>Article 5</td>
<td>a Form of Bid Silled out (Section V Article 1a)</td>
<td>Section X Standard Specifications: Section 01 33 00</td>
<td>With bid</td>
<td>Within 5 days of low bid notification</td>
</tr>
<tr>
<td>Article 5</td>
<td>a Bid Bond or Certified Check (Section V Article 1d)</td>
<td>Section X Standard Specifications: Section 01 33 00</td>
<td>With bid</td>
<td>Within 5 days of low bid notification</td>
</tr>
<tr>
<td>Article 5</td>
<td>a Non-Collusion Certificate (Section V Article 1b)</td>
<td>Section X Standard Specifications: Section 01 33 00</td>
<td>With bid</td>
<td>Within 5 days of low bid notification</td>
</tr>
<tr>
<td>Article 5</td>
<td>a Macnlyte FA Employment Principles (signed) (Section V Article 1b)</td>
<td>Section X Standard Specifications: Section 01 33 00</td>
<td>With bid</td>
<td>Within 5 days of low bid notification</td>
</tr>
<tr>
<td>Article 5</td>
<td>a Offier's Affirmation of Understanding of and Agreement pursuant to State Finance Law 139-p(3) and 139-p(6) (b) (signed) (Section V Article 1b)</td>
<td>Section X Standard Specifications: Section 01 33 00</td>
<td>With bid</td>
<td>Within 5 days of low bid notification</td>
</tr>
<tr>
<td>Article 5</td>
<td>a Offerer Disclosure of Prior Non-Responsibility Determinations (signed) (Section V Article 1e)</td>
<td>Section X Standard Specifications: Section 01 33 00</td>
<td>With bid</td>
<td>Within 5 days of low bid notification</td>
</tr>
<tr>
<td>Article 5</td>
<td>a Vendor Assurance of No Conflict of Interest or Detrimental Effect (Section V Article 1e)</td>
<td>Section X Standard Specifications: Section 01 33 00</td>
<td>With bid</td>
<td>Within 5 days of low bid notification</td>
</tr>
<tr>
<td>Article 5</td>
<td>a Sexual Harassment Prevention Certificate (Section V Article 1g)</td>
<td>Section X Standard Specifications: Section 01 33 00</td>
<td>With bid</td>
<td>Within 5 days of low bid notification</td>
</tr>
<tr>
<td>Article 5</td>
<td>b Off-site permitted facility to receive material along with copy of the facilities permit (Five-Day Submittal Package)</td>
<td>Section X Standard Specifications: Section 01 33 00</td>
<td>With bid</td>
<td>Within 5 days of low bid notification</td>
</tr>
<tr>
<td>Article 5</td>
<td>b Plan of Operations (Work Plan) and Progress Schedule, Health and Safety Plan, Sampling Plan, and QA/QC Plan (Five-Day Submittal Package)</td>
<td>Section X Standard Specifications: Section 01 33 00</td>
<td>With bid</td>
<td>Within 5 days of low bid notification</td>
</tr>
<tr>
<td>Article 5</td>
<td>b Statement of Surety's intent (Section V Article 2a) (Five-Day Submittal Package)</td>
<td>Section X Standard Specifications: Section 01 33 00</td>
<td>With bid</td>
<td>Within 5 days of low bid notification</td>
</tr>
<tr>
<td>Article 5</td>
<td>b Copy of Site Pollution Liability insurance policy demonstrating that the bidder has the required $5 million of Pollution Liability insurance. (Five-Day Submittal Package)</td>
<td>Section X Standard Specifications: Section 01 33 00</td>
<td>With bid</td>
<td>Within 5 days of low bid notification</td>
</tr>
<tr>
<td>Article 5</td>
<td>b Vendor Responsibility Questionnaire or affidavit of no change (in accordance with Section V Article 2c) (Five-Day Submittal Package)</td>
<td>Section X Standard Specifications: Section 01 33 00</td>
<td>With bid</td>
<td>Within 5 days of low bid notification</td>
</tr>
<tr>
<td>Article 5</td>
<td>b Policy Statement and M/WBE Work plan (in accordance with Section V Article 2b) (Five-Day Submittal Package)</td>
<td>Section X Standard Specifications: Section 01 33 00</td>
<td>With bid</td>
<td>Within 5 days of low bid notification</td>
</tr>
<tr>
<td>Article 5</td>
<td>b Description of projects completed by Bidder documenting its experience (Five-Day Submittal Package)</td>
<td>Section X Standard Specifications: Section 01 33 00</td>
<td>With bid</td>
<td>Within 5 days of low bid notification</td>
</tr>
<tr>
<td>Article 5</td>
<td>b Any other information that demonstrates Bidder's ability to perform the work (Five-Day Submittal Package)</td>
<td>Section X Standard Specifications: Section 01 33 00</td>
<td>With bid</td>
<td>Within 5 days of low bid notification</td>
</tr>
<tr>
<td>Article 5</td>
<td>c Executed Agreement (Fourteen-Day Submittal Package)</td>
<td>Section X Standard Specifications: Section 01 33 00</td>
<td>With bid</td>
<td>Within 14 days of Notice of Intent to Award</td>
</tr>
<tr>
<td>Article 5</td>
<td>c Performance Bond with Power of Attorney &amp; Surety Financial Statement (Section V Article 3c) (Fourteen-Day Submittal Package)</td>
<td>Section X Standard Specifications: Section 01 33 00</td>
<td>With bid</td>
<td>Within 14 days of Notice of Intent to Award</td>
</tr>
<tr>
<td>Article 5</td>
<td>c Labor &amp; Materials Bond with Power of Attorney &amp; Surety Financial Statement (Section V Article 3d) (Fourteen-Day Submittal Package)</td>
<td>Section X Standard Specifications: Section 01 33 00</td>
<td>With bid</td>
<td>Within 14 days of Notice of Intent to Award</td>
</tr>
<tr>
<td>Article 5</td>
<td>c Bid Breakdown of Items (Fourteen-Day Submittal Package)</td>
<td>Section X Standard Specifications: Section 01 29 73</td>
<td>With bid</td>
<td>Within 14 days of Notice of Intent to Award</td>
</tr>
<tr>
<td>Article 5</td>
<td>c Consultant/Contractor Detailed M/WBE-EEO Utilization Plan (Section V Article 2b) (Fourteen-Day Submittal Package)</td>
<td>Section X Standard Specifications: Section 01 33 00</td>
<td>With bid</td>
<td>Within 14 days of Notice of Intent to Award</td>
</tr>
<tr>
<td>Article 12</td>
<td>Bid Breakdown</td>
<td>Section X Standard Specifications: Section 01 33 00</td>
<td>With bid</td>
<td>Within 14 days of Notice of Intent to Award</td>
</tr>
</tbody>
</table>

**SECTION VIII - GENERAL CONDITIONS**

1.4.1 Interim Progress Schedule (Five-Day Submittal Package) | Within 10 days after Notice of Award, prior to commencement of work |
1.4.2 Interim Schedule of Shop Drawing, Material, Soil Characteristic, Sample Collection, and Analytical Test Result Submissions | Within 10 days after Notice of Award, prior to commencement of work |
1.4.3 Interim Schedule of Values | Within 10 days after Notice of Award, prior to commencement of work |
1.6 Proposed Progress Schedule (CPM/Schedule of Values/User Manual) | Within 10 days after Notice of Award, prior to commencement of work |
3.2 Copies of all permits/approvals for use of premises not furnished by NYSDEC under Section 3.1 | Before utilization of associated areas |
5.24 to 5.30 Shop Drawings (6 hard copies and electronic copy) | With promptness as to cause no delay in Work |
5.24 to 5.30 Samples | With promptness as to cause no delay in Work |
5.3.3 Proposed Revised Accelerated Schedule | At least 10 working days in advance of the proposed acceleration period |
9.2 Written notification of an Increase in Contract Price or Contract Time due to a Field Order. Written notification within 3 days of a Field Order Documentation within 15 days of a Field Order |
9.4 Contractor proposals substantiating the amount and extent of any proposed adjustment in Contract Price or Contract Time due to a Proposed Change Order. | Within 3 days of receipt (or issuance) of a Proposed Change Order initiated by Department (or Contractor)
<table>
<thead>
<tr>
<th>Section</th>
<th>Submittal</th>
<th>Additional Requirements/Information</th>
<th>Type of Submittal</th>
<th>Submission Timing/Associated Work Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.4</td>
<td>Written Notice of Intent to appeal Department's determination or to file a claim in accordance with Article 8 of the General Conditions.</td>
<td></td>
<td></td>
<td>Within 30 days of the issuance of a Proposed Change Order or the rejection of a Proposed Changed Order</td>
</tr>
<tr>
<td>9.5.2.1</td>
<td>Detailed supporting data to allow negotiation of outstanding issues upon receipt of a Proposed Change Order.</td>
<td></td>
<td></td>
<td>Within 15 days of receipt of a Proposed Change Order</td>
</tr>
<tr>
<td>9.6</td>
<td>Proof of notification of warranty if required as a result of an accepted Change Order.</td>
<td></td>
<td></td>
<td>As soon as possible upon notification of the warranty</td>
</tr>
<tr>
<td>10.12.1</td>
<td>Requests substantiating the extent of increase in Contract Time.</td>
<td></td>
<td></td>
<td>Within 15 days of the event causing the proposed need for the extension unless Department, in writing, allows an additional period of time.</td>
</tr>
</tbody>
</table>

SECTION X - STANDARD SPECIFICATIONS

SECTION 01 25 00 - Substitution Procedures

1.2, 1.3, and 1.4 Substitution Request Form (for each proposed substitution)  
Section VIII General Conditions: Article 5.7  
Action  
For materials and equipment: Submitted to allow a reasonable time as determined by the DEPARTMENT to evaluate the proposed substitution, at least 20 days prior to work associated with the proposed Substitution.
For construction methods or procedures: within 15 days of the Effective Date of the Agreement.

1.2, 1.3, and 1.4 Proposed Substitution Checklist (for each proposed substitution)  
Section VIII General Conditions: Article 5.7  
Action  
For materials and equipment: Submitted to allow a reasonable time as determined by the DEPARTMENT to evaluate the proposed substitution, at least 20 days prior to work associated with the proposed Substitution.
For construction methods or procedures: within 15 days of the Effective Date of the Agreement.

SECTION 01 26 00 - Contract Modification Procedures

1.2 and 1.3 Request for Interpretation Form  
Section VIII General Conditions: Articles 9 and 10  
Informational  
At least 20 days prior to work associated with the request

1.2 and 1.3 Additional information as requested by ENGINEER in response to a Request for Interpretation  
Section VIII General Conditions: Articles 9 and 10  
Informational  
Within 10 days of the request for additional information, unless more time is allowed by ENGINEER

1.2 and 1.3 Written notification that the CONTRACTOR believes ENGINEER's response to a Request for Interpretation would result in a change in Contract Price or Contract Time.  
Section VIII General Conditions: Articles 9 and 10  
Informational  
Within 3 days of receipt of the response, and prior to proceeding with work associated with the response

1.2 and 1.4 Written notification that the CONTRACTOR believes a Field Order requires a change in the Contract Price or Contract Time or other change to the Contract  
Section VIII General Conditions: Articles 9 and 10  
Informational  
Within 3 days of receipt of the Field Order, and prior to proceeding with work associated with the Field Order.

1.2, 1.5, and 1.6 Proposed Change Order Form  
Section VIII General Conditions: Articles 9 and 10  
Informational  
Within 15 days of receipt of the Field Order or Request for Iteration response resulting in the change, and with a reasonable amount of time for evaluation prior to work associated with the Proposed Change Order.

1.2 and 1.6 Additional information as requested by ENGINEER in response to a Proposed Change Order  
Section VIII General Conditions: Articles 9 and 10  
Informational  
Within 3 days of the request for additional information, unless more time is allowed by ENGINEER

1.2 and 1.6 Claim against DEPARTMENT if parties do not agree on terms for a Proposed Change Order  
Section VIII General Conditions: Articles 8, 9, and 10  
Informational  
Within 30 days of issuance of a Proposed Change Order or rejection of a Proposed Change Order.

1.2 and 1.7 Approved Change Order (3 signed original hard copies)  
Section VIII General Conditions: Articles 9 and 10  
Informational  
Within 5 days of receipt of a Change Order

SECTION 01 29 73 - Bid Breakdown (Schedule of Values)

1.2 A Preliminary Bid Breakdown (Fourteen-Day Submittal Package)  
Section III Bidding Information and Requirements, Articles 5 and 12  
Section VIII General Conditions, Articles 1 and 13  
Section X Standard Specifications, Section 01 33 00  
Section XII Measurement for Payment  
Action  
Within 14 days following the date of the Notice of Intent to Award Letter from the DEPARTMENT.

1.2 B Bid Breakdown  
Section III Bidding Information and Requirements, Articles 5 and 12  
Section VIII General Conditions, Articles 1 and 13  
Section X Standard Specifications, Section 01 33 00  
Section XII Measurement for Payment  
Action  
No later than 20 days after starting work at the site, in accordance with General Conditions Article 1.6.

1.2 C Updated Bid Breakdown  
Section III Bidding Information and Requirements, Articles 5 and 12  
Section VIII General Conditions, Articles 1 and 13  
Section X Standard Specifications, Section 01 33 00  
Section XII Measurement for Payment  
Action  
When required by ENGINEER for changes in the Contract Price.

Contract No. D012107  
01 33 00A-2  
June 2022
<table>
<thead>
<tr>
<th>Section</th>
<th>Submittal</th>
<th>Additional Requirements/Information</th>
<th>Type of Submittal</th>
<th>Submission Timing/Associated Work Task</th>
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</thead>
<tbody>
<tr>
<td><strong>SECTION 01 31 19.13 - Pre-Construction Conference</strong></td>
<td></td>
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</tr>
<tr>
<td>1.2.C</td>
<td>Pre-Construction Conference Handouts (sufficient hard copies for all attendees): Preliminary Progress Schedule Preliminary Schedule of Submittals Preliminary Bid Breakdown Listing of planned Subcontractors and Supplies and their general scope of Work List of emergency contact information</td>
<td>Informational</td>
<td>Supplied by CONTRACTOR at the Pre-Construction Conference which will be held no later than 20 days after the Effective Date of Agreement and before the CONTRACTOR starts Work at the site, as set by the DEPARTMENT.</td>
<td></td>
</tr>
<tr>
<td><strong>SECTION 01 31 19.23 - Progress Meetings</strong></td>
<td></td>
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</tr>
<tr>
<td>1.2.C</td>
<td>Progress Meeting Handouts (at least 8 hard copies): List of Work accomplished since previous Progress Meeting Updated Progress Schedule Health and Safety Summary Quality Control Testing Summary Detailed &quot;look-ahead&quot; schedule of Work planned through the next Progress Meeting List of upcoming, planned time off for personnel with significant roles and the designated person in their absence</td>
<td>Informational</td>
<td>Supplied by CONTRACTOR at each Progress Meeting held twice per month on a day and time agreeable to DEPARTMENT, ENGINEER, and CONTRACTOR</td>
<td></td>
</tr>
<tr>
<td><strong>SECTION 01 32 16 - Progress Schedule</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.2.A.1</td>
<td>Interim Progress Schedule (3 Months in detail and remainder of Work in summary form) <strong>(Five-Day Submittal Package)</strong></td>
<td>Section III Bidding Information and Requirements, Article 5 Section VIII General Conditions, Article 1.4 Section X Standard Specifications, Section 01 33 00</td>
<td>Informational</td>
<td>Within 5 days following the date of the Notice of Intent to Award Letter from the DEPARTMENT</td>
</tr>
<tr>
<td>1.2.A.2</td>
<td>Preliminary Progress Schedule with CPM Diagram and Schedule Narrative</td>
<td>Section VIII General Conditions, Articles 1.4 and 1.6 Section X Standard Specifications, Section 01 33 00</td>
<td>Informational</td>
<td>Prior to starting Work at the Site</td>
</tr>
<tr>
<td>1.2.A.2</td>
<td>Baseline Progress Schedule</td>
<td>Section VIII General Conditions, Articles 1.4 and 1.6 Section X Standard Specifications, Section 01 33 00</td>
<td>Informational</td>
<td>Upon addressing ENGINEER's comments, no longer than 20 days after starting Work at the Site</td>
</tr>
<tr>
<td>1.2.A.2</td>
<td>Bi-Monthly Progress Schedules with 2-week look ahead</td>
<td></td>
<td>Informational</td>
<td>Every 2 weeks during project and prior to each Progress Meeting</td>
</tr>
<tr>
<td>1.2.A.2</td>
<td>Updated Progress Schedule or written statement indicated the schedule is unchanged from the previous submittal</td>
<td></td>
<td>Informational</td>
<td>With each Application for Payment</td>
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<tr>
<td>1.2.A.3</td>
<td>Recovery Project Schedules</td>
<td></td>
<td>Informational</td>
<td>Within 5 days of submittal of a Progress Schedule where need for a Recovery Schedule is indicated</td>
</tr>
<tr>
<td><strong>SECTION 01 32 33 - Aerial and Ground Photographic Documentation</strong></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>1.5.A.1</td>
<td>Remote Pilot Certificate</td>
<td></td>
<td>Informational</td>
<td>At least 20 days prior to Work at the Site</td>
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<tr>
<td>1.5.A.2</td>
<td>Insurance</td>
<td></td>
<td>Action</td>
<td>At least 20 days prior to Work at the Site</td>
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<tr>
<td>1.5.B</td>
<td>Flight authorization documentation</td>
<td></td>
<td>Action</td>
<td>As needed before each flight</td>
</tr>
<tr>
<td>1.5.C.1</td>
<td>UAS Mission Planning Form</td>
<td></td>
<td>Action</td>
<td>At least 20 days prior to Work at the Site</td>
</tr>
<tr>
<td>1.5.D.1</td>
<td>Pre-construction photo documentation</td>
<td></td>
<td>Informational</td>
<td>No later than first Application for Payment, unless other schedule is accepted by ENGINEER</td>
</tr>
<tr>
<td>1.5.D.2</td>
<td>Construction progress photo documentation</td>
<td></td>
<td>Informational</td>
<td>At least monthly, with each Application for Payment</td>
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<tr>
<td>1.5.D.3</td>
<td>Pre-final photo documentation</td>
<td></td>
<td>Informational</td>
<td>With written notice requesting Final Inspection</td>
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<tr>
<td>1.5.D.4</td>
<td>Pre-flight checklist</td>
<td></td>
<td>Informational</td>
<td>With photo documentation</td>
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<tr>
<td>1.5.D.5</td>
<td>Qualifications of construction photographer</td>
<td></td>
<td>Informational</td>
<td>Prior to starting photographic documentation</td>
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<tr>
<td>1.5.E.1</td>
<td>Final photographic documentation</td>
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<td>Closeout</td>
<td>Prior to Final Demobilization</td>
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<tr>
<td>Section</td>
<td>Submittal</td>
<td>Additional Requirements/Information</td>
<td>Type of Submittal</td>
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<tr>
<td>1.3.A</td>
<td>Copies of the permits for any off-site disposal facilities (Five-Day Submittal Package)</td>
<td>SECTION III Bidding Information and Requirements, Article 5 Informational</td>
<td>Within 5 days following the date of the Notice of Intent to Award Letter from the DEPARTMENT</td>
<td></td>
</tr>
<tr>
<td>1.3.A</td>
<td>Preliminary Work Plan (Five-Day Submittal Package)</td>
<td>Section III Bidding Information and Requirements: Article 5 Informational</td>
<td>Within 5 days following the date of the Notice of Intent to Award Letter from the DEPARTMENT</td>
<td></td>
</tr>
<tr>
<td>1.3.A</td>
<td>Statement of Surety's Intent (Five-Day Submittal Package)</td>
<td>Section III Bidding Information and Requirements, Article 5 Informational</td>
<td>Within 5 days following the date of the Notice of Intent to Award Letter from the DEPARTMENT</td>
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<tr>
<td>1.3.A</td>
<td>Description of projects completed by CONTRACTOR documenting experience (Five-Day Submittal Package)</td>
<td>Section III Bidding Information and Requirements, Article 5 Informational</td>
<td>Within 5 days following the date of the Notice of Intent to Award Letter from the DEPARTMENT</td>
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<tr>
<td>1.3.A</td>
<td>Completed NYS Vendor Responsibility Form, affidavit of no change, or letter certifying that the forms were completed and submitted using the OSC online VendRep System (Five-Day Submittal Package)</td>
<td>Section III Bidding Information and Requirements, Article 5 Informational</td>
<td>Within 5 days following the date of the Notice of Intent to Award Letter from the DEPARTMENT</td>
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<tr>
<td>1.3.A</td>
<td>Authorizing Resolution stating that a certain individual has the authority to sign the Contract on behalf of the CONTRACTOR (Five-Day Submittal Package)</td>
<td>Section III Bidding Information and Requirements, Article 5 Informational</td>
<td>Within 5 days following the date of the Notice of Intent to Award Letter from the DEPARTMENT</td>
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<tr>
<td>1.3.A</td>
<td>Executed copies of the Agreement - 4 hard copies (Fourteen-Day Submittal Package)</td>
<td>Section III Bidding Information and Requirements, Article 5 Informational</td>
<td>Within 14 days following the date of the Notice of Intent to Award Letter from the DEPARTMENT</td>
<td></td>
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<tr>
<td>1.3.A</td>
<td>Performance Bond with Power of Attorney &amp; Surety Financial Statement - original and 3 copies (Fourteen-Day Submittal Package)</td>
<td>Section III Bidding Information and Requirements, Article 5 Informational</td>
<td>Within 14 days following the date of the Notice of Intent to Award Letter from the DEPARTMENT</td>
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<tr>
<td>1.3.A</td>
<td>Labor &amp; Materials Bond with Power of Attorney &amp; Surety Financial Statement - original and 3 copies (Fourteen-Day Submittal Package)</td>
<td>Section III Bidding Information and Requirements, Article 5 Informational</td>
<td>Within 14 days following the date of the Notice of Intent to Award Letter from the DEPARTMENT</td>
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<td>1.3.A</td>
<td>Certificates of Insurance (Fourteen-Day Submittal Package)</td>
<td>Section III Bidding Information and Requirements, Article 5 Informational</td>
<td>Within 14 days following the date of the Notice of Intent to Award Letter from the DEPARTMENT</td>
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<tr>
<td>1.3.A</td>
<td>M/WBE-EEO Utilization Plan or a letter certifying that the plan was completed and submitted using the DEPARTMENT's online M/WBE System (Fourteen-Day Submittal Package)</td>
<td>Section III Bidding Information and Requirements, Article 5 Informational</td>
<td>Within 14 days following the date of the Notice of Intent to Award Letter from the DEPARTMENT</td>
<td></td>
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<tr>
<td>1.3.A</td>
<td>Service-Disabled Veteran-Owned Business SDVOB Utilization Plan (Fourteen-Day Submittal Package)</td>
<td>Section III Bidding Information and Requirements, Article 5 Informational</td>
<td>Within 14 days following the date of the Notice of Intent to Award Letter from the DEPARTMENT</td>
<td></td>
</tr>
<tr>
<td>1.3.C</td>
<td>Draft Work Plan (with satisfactory responses and revisions to comments received on Preliminary Work Plan)</td>
<td>Section III Bidding Information and Requirements: Article 5 Informational</td>
<td>The sooner of 7 days prior to pre-construction conference or 30 days prior to scheduled mobilization.</td>
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<td>Section</td>
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<td>Type of Submittal</td>
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<tr>
<td>1.3.D</td>
<td>Final Work Plan (with satisfactory responses and revisions to comments received)</td>
<td>Section III Bidding Information and Requirements: Article 5 Section X Standard Specifications: Section 00 030 Section X Standard Specifications: Section 01 35 13 Section X Supplemental Specifications: Section 01 14 35 Section X Supplemental Specifications: Section 01 55 26 Section X Supplemental Specifications: Section 02 41 19 Section X Supplemental Specifications: Section 02 72 00 Section X Supplemental Specifications: Section 02 80 01 Section X Supplemental Specifications: Section 13 50 00 Section X Supplemental Specifications: Section 31 11 00 Section X Supplemental Specifications: Section 31 23 16 Section X Supplemental Specifications: Section 31 23 19 Section X Supplemental Specifications: Section 31 32 00 Section X Supplemental Specifications: Section 35 60 00</td>
<td>Action</td>
<td>Prior to starting Work at the Site</td>
</tr>
<tr>
<td>1.3.D</td>
<td>Preliminary Schedule of Submittals</td>
<td>Action</td>
<td>Prior to starting Work at the Site</td>
<td></td>
</tr>
<tr>
<td>1.3.E</td>
<td>Final Schedule of Submittals</td>
<td>Action</td>
<td>No later than 20 days after starting work at the site</td>
<td></td>
</tr>
<tr>
<td>1.3.F</td>
<td>Updated Schedule of Submittals</td>
<td>Informational</td>
<td>With every updated Progress Schedule submittal: every 2 weeks during project, prior to each Progress Meeting, and with each Application for Payment</td>
<td></td>
</tr>
</tbody>
</table>

### SECTION 01 35 29 - Contractor's Health and Safety Plan

| 1.4.A and 1.5 | Preliminary SSHASP (Five-Day Submittal Package) | Section III Bidding Information and Requirements: Article 5 Section III Bidding Information and Requirements: Article 10 Section VIII General Conditions: Article 5.20 to 5.23 Section X Standard Specifications: Section 01 35 33 Section X Standard Specifications: Section 01 35 33 Section X Standard Specifications: Section 01 35 33 Section X Standard Specifications: Section 01 35 43.13 Section X Standard Specifications: Section 01 76 59 | Informational | Within 5 days following the date of the Notice of Intent to Award Letter from the DEPARTMENT |
| 1.4.A and 1.5 | Draft Site Specific Health and Safety Plan | Section III Bidding Information and Requirements: Article 5 Section III Bidding Information and Requirements: Article 10 Section VIII General Conditions: Article 5.20 to 5.23 Section X Standard Specifications: Section 01 35 33 Section X Standard Specifications: Section 01 35 33 Section X Standard Specifications: Section 01 35 33 Section X Standard Specifications: Section 01 35 43.13 Section X Standard Specifications: Section 01 76 59 | Informational | The sooner of: 7 days prior to pre-construction conference or 30 days prior to scheduled mobilization. |
| 1.4.A and 1.5 | Final Site Specific Health and Safety Plan | Section III Bidding Information and Requirements: Article 5 Section III Bidding Information and Requirements: Article 10 Section VIII General Conditions: Article 5.20 to 5.23 Section X Standard Specifications: Section 01 35 33 Section X Standard Specifications: Section 01 35 33 Section X Standard Specifications: Section 01 35 33 Section X Standard Specifications: Section 01 35 43.13 Section X Standard Specifications: Section 01 76 59 | Informational | Prior to starting Work at the Site |
| 1.4.A and 1.5 | Job safety analysis (JSA) for each action not covered by the SSHASP | Informational | 30 days prior to starting Work associated with the JSA |
| 1.4.A and 1.7 | Accident reports | Informational | Within 24 hours of an accident |
| 1.4.A and 1.7 | Monthly Summary of Accident Reports | Informational | By the 10th day of each month for the prior month |
| 1.4.A and 1.7 | Accident, health, or safety hazard reports or violations received from OSHA or other authorities having jurisdiction | Informational | Within 24 hours of CONTRACTOR's receipt |
| 1.4.A and 1.8 | Daily Health and Safety Field Reports | Section X Standard Specifications, Section 01 35 33 | Informational | Within 7 days of each day in which Work was performed |

### SECTION 01 35 33 - COVID-19 Risk Management

<p>| 1.6.A | COVID-19 Management Plan as a component of the Site Specific Health and Safety Plan as required by Section X Standard Specifications: Section 01 35 29 - Contractor's Health and Safety Plan | See Section X Standard Specifications: Section 01 35 29 - Contractor's Health and Safety Plan |
| 1.6.B | One-page summary of site-specific practices as part of the Site Specific Health and Safety Plan as required by Section X Standard Specifications: Section 01 35 29 - Contractor's Health and Safety Plan | See Section X Standard Specifications: Section 01 35 29 - Contractor's Health and Safety Plan |</p>
<table>
<thead>
<tr>
<th>Section</th>
<th>Submittal</th>
<th>Additional Requirements/Information</th>
<th>Type of Submittal</th>
<th>Submission Timing/Associated Work Task</th>
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</thead>
<tbody>
<tr>
<td>1.4 A</td>
<td>Form &quot;A&quot; Summary of Green Remediation Metrics</td>
<td>-</td>
<td>Informational</td>
<td>With each Application for Payment</td>
</tr>
<tr>
<td>1.4 B</td>
<td>Green Remediation Plan as a component of the Work Plan as required by Section X Standard Specifications: Section 01 33 00 - Submittal Procedures</td>
<td>See Section X Standard Specifications: Section 01 33 00 - Submittal Procedures</td>
<td>-</td>
<td>-</td>
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<tr>
<td>1.4 C</td>
<td>Part 248 Annual Report and Vehicle Inventory Forms</td>
<td>-</td>
<td>Informational</td>
<td>Submit by September 30 for each reporting period in which work was completed. Reporting periods are September 1 to August 31</td>
</tr>
<tr>
<td>SECTION 01 35 43.13 - Environmental Procedures for Hazardous Materials</td>
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<tr>
<td>1.3 A</td>
<td>Constituents of concern proposed for use on site</td>
<td>Informational</td>
<td>Informational</td>
<td>-</td>
</tr>
<tr>
<td>1.3 B</td>
<td>Identification number, analysis results, and number and size of storage containers of materials containing Constituents of Concerns generated at the Site</td>
<td>Informational</td>
<td>Informational</td>
<td>-</td>
</tr>
<tr>
<td>1.3 C</td>
<td>Permits for storage, handling, using, transporting, and disposing of materials containing Constituents of Concern</td>
<td>Informational</td>
<td>Informational</td>
<td>-</td>
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<tr>
<td>1.3 D</td>
<td>Other documents required for the HMMP, as components of the Site Specific Health and Safety Plan as required by Section X Standard Specifications: 01 35 29 - Contractor's Health and Safety Plan, including: Communications Plan Emergency/Spill Response Plan Other HMMP Documents</td>
<td>See Section X Standard Specifications: Section 01 35 29 - Contractor's Health and Safety Plan</td>
<td>See Section X Standard Specifications: Section 01 35 29 - Contractor's Health and Safety Plan</td>
<td>See Section X Standard Specifications: Section 01 35 29 - Contractor's Health and Safety Plan</td>
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<td>SECTION 01 45 29.13 - Testing Laboratory Services Furnished by Contractor</td>
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<tr>
<td>1.4 A</td>
<td>Preliminary Sampling Plan and Quality Control Project Plan (Five-Day Submittal Package)</td>
<td>Section III Bidding Information and Requirements, Article 5 Section X Standard Specifications, Section 01 33 00</td>
<td>Informational</td>
<td>Within 5 days following the date of the Notice of Intent to Award Letter from the DEPARTMENT</td>
</tr>
<tr>
<td>1.4 B</td>
<td>Draft Sampling Plan and Quality Control Project Plan</td>
<td>Section III Bidding Information and Requirements, Article 5 Section X Standard Specifications, Section 01 33 00</td>
<td>Informational</td>
<td>The sooner of: 3 days prior to pre-construction conference or 30 days prior to scheduled mobilization</td>
</tr>
<tr>
<td>1.4 C</td>
<td>Final Sampling Plan and Quality Control Project Plan</td>
<td>Section III Bidding Information and Requirements, Article 5 Section X Standard Specifications, Section 01 33 00</td>
<td>Informational</td>
<td>Prior to starting Work at the Site</td>
</tr>
<tr>
<td>1.4 D</td>
<td>Preliminary QAPP (Five-Day Submittal Package)</td>
<td>Section III Bidding Information and Requirements, Article 5 Section X Standard Specifications, Section 01 33 00</td>
<td>Informational</td>
<td>Within 5 days following the date of the Notice of Intent to Award Letter from the DEPARTMENT</td>
</tr>
<tr>
<td>1.4 E</td>
<td>Draft QAPP</td>
<td>Section III Bidding Information and Requirements, Article 5 Section X Standard Specifications, Section 01 33 00</td>
<td>Informational</td>
<td>The sooner of: 7 days prior to pre-construction conference or 30 days prior to scheduled mobilization</td>
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<td>1.4 F</td>
<td>Final QAPP</td>
<td>Section III Bidding Information and Requirements, Article 5 Section X Standard Specifications, Section 01 33 00</td>
<td>Informational</td>
<td>Prior to starting Work at the Site</td>
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<td>SECTION 01 51 05 - Temporary Utilities and Controls</td>
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<tr>
<td>1.2 A</td>
<td>Temporary Utility and Temporary Facilities Plan as a component of the Work Plan as required by Section X Standard Specifications: Section 01 33 00 - Submittal Procedures</td>
<td>See Section X Standard Specifications: Section 01 33 00 - Submittal Procedures</td>
<td>Informational</td>
<td>At least 20 days prior to Work associated with the drawings</td>
</tr>
<tr>
<td>1.2 B</td>
<td>Shop drawings of temporary utilities and facilities</td>
<td>Informational</td>
<td>Informational</td>
<td>At least 20 days prior to Work associated with the products</td>
</tr>
<tr>
<td>1.2 C</td>
<td>Product data for temporary utility connection materials</td>
<td>Informational</td>
<td>Informational</td>
<td>At least 20 days prior to Work associated with the products</td>
</tr>
<tr>
<td>1.2 D</td>
<td>Product data for temporary staging area materials (HDPE liner, geotextile, Type 1 Subbase Course)</td>
<td>Informational</td>
<td>Informational</td>
<td>At least 20 days prior to Work associated with the products</td>
</tr>
<tr>
<td>SECTION 01 52 11 - Engineer's Field Office</td>
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</tr>
<tr>
<td>1.2 A</td>
<td>Shop Drawings for Engineer's field office layout, facilities, etc.</td>
<td>Action</td>
<td>Action</td>
<td>At least 20 days prior to Work associated with drawings</td>
</tr>
<tr>
<td>SECTION 01 52 13 - Contractor's Field Office and Sheds</td>
<td>-</td>
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<td>-</td>
</tr>
<tr>
<td>1.2 A</td>
<td>Shop Drawings for Contractor's field office and shed layout, facilities, etc.</td>
<td>Action</td>
<td>Action</td>
<td>At least 20 days prior to Work associated with drawings</td>
</tr>
<tr>
<td>SECTION 01 55 13 - Access Roads and Parking Areas</td>
<td>-</td>
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</tr>
<tr>
<td>1.4 A</td>
<td>Site Access Plan as a component of the Work Plan as required by Section X Standard Specifications: Section 01 33 00 - Submittal Procedures</td>
<td>See Section X Standard Specifications: Section 01 33 00 - Submittal Procedures</td>
<td>Informational</td>
<td>At least 20 days prior to Work associated with the products</td>
</tr>
<tr>
<td>1.4 B</td>
<td>Product data for temporary construction access roads and parking areas (geotextile, Type 1 Subbase Course)</td>
<td>Informational</td>
<td>Informational</td>
<td>At least 20 days prior to Work associated with the products</td>
</tr>
<tr>
<td>SECTION 01 57 33 - Security</td>
<td>-</td>
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<tr>
<td>1.2 A</td>
<td>Security fence shop drawings</td>
<td>Action</td>
<td>Action</td>
<td>At least 20 days prior to Work at the Site</td>
</tr>
<tr>
<td>1.2 B</td>
<td>Temporary fencing product data</td>
<td>Action</td>
<td>Action</td>
<td>At least 20 days prior to Work at the Site</td>
</tr>
<tr>
<td>1.2 C</td>
<td>Qualifications of security firm</td>
<td>Action</td>
<td>Action</td>
<td>At least 20 days prior to Work at the Site</td>
</tr>
<tr>
<td>1.2 D</td>
<td>Monthly security logs</td>
<td>Informational</td>
<td>Informational</td>
<td>Monthly</td>
</tr>
<tr>
<td>1.2 E</td>
<td>Employee Information</td>
<td>Informational</td>
<td>Informational</td>
<td>At least 20 days prior to Work at the Site</td>
</tr>
<tr>
<td>1.2 F</td>
<td>Site entrance/exit log and watchmen logs</td>
<td>Section X Standard Specifications: Section 01 78 39</td>
<td>Closeout</td>
<td>With project record documents</td>
</tr>
<tr>
<td>Section</td>
<td>Submittal</td>
<td>Additional Requirements/Information</td>
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<td><strong>SECTION 01 58 00 - Project Identification and Signs</strong></td>
<td></td>
<td></td>
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<tr>
<td>1.3.A</td>
<td>Shop drawings of project signs</td>
<td>Action</td>
<td>At least 20 days prior to Work at the Site</td>
<td></td>
</tr>
<tr>
<td>1.3.B</td>
<td>Specifications and product data</td>
<td>Informational</td>
<td>At least 20 days prior to Work at the Site</td>
<td></td>
</tr>
<tr>
<td>1.3.C</td>
<td>Samples</td>
<td>Informational</td>
<td>At least 20 days prior to Work at the Site</td>
<td></td>
</tr>
</tbody>
</table>

| **SECTION 01 62 00 - Product Options** | | | | |
| 1.4.A | "Or-equal" written requests, shop drawings, and product data | Action | At least 20 days prior to Work associated with "or equal" materials |

| **SECTION 01 71 23 - Field Engineering** | | | | |
| 1.2.A | Certificates of survey | Informational | When requested by ENGINEER |
| 1.2.A | Daily Field Engineering Reports | Informational | By 9:00 am the next working day after the day covered in the report |
| 1.2.A | Documentation verifying accuracy of field engineering | Informational | When requested by ENGINEER |
| 1.2.A | Surveying Plan including qualifications of surveyor | Informational | 10 days prior to beginning survey work |
| 1.2.A | Raw instrument data/field data | Informational | Within 2 days following completion of survey work |
| 1.2.A | Qualifications of field engineer, surveyor, and crew chief | Informational | The sooner of: 7 days prior to pre-construction conference or 30 days prior to scheduled mobilization, or 10 days prior to each individual starting onsite Work |
| 1.2.A | Survey records | Closeout | Upon request of the ENGINEER and with Project Record Documents |
| 1.5.A | Nuisance Controls and Management Plan as a component of the Site Specific Health and Safety Plan as required by Section X Standard Specifications: 01 35 29 - Contractor's Health and Safety Plan | | See Section X Standard Specifications: Section 01 35 29 - Contractor's Health and Safety Plan |
| 1.5.B | Nuisance management summary for site display as a component of the Site Specific Health and Safety Plan as required by Section X Standard Specifications: 01 35 29 - Contractor's Health and Safety Plan | | See Section X Standard Specifications: Section 01 35 29 - Contractor's Health and Safety Plan |
| 1.5.C | Weekly Monitoring Reports | Informational | Weekly, no later than 7 days after the week subject of the report has concluded |
| 1.5.D | Example community notifications | Informational | Prior to public distribution |
| 1.5.E | Complaint documentation | Informational | Within 24 hours of receiving a community complaint |
| 1.5.F | Community relations liaison qualifications as a component of the Site Specific Health and Safety Plan as required by Section X Standard Specifications: 01 35 29 - Contractor's Health and Safety Plan | | See Section X Standard Specifications: Section 01 35 29 - Contractor's Health and Safety Plan |

| **SECTION 01 76 50 - Nuisance Control** | | | | |
| 1.2.A | Written notification of substantial completion and request for inspection and issuance of Certificate of Substantial Completion | Action | Upon reaching substantial completion for the Work or portion of the Work |
| 1.2.A | Written notice of final completion | Action | Upon reaching final completion |
| 1.2.A | Request for final payment and acceptance of the Work | Action | As specified by Section VIII General Conditions: Article 13.10 |

| **SECTION 01 78 39 - Project Record Documents** | | | | |
| 1.2.A | Project Record Documents and Certifications | Closeout | Within 7 days following substantial completion of the work |
| 1.2.A | Project Record Documents Revisions | Closeout | Within 10 days following requested revisions |

| **SECTION XI - SUPPLEMENTARY SPECIFICATIONS** | | | | |
| **SECTION 01 14 35 - Winter Shutdown** | | | | |
| 1.3.A | Written Request for Winter Shutdown | Action | At least 21 days before proposed winter shutdown start date |
| 1.3.B | Winter Shutdown Plan | Action | At least 21 days before proposed winter shutdown start date |
| 1.3.C | Manufacturer's data | Informational | At least 14 days prior to use of these materials onsite |
| 1.3.D | Inspection Forms | Informational | Within 5 days of completed inspection |

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<table>
<thead>
<tr>
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<th>Type of Submittal</th>
<th>Submission Timing/Associated Work Task</th>
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</thead>
<tbody>
<tr>
<td>SECTION 01 40 00 - Quality Requirements</td>
<td>1.2.A</td>
<td>Manufacturers' instructions and certificates</td>
<td>Informational</td>
<td>Prior to use of materials</td>
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<td></td>
<td>1.2.B</td>
<td>Weekly Contractor Quality Control Reports</td>
<td>Section X Standard Specifications: Section 07 73 00</td>
<td>Informational</td>
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<tr>
<td></td>
<td>1.4.A</td>
<td>Traffic Control Plan as a component of the Work Plan as required by Section X Standard Specifications: Section 01 33 00 - Submittal Procedures</td>
<td>See Section X Standard Specifications: Section 01 33 00 - Submittal Procedures</td>
<td></td>
</tr>
<tr>
<td>SECTION 01 55 26 - Traffic Control</td>
<td>1.3.A</td>
<td>Structure Inspection Report - Baseline</td>
<td>Action</td>
<td>At least 20 days prior to Work at the Site</td>
</tr>
<tr>
<td></td>
<td>1.3.B</td>
<td>Structure Inspection Report - Closeout</td>
<td>Action</td>
<td>At least 20 days prior to completion of Work at the Site/structure vicinity</td>
</tr>
<tr>
<td></td>
<td>1.3.C</td>
<td>Existing Structure and Infrastructure Protection Plan</td>
<td>Action</td>
<td>At least 20 days prior to Work at the Site</td>
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<tr>
<td></td>
<td>1.3.D</td>
<td>Structure Inspector's Qualifications</td>
<td>Informational</td>
<td>At least 20 days prior to Work at the Site</td>
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SECTION 01 76 00 - Protecting Existing Structures And Infrastructure

<table>
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<th>Section</th>
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<th>Additional Requirements/Information</th>
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<th>Submission Timing/Associated Work Task</th>
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<tbody>
<tr>
<td>1.4.A</td>
<td>Temporary Erosion and Sedimentation Controls Product Data</td>
<td>Informational</td>
<td>At least 20 days prior to Work associated with the products</td>
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<tr>
<td>1.4.B</td>
<td>Soil Stabilizer Manufacturer's Instructions</td>
<td>Informational</td>
<td>At least 20 days prior to Work associated with the products</td>
<td></td>
</tr>
<tr>
<td>1.4.C</td>
<td>Stormwater Pollution Prevention Plan</td>
<td>Action</td>
<td>The sooner of: 7 days prior to pre-construction conference or 30 days prior to scheduled mobilization</td>
<td></td>
</tr>
<tr>
<td>1.4.D</td>
<td>Inspection Reports</td>
<td>Informational</td>
<td>Within 7 days of each inspection</td>
<td></td>
</tr>
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</table>

SECTION 01 57 13 - Temporary Erosion and Sedimentation Controls

<table>
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<th>Section</th>
<th>Submittal</th>
<th>Additional Requirements/Information</th>
<th>Type of Submittal</th>
<th>Submission Timing/Associated Work Task</th>
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<tr>
<td>SECTION 02 72 00 - Water Treatment</td>
<td>1.5.A</td>
<td>Water Treatment Plan as a component of the Work Plan as required by Section X Standard Specifications: Section 01 33 00 - Submittal Procedures</td>
<td>See Section X Standard Specifications: Section 01 33 00 - Submittal Procedures</td>
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<td>1.5.B</td>
<td>Water Treatment System Operations and Maintenance Plan as a component of the Work Plan as required by Section X Standard Specifications: Section 01 33 00 - Submittal Procedures</td>
<td>See Section X Standard Specifications: Section 01 33 00 - Submittal Procedures</td>
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<td>1.5.C</td>
<td>Water Treatment System Winterization Plan as a component of the Work Plan as required by Section X Standard Specifications: Section 01 33 00 - Submittal Procedures</td>
<td>See Section X Standard Specifications: Section 01 33 00 - Submittal Procedures</td>
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<tr>
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<td>1.5.D</td>
<td>Water Treatment System Operations and Maintenance Plan as a component of the Work Plan as required by Section X Standard Specifications: Section 01 33 00 - Submittal Procedures</td>
<td>Informational</td>
<td>At least 20 days prior to Work associated with the products</td>
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<tr>
<td></td>
<td>1.5.E</td>
<td>Daily Reports</td>
<td>Informational</td>
<td>By 9:00 am the next working day after the day covered in the report</td>
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<td>1.5.F</td>
<td>Weekly Reports</td>
<td>Informational</td>
<td>On Monday for the preceding 7 days</td>
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SECTION 02 80 01 - Decontamination

<table>
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<th>Type of Submittal</th>
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<tr>
<td>1.5.A</td>
<td>Decontamination Plan as a component of the Work Plan as required by Section X Standard Specifications: Section 01 33 00 - Submittal Procedures</td>
<td>See Section X Standard Specifications: Section 01 33 00 - Submittal Procedures</td>
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<tr>
<td>1.5.B</td>
<td>Requests for approval to dispose of material as Hazardous Waste</td>
<td>Action</td>
<td>Obtain approval prior to shipping materials offsite</td>
<td></td>
</tr>
<tr>
<td>1.5.C</td>
<td>Shop drawings of Decontamination Pad</td>
<td>Action</td>
<td>At least 20 days prior to Work associated with the drawings</td>
<td></td>
</tr>
<tr>
<td>1.5.D</td>
<td>Decontamination Product Data</td>
<td>Informational</td>
<td>At least 20 days prior to Work associated with the products</td>
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</table>

SECTION 02 81 00 - Off-site Transportation and Disposal

<table>
<thead>
<tr>
<th>Section</th>
<th>Submittal</th>
<th>Additional Requirements/Information</th>
<th>Type of Submittal</th>
<th>Submission Timing/Associated Work Task</th>
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<tbody>
<tr>
<td>1.3.A</td>
<td>Transportation and Disposal Plan as a component of the Work Plan as required by Section X Standard Specifications: Section 01 34 00 - Submittal Procedures</td>
<td>See Section X Standard Specifications: Section 01 33 00 - Submittal Procedures</td>
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<tr>
<td>1.3.B</td>
<td>Copies of Waste Profiles</td>
<td>Informational</td>
<td>At least 3 days prior to shipment</td>
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<tr>
<td>1.3.C</td>
<td>Completed and signed Bill of Landings and Manifests</td>
<td>Informational</td>
<td>Within 3 days of shipment</td>
<td></td>
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<tr>
<td>1.3.D</td>
<td>Certified weight slips from receiving waste facility</td>
<td>Informational</td>
<td>Within 3 days of shipment</td>
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</tr>
<tr>
<td>1.3.E</td>
<td>Weekly transportation report</td>
<td>Informational</td>
<td>On Monday for the preceding 7 days</td>
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<tr>
<td>Section</td>
<td>Submittal</td>
<td>Additional Requirements/Information</td>
<td>Type of Submittal</td>
<td>Submission Timing/Associated Work Task</td>
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<tr>
<td>SECTION 13 50 00 - Slope Monitoring Instrumentation</td>
<td>1.3.A Slope Monitoring Plan as a standalone appendix of the Work Plan as required by Section X Standard Specifications: Section 01 33 00 - Submittal Procedures</td>
<td>See Section X Standard Specifications: Section 01 33 00 - Submittal Procedures</td>
<td>Action</td>
<td>At least 40 days prior to Work associated with the products</td>
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<tr>
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<td>1.3.B Product Data</td>
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<td>At least 40 days prior to Work associated with the products</td>
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<td></td>
<td>1.3.B Shop Drawings</td>
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<td>Action</td>
<td>At least 40 days prior to Work associated with the products</td>
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<tr>
<td></td>
<td>1.3.C Manufacturer’s Instructions (inclinometers)</td>
<td>Informational</td>
<td>At least 40 days prior to Work associated with the products</td>
<td></td>
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<tr>
<td></td>
<td>1.3.C Manufacturer’s Instructions (PVC primer and cement)</td>
<td>Informational</td>
<td>At least 40 days prior to Work associated with the products</td>
<td></td>
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<tr>
<td></td>
<td>1.3.C Inclinometer Manufacturer’s Warranty</td>
<td>Informational</td>
<td>At least 40 days prior to Work associated with the products</td>
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<tr>
<td></td>
<td>1.3.D Instructions and information to take over responsibility for the remote monitoring system</td>
<td>Closeout</td>
<td>With notification of Substantial Completion</td>
<td></td>
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<tr>
<td>SECTION 31 05 19 - Geotextiles</td>
<td>1.4.A Product Data</td>
<td></td>
<td>Action</td>
<td>At least 20 days prior to Work associated with the products</td>
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<td>1.4.A Shop Drawings</td>
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<td>Action</td>
<td>At least 20 days prior to Work associated with the products</td>
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<td>1.4.B Manufacturer’s Certificate</td>
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<td>1.4.B Warranty Information</td>
<td>Informational</td>
<td>At least 20 days prior to Work associated with the products</td>
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<tr>
<td>SECTION 31 05 20 - Geosynthetic Clay Liner</td>
<td>1.4.A Material Source</td>
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<td>Action</td>
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<td>1.4.A Shop Drawings</td>
<td></td>
<td>Action</td>
<td>At least 40 days prior to Work associated with the products</td>
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<td>1.4.B Samples</td>
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<td>Action</td>
<td>At least 10 days prior to Work associated with the products</td>
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<td>1.4.C Manufacturer’s Certificate</td>
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<td>At least 40 days prior to Work associated with the products</td>
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<td>1.4.C Manufacturer’s Instructions</td>
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<td>At least 40 days prior to Work associated with the products</td>
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<td>1.4.C Source Quality-Control Submittals</td>
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<td>At least 40 days prior to Work associated with the products</td>
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<td>1.4.C Field Quality-Control Submittals</td>
<td>Informational</td>
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<td>1.4.C Manufacturer’s Qualification Statement</td>
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<td>At least 40 days prior to Work associated with the products</td>
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<td>1.4.C Installer’s Qualification Statement</td>
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<td>At least 40 days prior to Work associated with the products</td>
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<tr>
<td></td>
<td>1.4.D Field Quality-Control Submittals: Testing and Inspection Results</td>
<td>Informational</td>
<td>Within 24 hours of inspection or CONTRACTOR receipt of results</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.4.E Certification of Acceptance of Subgrade</td>
<td>Informational</td>
<td>Each day prior to proceeding with GCL installation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.4.F Installation Report and as-built panel layout drawing</td>
<td>Closeout</td>
<td>Within 10 days of GCL installation completion</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.4.F Record Drawing of GCL Installation</td>
<td>Closeout</td>
<td>Within 20 days of GCL installation completion</td>
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</tr>
<tr>
<td>SECTION 31 05 21 - Geomembrane Barrier</td>
<td>1.4.A Product Data</td>
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<td>1.4.A Shop Drawings</td>
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</tr>
<tr>
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<td>1.4.B Samples</td>
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<td>Action</td>
<td>At least 10 days prior to Work associated with the products</td>
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<td>1.4.C Material Source</td>
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<td>At least 40 days prior to Work associated with the products</td>
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</tr>
<tr>
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<td>1.4.C Manufacturer’s Certificate</td>
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<td>1.4.C Manufacturer’s Instructions</td>
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<td>At least 40 days prior to Work associated with the products</td>
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<td>1.4.C Source Quality-Control Submittals</td>
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<td>1.4.C Field Quality-Control Submittals</td>
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<td>1.4.C Installer’s Qualification Statement</td>
<td>Informational</td>
<td>At least 40 days prior to Work associated with the products</td>
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<tr>
<td></td>
<td>1.4.D Copy of Manufacturer’s and Installer’s Warranty</td>
<td>Informational</td>
<td>At least 40 days prior to Work associated with the products</td>
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<td>1.4.D Test and Inspection Results</td>
<td>Informational</td>
<td>Within 24 hours of inspection or CONTRACTOR receipt of results</td>
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<tr>
<td></td>
<td>1.4.E Certification of Acceptance of Subgrade</td>
<td>Informational</td>
<td>Each day prior to proceeding with geomembrane installation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.4.F Installation Report and as-built panel layout drawing</td>
<td>Closeout</td>
<td>Within 10 days of geomembrane installation completion</td>
<td></td>
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<tr>
<td></td>
<td>1.4.F Record Drawing of Geomembrane Installation</td>
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<td>Within 20 days of geomembrane installation completion</td>
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<td>Section</td>
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<td>Additional Requirements/Information</td>
<td>Type of Submittal</td>
<td>Submission Timing/Associated Work Task</td>
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<td><strong>SECTION 31 05 22 - Geocomposites</strong></td>
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<td>Product Data</td>
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<td>Shop Drawings</td>
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<tr>
<td>1.4.B</td>
<td>Samples</td>
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<td>Manufacturer’s Certificate</td>
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<td>1.4.C</td>
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<td>1.4.C</td>
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<td>1.4.C</td>
<td>Installer’s Qualification Statement</td>
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<td>Informational</td>
<td>At least 40 days prior to Work associated with the products</td>
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<tr>
<td>1.4.D</td>
<td>Source Quality-Control Submittals</td>
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<td>Informational</td>
<td>Within 24 hours of inspection or CONTRACTOR receipt of results</td>
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<tr>
<td>1.4.D</td>
<td>Field Quality-Control Submittals</td>
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<td>Informational</td>
<td>Within 24 hours of inspection or CONTRACTOR receipt of results</td>
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<td>1.4.E</td>
<td>Installation Report and as-built panel layout drawing</td>
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<td>Closeout</td>
<td>Within 10 days of geomembrane installation completion</td>
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<tr>
<td>1.4.E</td>
<td>Record Drawing of Geocomposite Installation</td>
<td></td>
<td>Closeout</td>
<td>Within 20 days of geomembrane installation completion</td>
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</tbody>
</table>

**SECTION 31 11 00 - Clearing and Grubbing**

| 1.5.A | Clearing and Grubbing Plan as a component of the Work Plan as required by Section X Standard Specifications: Section 01 33 00 - Submittal Procedures | | Action | Obtain approval prior to shipping materials offsite |

**SECTION 31 23 16 - Excavation**

| 1.5.A | Excavation Work Plan as a component of the Work Plan as required by Section X Standard Specifications: Section 01 33 00 - Submittal Procedures | | Action | Within 10 days of completing excavation in an area and with each Application for Payment |
| 1.5.C | Approval requests to classify Debris as Unacceptable Debris | | Action | Obtain approval prior to shipping materials offsite |

**SECTION 31 23 19 - Excavation Dewatering**

| 1.5.A | Excavation Dewatering Plan as a component of the Work Plan as required by Section X Standard Specifications: Section 01 33 00 - Submittal Procedures | | Action | At least 20 days prior to Work associated with the products |
| 1.5.C | Manufacturer’s Certificate | | Action | At least 20 days prior to Work associated with the products |
| 1.5.D | Weekly Monitoring Reports | | Informational | On Monday for the preceding 7 days |

**SECTION 31 23 23 - Fill for Restoration**

| 1.4.A | Product Data | | Action | At least 20 days prior to Work associated with the products |
| 1.4.B | Material Source | | Informational | At least 20 days prior to Work associated with the products |
| 1.4.B | Manufacturer’s Certificate | | Informational | At least 20 days prior to Work associated with the products |
| 1.4.D | Preconstruction testing results | | Action | At least 5 days prior to product delivery to site |
| 1.4.D | Construction Testing Results (Compaction of Common Fill) | | Action | Within 24 hours of test completion |
| 1.4.E | Subgrade Survey | | Informational | Prior to performing backfilling activities in a discrete area |
| 1.4.E | Common Fill Survey | | Informational | Upon completion of Common Fill placement and prior to continuing backfill with other products |
| 1.4.E | Final Grades Survey | | Informational | Within 10 days of completion of backfilling activities |
| 1.4.E | Final Grades Survey performed at least 30 days after backfilling completion | | Informational | Within six weeks of completion of backfilling activities |

**SECTION 31 23 24 - Groundwater Underdrain**

<p>| 1.6.A | Product Data | | Action | At least 20 days prior to Work associated with the products |
| 1.6.B | Material Source | | Informational | At least 20 days prior to Work associated with the products |
| 1.6.B | Manufacturer’s Certificate | | Informational | At least 20 days prior to Work associated with the products |
| 1.6.D | Preconstruction testing results | | Action | At least 5 days prior to product delivery to site |
| 1.6.D | Subgrade Survey | | Informational | Prior to placement of geotextile or performing any backfill activities |
| 1.6.D | Final Grades Survey | | Informational | Upon completion of Underdrain Stone placement |</p>
<table>
<thead>
<tr>
<th>Section</th>
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<th>Type of Submittal</th>
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<tr>
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<tr>
<td>1.6.A</td>
<td>Product Data</td>
<td>Action</td>
<td>At least 20 days prior to Work associated with the products</td>
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<td>1.6.B</td>
<td>Material Source</td>
<td>Informational</td>
<td>At least 20 days prior to Work associated with the products</td>
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<td>1.6.B</td>
<td>Manufacturer’s Certificate</td>
<td>Informational</td>
<td>At least 20 days prior to Work associated with the products</td>
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<tr>
<td>1.6.C</td>
<td>Preconstruction testing results</td>
<td>Action</td>
<td>At least 5 days prior to product delivery to site</td>
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</tr>
<tr>
<td>1.6.D</td>
<td>Construction testing results</td>
<td>Action</td>
<td>Within 12 hours of receipt from geotechnical laboratory</td>
<td></td>
</tr>
<tr>
<td>1.6.E</td>
<td>Subgrade Survey</td>
<td>Informational</td>
<td>Prior to placement of geotextile or performing any backfill activities</td>
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</tr>
<tr>
<td>1.6.E</td>
<td>Final Grades Survey</td>
<td>Informational</td>
<td>Within 24 hours of completion of installation</td>
<td></td>
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<tr>
<td>1.6.F</td>
<td>Record Drawing</td>
<td>Closeout</td>
<td>Within 20 days of completion of installation</td>
<td></td>
</tr>
<tr>
<td><strong>SECTION 31 23 26 - Barrier Protection Layer</strong></td>
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<tr>
<td>1.5.A</td>
<td>Product Data</td>
<td>Action</td>
<td>At least 20 days prior to Work associated with the products</td>
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<tr>
<td>1.5.B</td>
<td>Material Source</td>
<td>Informational</td>
<td>At least 20 days prior to Work associated with the products</td>
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<tr>
<td>1.5.B</td>
<td>Manufacturer’s Certificate</td>
<td>Informational</td>
<td>At least 20 days prior to Work associated with the products</td>
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</tr>
<tr>
<td>1.5.C</td>
<td>Preconstruction testing results</td>
<td>Action</td>
<td>At least 5 days prior to product delivery to site</td>
<td></td>
</tr>
<tr>
<td>1.5.D</td>
<td>Construction testing results</td>
<td>Action</td>
<td>Within 12 hours of receipt from geotechnical laboratory</td>
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<tr>
<td>1.5.E</td>
<td>Subgrade Survey</td>
<td>Informational</td>
<td>Prior to performing any backfill activities</td>
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<tr>
<td>1.5.E</td>
<td>Final Grades Survey</td>
<td>Informational</td>
<td>Within 24 hours of completion of installation</td>
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<tr>
<td>1.5.F</td>
<td>Record Drawing</td>
<td>Closeout</td>
<td>Within 20 days of completion of installation</td>
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<tr>
<td><strong>SECTION 31 23 27 - Clean Soil Cap</strong></td>
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<tr>
<td>1.4.A</td>
<td>Product Data</td>
<td>Action</td>
<td>At least 20 days prior to Work associated with the products</td>
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<td>1.4.B</td>
<td>Material Source</td>
<td>Informational</td>
<td>At least 20 days prior to Work associated with the products</td>
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<td>1.4.B</td>
<td>Manufacturer’s Certificate</td>
<td>Informational</td>
<td>At least 20 days prior to Work associated with the products</td>
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<tr>
<td>1.4.C</td>
<td>Preconstruction testing results</td>
<td>Action</td>
<td>At least 5 days prior to product delivery to site</td>
<td></td>
</tr>
<tr>
<td>1.4.D</td>
<td>Construction Testing Results (Compaction of Common Fill)</td>
<td>Action</td>
<td>Within 24 hours of test completion</td>
<td></td>
</tr>
<tr>
<td>1.4.E</td>
<td>Subgrade Survey</td>
<td>Informational</td>
<td>Prior to performing backfilling activities in a discrete area</td>
<td></td>
</tr>
<tr>
<td>1.4.E</td>
<td>Final Grades Survey</td>
<td>Informational</td>
<td>Upon completion of Common Fill placement and prior to continuing backfill with other products</td>
<td></td>
</tr>
<tr>
<td>1.4.F</td>
<td>Record Drawing</td>
<td>Informational</td>
<td>Within 10 days of completion of backfilling activities</td>
<td></td>
</tr>
<tr>
<td><strong>SECTION 31 32 00 - Sediment Processing</strong></td>
<td></td>
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</tr>
<tr>
<td>1.5.A</td>
<td>Sediment Processing Plan as a component of the Work Plan as required by Section X Standard Specifications: Section 01 33 00 - Submittal Procedures</td>
<td>See Section X Standard Specifications: Section 01 33 00 - Submittal Procedures</td>
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<tr>
<td>1.5.A</td>
<td>Sediment Processing Equipment Operations and Maintenance Plan as a component of the Work Plan as required by Section X Standard Specifications: Section 01 33 00 - Submittal Procedures</td>
<td>See Section X Standard Specifications: Section 01 33 00 - Submittal Procedures</td>
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<tr>
<td>1.5.A</td>
<td>Sediment Processing System Winterization Plan as a component of the Work Plan as required by Section X Standard Specifications: Section 01 33 00 - Submittal Procedures</td>
<td>See Section X Standard Specifications: Section 01 33 00 - Submittal Procedures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.5.B</td>
<td>Product Data</td>
<td>Action</td>
<td>At least 20 days prior to Work associated with the products</td>
<td></td>
</tr>
<tr>
<td>1.5.B</td>
<td>Design Data</td>
<td>Action</td>
<td>At least 20 days prior to Work associated with the design</td>
<td></td>
</tr>
<tr>
<td>1.5.B</td>
<td>Manufacturer’s Certificate</td>
<td>Informational</td>
<td>At least 20 days prior to Work associated with the products</td>
<td></td>
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<tr>
<td>1.5.D</td>
<td>Testing Results</td>
<td>Action</td>
<td>Within 12 hours of test completion or receipt of results from laboratory</td>
<td></td>
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<tr>
<td>1.5.E</td>
<td>Daily Sediment Processing Reports</td>
<td>Informational</td>
<td>By 9:00 am the next working day after the day covered in the report</td>
<td></td>
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<tr>
<td>1.5.F</td>
<td>Subgrade Survey</td>
<td>Informational</td>
<td>Prior to Amended Fill Placement</td>
<td></td>
</tr>
<tr>
<td>1.5.F</td>
<td>Progress Survey</td>
<td>Informational</td>
<td>Monthly</td>
<td></td>
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<tr>
<td>1.5.F</td>
<td>Final Amended Fill Grades Survey</td>
<td>Informational</td>
<td>Within 10 days of completion of Amended Fill Placement</td>
<td></td>
</tr>
<tr>
<td>1.5.G</td>
<td>Record Drawing</td>
<td>Closeout</td>
<td>Within 20 days of completion of Amended Fill Placement</td>
<td></td>
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<tr>
<td><strong>SECTION 31 37 16 - Buttress</strong></td>
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<tr>
<td>1.6.A</td>
<td>Product Data</td>
<td>Action</td>
<td>At least 20 days prior to Work associated with the products</td>
<td></td>
</tr>
<tr>
<td>1.6.B</td>
<td>Material Source</td>
<td>Informational</td>
<td>At least 20 days prior to Work associated with the products</td>
<td></td>
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<td>Submission Timing/Associated Work Task</td>
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<tr>
<td>1.6.B.</td>
<td>Manufacturer's Certificate</td>
<td>Informational</td>
<td>At least 20 days prior to Work associated with the products</td>
<td></td>
</tr>
<tr>
<td>1.6.C.</td>
<td>Preconstruction testing results</td>
<td>Action</td>
<td>At least 5 days prior to product delivery to site</td>
<td></td>
</tr>
<tr>
<td>1.6.D.</td>
<td>Subgrade Survey</td>
<td>Informational</td>
<td>Prior to performing backfilling activities in a discrete area</td>
<td></td>
</tr>
<tr>
<td>1.6.D.</td>
<td>Final Grades Survey</td>
<td>Informational</td>
<td>Within 10 days of completion of backfilling activities</td>
<td></td>
</tr>
<tr>
<td>1.6.D.</td>
<td>Final Grades Survey performed at least 30 days after completion</td>
<td>Informational</td>
<td>Within six weeks of completion of backfilling activities</td>
<td></td>
</tr>
<tr>
<td>1.6.G.</td>
<td>Record Drawing</td>
<td>Closeout</td>
<td>Prior to substantial completion</td>
<td></td>
</tr>
</tbody>
</table>

### SECTION 31 12 16 - Asphalt Paving

| 1.3.A.1 | Asphalt product data | Action | At least 20 days prior to Work associated with the products |
| 1.3.A.2 | Mix design test results for air voids and density | Action | At least 20 days prior to Work associated with the design |
| 1.3.B. | Construction Testing Results (Field Quality Control) | Informational | Within 24 hours of test completion |

### SECTION 32 31 13 - Chain Link Fence and Gates

| 1.3.A. | Product Data | Action | At least 20 days prior to Work associated with the products |
| 1.3.B. | Shop Drawings | Action | At least 20 days prior to Work associated with the products |
| 1.4.B. | Material Source | Informational | At least 20 days prior to Work associated with the products |

### SECTION 32 72 01 - Pool Enhancement Features

| 1.3.A. | Product Data | Action | At least 20 days prior to Work associated with the products |
| 1.3.B. | Material Source | Informational | At least 20 days prior to Work associated with the products |

### SECTION 32 92 19 - Seeding

| 1.3.A. | Product Data | Action | At least 20 days prior to Work associated with the products |
| 1.3.B. | Material Source | Informational | At least 20 days prior to Work associated with the products |

### SECTION 32 93 00 - Landscape Plantings

| 1.3.A. | Product Data | Action | At least 20 days prior to Work associated with the products |
| 1.3.B. | Plant Suppliers | Informational | At least 20 days prior to Work associated with the products |

### SECTION 33 05 32 - Gas Vents

| 1.3.A. | Product Data | Action | At least 20 days prior to Work associated with the products |
| 1.3.B. | Manufacturer's Instructions | Informational | At least 20 days prior to Work associated with the products |

### SECTION 33 42 01 - Cap Appurtenances

| 1.4.A. | Preconstruction testing results | Action | Within 24 hours of test completion |

### SECTION 34 78 13 - Portable Truck Scales

| 1.4.A. | Product Data | Action | At least 20 days prior to Work associated with the products |
| 1.4.B. | Shop Drawings | Action | At least 20 days prior to Work associated with the products |

### SECTION 35 60 00 - Temporary Water Diversion and Flood Contingency Planning

| 1.4.A | Surface and Turbidity Control Plan as a standalone appendix of the Work Plan as required by Section X Standard Specifications: Section 01 33 00 - Submittal Procedures | See Section X Standard Specifications: Section 01 33 00 - Submittal Procedures |
| 1.4.B | Flood Contingency Plan as a standalone appendix of the Work Plan as required by Section X Standard Specifications: Section 01 33 00 - Submittal Procedures | See Section X Standard Specifications: Section 01 33 00 - Submittal Procedures |
| 1.4.C | Design Data - Surface Water Diversion Systems | Action | At least 20 days prior to Work associated with the products |
| 1.4.D | Design Data - Creek Monitoring Stations | Action | At least 20 days prior to Work associated with the products |
CONTRACTOR’S HEALTH AND SAFETY PLAN

PART 1 – GENERAL

1.1 DEFINITIONS

A. Project Site: The area designated on the Site Drawings, which includes the Contractor Work Area.
B. Contractor Work Area: An area of the project site including the Support Zone, access road, staging area, and Exclusion Zone.
C. Contractor Support Zone: An area of the Contractor Work Area outside the Exclusion Zone, accessible for deliveries and visitors. No persons, vehicles, or equipment may enter these areas from the Exclusion Zone without having gone through specific decontamination procedures in the adjacent Contamination Reduction Zone.
D. Staging Areas: Areas within the Exclusion Zone for the temporary staging of contaminated soil and debris.
E. Exclusion Zone: The innermost area within the Contractor Work Area that encloses the area of contamination. Protective clothing and breathing apparatus as specified in the health and safety requirements and in the CONTRACTOR’s approved HASP must be worn.
F. Contamination Reduction Zone: An area at the Exit Point of the Exclusion Zone through which all personnel, vehicles, and equipment must enter and exit. All decontamination of vehicles and equipment and removal of personal protective clothing and breathing apparatus must take place at the boundary between the Exclusion Zone and the Contamination Reduction Zone.

1.2 DESCRIPTION

A. Scope:
1. CONTRACTOR shall prepare and maintain a written, Site-specific, health and safety plan (SSHASP), and conduct all construction activities in a safe manner that avoids:
   a. injuries to employees, Subcontractors, and other persons with an interest at or near the Site;
   b. employee exposures to health hazards above occupational limits established by Laws or Regulations, American Conference of Governmental Industrial Hygienists (ACGIH), and Nuclear Regulatory Commission (NRC), as applicable;
   c. exposure of the public and DEPARTMENT’s employees to air contaminants above levels established for public exposure by the USEPA, NRC, and by other authorities having jurisdiction at the Site;
   d. significant increases in concentrations of contaminants in soil, water, or sediment near the Site; or
   e. violations of OSHA Regulations, or other Laws or Regulations.
2. The CONTRACTOR is solely responsible and liable for the health and safety of all on-site personnel and any off-site community potentially impacted by the remediation.
3. This section describes the minimum health and safety requirements for this project including the requirements for the development of a written SSHASP. All on-site workers must comply with the requirements of the SSHASP. The CONTRACTOR’s SSHASP must comply with all applicable federal and state regulations protecting human health and the environment from the hazards posed by activities during this site remediation. The SSHASP is a required deliverable for this project. The SSHASP will be reviewed by the ENGINEER. The CONTRACTOR will resubmit the SSHASP, addressing all review comments from the ENGINEER. The CONTRACTOR shall not initiate on-site work in contaminated areas until an acceptable SSHASP addressing all comments has been developed.

4. Consistent disregard for the provision of these health and safety specifications shall be deemed just and sufficient cause for immediate stoppage of work and/or termination of the Contract or any Subcontract without compromise or prejudice to the rights of the DEPARTMENT or the ENGINEER.

5. The safety and health of the public and project personnel and the protection of the environment will take precedence over cost and schedule considerations for all project work. Any additional costs will be considered only after the cause for suspension of operations is addressed and work is resumed. The ENGINEER's on-site representative and the CONTRACTOR's Superintendent will be kept appraised, by the Safety Officer, of conditions which may adversely affect the safety and health of project personnel and the community. The ENGINEER may stop work for health and safety reasons. If work is suspended for health and/or safety reasons, it shall not resume until approval is obtained from the ENGINEER. The cost of work stoppage due to health and safety is the responsibility of the CONTRACTOR under this Contract.

B. Related Sections:


1.3 QUALITY ASSURANCE

A. Qualifications:

1. Preparer of SSHASP:
   a. Engage a Certified Industrial Hygienist (CIH), accredited by the American Board of Industrial Hygiene, or Certified Safety Professional certified by the Board of Certified Safety Professionals, to prepare or supervise preparation of SSHASP. The CIH must have a minimum of two years of experience in hazardous waste site remediations or related industries and have a working knowledge of federal and state occupational health and safety regulations.
   b. SSHASP preparer shall be thoroughly familiar with: (i) Laws and Regulations and industry standards of safety and protection relating to health and safety pertaining to the Work; (ii) the requirements of the Contract Documents relative to health, safety, and protection; (iii) health and safety hazards associated with the Work and appropriate protections therefor; and (iv) CONTRACTOR’s and DEPARTMENT’s safety programs.
c. SSHASP preparer shall have previously prepared site-specific health and safety plans for not less than five construction projects similar in nature, scope, and complexity to the Work.
d. Submit preparer’s qualifications with SSHASP.

2. Safety Officer:
   a. The designated Safety Officer (SO) must have, at a minimum, two years of experience in the remediation of hazardous waste sites or related field experience. The SO must have formal training in health and safety and be conversant with federal and state regulations governing occupational health and safety. The SO must be certified in CPR and first aid and have experience and training in the implementation of personal protection and air monitoring programs. The SO must have "hands-on" experience with the operation and maintenance of real-time air monitoring equipment. The SO must be thoroughly knowledgeable of the operation and maintenance of air-purifying respirators (APR) and supplied-air respirators (SAR) including SCBA and airline respirators.

3. Health and Safety Technicians:
   a. The Health and Safety Technician (HST) must have one year of hazardous waste site or related experience and be knowledgeable of applicable occupational health and safety regulations. The HST must be certified in CPR and first aid. The HST will be under direct supervision of the SO during on-site work. The HST must be familiar with the operations, maintenance and calibration of monitoring equipment used in this remediation. An HST will be assigned to each work crew or task in potentially hazardous areas.

B. Regulatory Requirements: Laws and Regulations applying to the Work under this Section include, but are not limited to:
1. 29 CFR 1904 (OSHA), Recording and Reporting Occupational Injuries and Illnesses.
2. 29 CFR 1910 (OSHA), Occupational Safety and Health Standards.
3. 29 CFR 1926 (OSHA), Safety and Health Regulations for Construction.
4. 49 CFR 171.8, Transportation, Definitions and Abbreviations.

1.4 SUBMITTALS

A. Informational Submittals: Submit the following:
1. CONTRACTOR’s SSHASP, in accordance with this Section. At a minimum, the following iterations of the SSHASP are required:
   a. Preliminary SSHASP
      1) Part of the five-day submittal package required by Section III Bidding Information and Requirements: Article 5 and Section X Standard Specifications: Section 01 33 00 – Submittal Procedures
      2) Submit within 5 days following the Notice of Apparent Low Bidder
      3) Include qualifications of SSHASP preparer in the SSHASP, including copies of valid, applicable certifications
   b. Draft SSHASP
1) Submitted the sooner of seven days prior to the pre-construction conference, or 30 days prior to CONTRACTOR’s schedule mobilization to the Site.

2) Updated to address comments received from the DEPARTMENT and ENGINEER on the Preliminary SSHASP.

3) Shall include all required elements as identified in this Section.

c. **Final SSHASP**

1) Submitted prior to start of Work at the Site.

2) Updated to address comments received from the DEPARTMENT and ENGINEER on the Draft SSHASP.

d. **Additional iterations and/or updated SSHASPs as requested by the ENGINEER or as necessary following an accident, violation, or changed condition.**

e. **See the following sections for additional requirements and information applicable to all iterations of the SSHASP:**

1) Section III Bidding Information and Requirements: Articles 5 and 10

2) Section VIII General Conditions: Articles 5.20 to 5.23

4) Section X Standard Specifications: Section 01 33 00 – Submittal Procedures

5) Section X Standard Specifications: Section 01 35 33 – COVID-19 Risk Management

6) Section X Standard Specifications: Section 01 35 43.13 – Environmental Procedures for Hazardous Materials

7) Section X Standard Specifications: Section 01 76 50 – Nuisance Controls, Management, and Corrective Measures

8) Section XI Supplementary Specifications: Section 01 10 00 – Summary

2. **Job safety analyses (JSA) submittals for each action required for the Work that is not covered in CONTRACTOR’s SSHASP. Submit JSAs at least 30 days prior to Work associated with the JSA, or as soon as possible to prevent delays.**

3. **Reports:**

   a. Accident reports within 24 hours of the accident

   b. Monthly Summary of Accident Reports by the 10th day of each month for the prior month

   c. Any accident, health, or safety hazard reports or violations received from OSHA or other authorities having jurisdiction within 24 hours of CONTRACTOR’s receipt

   d. Daily Health and Safety Field Reports within 7 days of each day in which Work was performed, including requirements from Section X Standard Specifications: Section 01 35 33 – COVID-19 Risk Management

**1.5 SSHASP AND JSA SUBMITTALS**

**A. Timing of Submittals:**

1. Submit the complete Draft SSHASP the sooner of: seven days prior to pre-construction conference, or 30 days prior to CONTRACTOR’s scheduled mobilization at the Site.
2. Do not perform Work at the Site until written SSHASP has been accepted by ENGINEER.

3. When an element of the Work or work activity is not covered by the SSHASP, prepare and submit a JSA and obtain ENGINEER’s acceptance of JSA before performing the work activity or activities covered by such JSA.

4. Delays in the Work Associated with Submittal or Review of SSHASP and JSAs:
   a. Notwithstanding other provisions of the Contract Documents, changes in the Contract Price or Contract Times will not be authorized due to delay by CONTRACTOR in developing, submitting, revising, or obtaining acceptance of the SSHASP.

B. Limitations of ENGINEER’s Review of SSHASP and JSAs:
   1. ENGINEER’s review and acceptance of SSHASP and JSAs (if any) will be only to determine if the topics covered in SSHASP comply with the Contract Documents and specific requirements of safety documents referenced therein (such as DEPARTMENT’s safety programs, if any).
   2. ENGINEER’s review and acceptance will not extend to safety measures, means, methods, techniques, procedures of construction, or whether representations made in the SSHASP and JSAs (if any) comply with Laws and Regulations, or standards of good practice.
   3. CONTRACTOR’s responsibility for safety and protection at the Site shall be as indicated in the Contract Documents. Nothing associated with ENGINEER’s review or acceptance of SSHASP or JSAs will create or imply any obligation by ENGINEER to oversee or become, in any way, responsible for CONTRACTOR’s safety obligations under the Contract Documents.

1.6 CONTRACTOR’S HEALTH AND SAFETY PROGRAM

A. General:
   1. Known prior use(s) of the Site are indicated.
   2. The Site is classified as hazardous waste site. Presence of Constituents of Concern (if any), where known to DEPARTMENT and ENGINEER, are indicated in the reports and drawings (if any) of such Hazardous Environmental Conditions listed in the Supplementary Conditions and/or Limited Site Data.
   3. Each employer working at the Site shall develop and implement a written SSHASP for their employees and other individuals for whom such employer is responsible.
   4. When applicable (including when the Site includes one or more Hazardous Environmental Conditions), SSHASP shall comply with 29 CFR 1904, 29 CFR 1910, 29 CFR 1926, and other Laws and Regulations.
   5. Include in the SSHASP requirements for complying with DEPARTMENT’s Site-specific hazard/emergency response plans, if any. During the Project, comply with DEPARTMENT’s hazard/emergency response plans.
   6. The SSHASP is a deliverable product of this project. The ENGINEER will review and comment on the CONTRACTOR's SSHASP. Agreed upon responses to all comments will be incorporated into the final copy of the SSHASP. The SSHASP shall govern all
work performed for this contract. The HASP shall address, at a minimum, the items in accordance with 29 CFR 1910.120(I)(2).

B. Location:
1. Retain at the Site a copy of complete SSHASP, JSAs (if any), and related information.
2. Retain copy of SSHASP, JSAs (if any), and related information at CONTRACTOR’s project office.
3. Throughout the Project, update as necessary all copies of SSHASP, JSAs, and related information.
4. Copies of SSHASP, JSAs, and other related information shall be made available to CONTRACTOR’s employees, Subcontractors, Suppliers, DEPARTMENT, and ENGINEER immediately upon request.

C. SSHASP Content: SSHASP shall address and include the following:
1. Address safety and health hazards of each phase of operations at the Site and shall include requirements and procedures for employee protection.
2. CONTRACTOR’s organizational structure and other information required by Paragraph 1.6.D of this Section.
3. Comprehensive work plan.
4. Job safety and health risk or hazard analysis for each task and operation found in the work plan.
5. Employee training assignments including copies of OSHA 40-hour, 24-hour supervised field activities, eight-hour supervisors, and eight-hour refresher training certificates for each CONTRACTOR and Subcontractor employee assigned to the Project.
6. Personal protective equipment (PPE) to be used by employees for each task and activity performed. Include respirator fit test certificates for CONTRACTOR and Subcontractor employees assigned to the Project.
7. Medical Surveillance Requirements: Medical clearance certificates for all CONTRACTOR and Subcontractor employees assigned to the Project. The physical examination shall also include but not be limited to the following minimum requirements:
   a. Complete blood profile;
   b. Blood chemistry to include: chloride, CO2, potassium, sodium, BUN, glucose, globulin, total protein, albumin, calcium, cholesterol, alkaline phosphatase, triglycerides, uric acid, creatinine, total bilirubin, phosphorous, lactic dehydrogenase, SGPT, SGOT;
   c. Urine analysis;
   d. "Hands on" physical examination to include a complete evaluation of all organ systems including any follow-up appointments deemed necessary in the clinical judgement of the examining physician to monitor any chronic conditions or abnormalities;
   e. Electrocardiogram;
   f. Chest X-ray (if recommended by examining physician in accordance with good medical practice);
   g. Pulmonary function;
h. Audiometry - To be performed by a certified technician, audiologist, or physician. The range of 500 to 8,000 hertz should be assessed.

i. Vision screening - Use a battery (TITMUS) instrument to screen the individual's ability to see test targets well at 13 to 16 inches and at 20 feet. Tests should include an assessment of muscle balance, eye coordination, depth perception, peripheral vision, color discrimination, and tonometry.

j. Tetanus booster shot (if no inoculation has been received within the last five years); and

k. Complete medical history.

8. Frequency and types of air monitoring, personnel monitoring, and environmental sampling techniques and instrumentation to be used, including methods of maintenance and calibration of monitoring and sampling equipment.

9. Site control measures, including procedures for:
   a. preventing trespassing;
   b. preventing unqualified or unprotected workers from entering restricted areas;
   c. preventing “tracking” of contaminants out of the Site;
   d. maintaining log of employees at the Site and visitors to the Site;
   e. communicating routes of escape and gathering points.
   f. ensuring safe handling of Constituents of Concern during the Work, including excavating, handling, loading, and transporting activities. Include procedures for ensuring safety when working in or proximity to Hazardous Environmental Conditions,
   g. delineating “hot” (e.g., contaminated), “cold”, and support zones;
   h. locating personnel and equipment decontamination zones; and
   i. decontamination.
   j. first aid facilities including fully equipped first air station and routine replenishment of supplies.
   k. sanitary facilities including potable drinking water, washing facilities and portable toilets.
   l. The CONTRACTOR shall be responsible for maintaining a log of security incidents and visitor access granted.
   m. The CONTRACTOR shall require all personnel having access to the project site to sign-in and sign-out and shall keep a record of all site access.
   n. All approved visitors to the site shall be briefed by the SO on safety and security, provided with temporary identification and safety equipment, and escorted throughout their visit.
   o. Site visitors shall not be permitted to enter the hazardous work zone unless approved by the DEPARTMENT.
   p. Project sites shall be posted, "Warning Hazardous Work Area, Do Not Enter Unless Authorized," and access restricted by the use of a snow fence or equal at a minimum. Warning signs shall be posted at a minimum of every 500 feet.

10. Plan for safe and effective responses to emergencies, including necessary PPE and other equipment.

11. Community Protection Plan consisting of the following:
a. Develop, as part of this SSHASP, a Community Protection Plan (CPP). The CPP shall outline those steps to be implemented to protect the health and safety of surrounding human population and the environment.

b. Air Monitoring consisting of the following:
   1. As part of the Air Monitoring Program, use real-time monitoring and documentation sampling as described in the Subpart “Air Monitoring Program” of this section to determine if off-site emission, as a result of site work, poses a threat to the surrounding community.
   2. Provide real-time air monitoring for volatile compounds and particulate levels as the perimeter of the work area as necessary. Include the following:
      a.) Volatile organic compounds must be monitored at the downwind perimeter of the work area on a continuous basis. If total organic vapor levels exceed 5 ppm above background, work activities shall be halted and monitoring continued under the provisions of a Vapor Emission Response Plan. All readings shall be recorded and be available for State (DEC & DOH) personnel to review.
      b). Particulates shall be continuously monitored at the 4 documentation sampling stations for a total of 4 dust monitors. If the downwind particulate level is 150 ug/m3 greater than the upwind particulate level, dust suppression techniques shall be employed. All readings shall be recorded and be available for State (DEC & DOH) personnel to review.

c. Vapor Emission Response Plan consisting of the following:
   1. If the ambient air concentration of organic vapors exceeds 5 ppm above background at the perimeter of the work area, activities shall be halted and monitoring continued. If the organic vapor level decreases below 5 ppm above background, work activities may resume. If the organic vapor levels are greater than 5 ppm over background but less than 225 ppm over background at the perimeter of the work area, activities may resume provided the organic vapor level 200 feet downwind of the work area or half the distance to the nearest residential or commercial structure, whichever is less, is below 5 ppm over background.
   2. If the organic vapor level is above 25 ppm at the perimeter of the work area, activities shall be shutdown. When work shutdown occurs, downwind air monitoring as directed by the SO shall be implemented to ensure that vapor emission does not impact the nearest residential or commercial structure at levels exceeding those specified in the Major Vapor Emission section.

d. Major Vapor Emission consisting of the following:
   1. If any organic levels greater than 5 ppm over background are identified 200 feet downwind from the work area or half the distance to the nearest residential or commercial property, whichever is less, all work activities shall be halted.
   2. If, following the cessation of the work activities, or as the result of an emergency, organic levels persist above 5 ppm above background 200 feet downwind or half the distance to the nearest residential or commercial property from the work area, the air quality shall be monitored within 20
feet of the perimeter of the nearest residential or commercial structure (20 Foot Zone).

3. If efforts to abate the emission source are unsuccessful and if organic vapor levels are approaching 5 ppm above background and persist for more than 30 minutes in the 20 Foot Zone, the Major Vapor Emission Response Plan shall automatically be placed into effect.

4. However, the Major Vapor Emission Response Plan shall be immediately placed into effect if organic vapor levels are greater than 10 ppm above background levels.

e. Major Vapor Emission Response Plan consisting of the following:
   1. Upon activation, the following shall be undertaken:
      a) All Emergency Response Contracts as listed in the Subpart titled
         “Emergency Response and Contingency Plan” paragraph titled
         “Telephone List.”
      b) The local police authorities shall immediately be contacted by the SO
         and advised of the situation. Coordinate with local officials to arrange
         for notification and evacuation of the surrounding community.
      c) Frequent air monitoring shall be conducted at 30 minutes intervals
         within the 20 Foot Zone. If two successive readings below action levels
         are measured, air monitoring may be halted or modified by the SO.

2. The Air Monitoring Program shall include real-time air monitoring and shall
   be conducted at the perimeter of the site. Particulates should be continuously
   monitored upwind, downwind and within the Exclusion Zone at temporary
   particulate monitoring stations. If the downwind particulate level is more
   than 2.5 times greater than the upwind particulate level and greater than 150
   ug/m3, then dust suppression techniques shall be employed. This is a
   general action level. A site-specific action level shall be developed based on
   available analytical data. All readings shall be recorded and be available for
   ENGINEER, DEPARTMENT, and NYSDOH personnel to review.

3. Coordinate with local officials to arrange for notification and evacuation of
   the surrounding community in the event that off-site emissions pose a threat.

f. Odor control consisting of the following:
   1. Foam active work areas to reduce odors if odor complaints are received from
      nearby residences during site activities. Odor masking agents or other odor
      control methods may be used subject to ENGINEER’s review. Continue odor
      suppression during each day that odor complaints are received.

g. Off-Site Spill Response consisting of the following:
   1. Produce as part of the SSHASP a Spill Response Plan, also coordinated with
      local officials, in case of an off-site spill of either liquid or solid wastes. The
      plan shall include transportation routes and times, as well as the minimum
      requirements set forth in the Subpart titled “On-Site Spill Containment Plan.”
      The driver shall be supplied with Material Safety Data Sheets (MSDSs), a
      24-hour emergency phone number, and instructions for reporting
      emergencies to local agencies and the project site.

12. Spill containment program. Comply with Section X Standard Specifications: Section
    01 35 43.13, Environmental Procedures for Hazardous Materials.
13. Requirements for complying with Section X Standard Specifications: Section 01 35 43.13 – Environmental Procedures for Hazardous Materials and Section 01 76 50 – Nuisance Controls, Management, and Corrective Measures.

D. CONTRACTOR’s Organizational Structure:
   1. Organizational structure portion of the SSHASP shall refer to or incorporate information on specific chain of command and specify the overall responsibilities of supervisors and employees, and shall include the following:
      a. Name and contact information for CONTRACTOR’s “competent person(s)” for various work-related activities.
      b. Name and contact information for CONTRACTOR’s safety representative.
      c. Designation of general supervisor who has responsibility and authority to direct operations involving handling of Constituents of Concern and work in or near Hazardous Environmental Conditions.
      d. Other personnel required for operations involving Constituents of Concern and Hazardous Environmental Conditions and emergency response, and general functions and responsibilities of each.
      e. Lines of authority, responsibility, and communication.
   2. Review and update organizational structure as necessary to reflect current status of work activities on the Project and status of personnel.

E. Work Plan:
   1. Comprehensive work plan portion of SSHASP shall refer to or incorporate information on the following:
      a. Tasks and objectives of work activities, onsite operations, and logistics and resources necessary to achieve such tasks and objectives.
      b. Anticipated activities and CONTRACTOR’s normal operating procedures.
      c. Personnel and equipment requirements for implementing the work plan.

1.7 ACCIDENT REPORTING AND INVESTIGATION

A. Comply with 29 CFR 1904.29, including using OSHA Forms 300, 300A, and 301 (or equivalent) to document all accidents that result in bodily injury.

B. Accident Report Submittals:
   1. Submit copies of completed accident reports to DEPARTMENT and ENGINEER within 24 hours of the accident.
   2. By the tenth day of each month, submit monthly summary of accident reports from the prior month. Monthly summary report shall indicate for each accident the root cause and descriptions of corrective actions to reduce the probability of similar accidents.
   3. Submit to DEPARTMENT and ENGINEER a copy of all accident and health or safety hazard reports or violations received from OSHA or other authority having jurisdiction within 24 hours of CONTRACTOR’s receipt.

C. Based upon results of accident investigation, modify the SSHASP as required by changing tasks or procedures to prevent reoccurrence of accident.
D. Post current copy of CONTRACTOR’s OSHA 300A report, Summary of Work-related Injuries and Illnesses, at conspicuous place at the Site during period of February 1 through April 30 of each year.

1.8 DAILY HEALTH AND SAFETY FIELD REPORTS

A. Submit to DEPARTMENT and ENGINEER daily health and safety field reports.

B. Content of CONTRACTOR’s Daily Health and Safety Field Reports: Reports shall include, but not necessarily be limited to, the following:
   1. Weather conditions.
   2. Delays encountered in construction
   3. Acknowledgment of deficiencies noted along with corrective actions taken on current and previous deficiencies.
   4. Daily health and safety air monitoring results (when air monitoring is performed).
   5. Documentation of instrument calibrations performed.
   7. PPE utilized.
   8. Description of problems, real or anticipated, encountered during the Work that should be brought to attention of DEPARTMENT and ENGINEER and notification of deviations from planned Work shown in previously submitted daily health and safety field report(s).

1.9 WORK AREAS

A. The CONTRACTOR will clearly lay out and identify work areas in the field and will limit equipment, operations and personnel in the areas as defined below:
   1. Exclusion Zone (EZ) – This will include all areas where potential environmental monitoring has shown, or it is suspected that a potential hazard may exist to workers. The level of PPE required in these areas will be determined by the SO after air monitoring and on-site inspection has been conducted. The area will be clearly delineated from the decontamination area. As work within the hazardous zone proceeds, the delineating boundary will be relocated as necessary to prevent the accidental contamination of nearby people and equipment. The Exclusion Zone will be delineated by fencing (e.g., chain link, snow fencing, or orange plastic fencing).
   2. Contamination Reduction Zone – This zone will occur at the interface of "Hazardous" and "Clean" areas and will provide for the transfer of equipment and materials from the Support Zone to the Exclusion Zone, the decontamination of personnel and clothing prior to entering the "Clean" area, and for the physical segregation of the "Clean" and "Hazardous" areas. This area will contain all required emergency equipment, etc. This area will be clearly delineated by fencing (e.g., chain link, snow fencing, or orange plastic fencing). It shall also delineate an area that although not contaminated at a particular time may become so at a later date.

C. Support Zone – This area is the remainder of the work site and project site. The Support Zone will be clearly delineated, and procedures implemented to prevent active or passive contamination from the work site. The function of the Support Zone includes:
1. An entry area for personnel, material and equipment to the Exclusion Zone of site operations through the Contamination Reduction Zone
2. An exit for decontamination personnel, materials and equipment from the "Decontamination" area of site operations
3. The housing of site special services; and
4. A storage area for clean, safety, and work equipment.

D. Decontamination Station - The CONTRACTOR shall construct a decontamination station as shown on the Contract Drawings. The decontamination station shall be located in the Contamination Reduction Zone and shall be used to clean all vehicles leaving the Exclusion Zone prior to entering the Support Zone or leaving the site.

1.10 STANDARD OPERATING PROCEEDURES

A. The following are Standard Operating Procedures (SOPs) that should be employed as part of the H&S program:
1. During periods of prolonged respirator usage in contaminated areas, respirator filters will be changed upon breakthrough. Respirator filters will always be changed daily.
2. All respirators will be individually assigned and not interchanged between workers without cleaning and sanitizing.
3. CONTRACTOR, subcontractor and service personnel unable to pass a fit test as a result of facial hair or facial configuration shall not enter or work in an area that requires respiratory protection.
4. Footwear used on site will be covered by rubber overboots or booties when entering or working in the Exclusion Zone area or Contamination Reduction Zone. Boots or booties will be washed with water and detergents to remove dirt and contaminated sediment before leaving the Exclusion Zone or Contamination Reduction Zone.
5. The CONTRACTOR will ensure that all project personnel shall have vision or corrected vision to at least 20/40 in one eye.
6. Eating, drinking, chewing gum or tobacco, smoking, etc., will be prohibited in the hazardous work zones and neutral zones.
7. No alcohol, firearms or drugs (without prescriptions) will be allowed on site at any time.
8. All personnel who are on medication should report it to the SO who will make a determination whether or not the individual will be allowed to work and in what capacity. The SO may require a letter from the individual's personal physician stating what limitations (if any) the medication may impose on the individual.
9. The CONTRACTOR shall provide all equipment and personnel necessary to monitor and control air emissions. The determination of the proper level of protection for each task and safety equipment shall be the responsibility of the CONTRACTOR. These task specific levels of protection shall be stated in the CONTRACTOR's SSHASP.
10. The CONTRACTOR shall provide a hygiene facility on site. The hygiene facility shall include the following:
    a. Adequate lighting and heat;
b. Shower facilities for project personnel;
c. Laundry facilities for washing work clothes and towels;
d. Areas for changing into and out of work clothing. Work clothing should be stored separately from street clothing;
e. Clean and "dirty" locker facilities; and
f. Storage area for work clothing, etc.

11. The CONTRACTOR shall provide a portable decontamination station, commonly referred to as a "Boot Wash" facility for each hazardous work zone requiring decontamination for project personnel. These facilities shall be constructed to contain spent wash water, contain a reservoir of clean wash water, a power supply to operate a pump for the wash water, a separate entrance and exit to the decontamination platform, with the equipment being mobile, allowing easy transport from one hazardous work zone to the next. All such wash water shall be disposed of at the dewatering facility. An appropriate detergent such as trisodium phosphate shall be used.

12. The CONTRACTOR shall provide full decontamination facilities at all hazardous zones. Decontamination facilities must be described in detail in the SSHASP.

13. Contaminated clothing, used respirator cartridges, and other disposable items will be put into drums/containers for transport and proper disposal in accordance with TSCA and RCRA requirements.

14. All equipment and material used in this project shall be thoroughly washed down in accordance with established federal and state procedures before it is removed from the project. With the exception of the excavated materials, all other contaminated debris, clothing, etc. that cannot be decontaminated shall be disposed at the CONTRACTOR's expense by a method permitted by appropriate regulatory agencies. The cost for this element of work shall be incorporated in the lump sum bid for mobilization/demobilization the unit prices bid for disposal of decontamination liquids or as otherwise directed on this project. All vehicles and equipment used in the "Dirty Area" will be decontaminated to the satisfaction of the SO in the decontamination area on site prior to leaving the project. The CONTRACTOR will certify, in writing, that each piece of equipment has been decontaminated prior to removal from the site.

15. Decontamination shall take place within the designated equipment and material decontamination area. The decontamination shall consist of degreasing (if required), followed by high-pressure washing, supplemented by detergents as appropriate. Wash units shall be portable, high-pressure with a self-contained water storage tank and pressurizing system (as required).

16. The CONTRACTOR shall develop, as part of the SSHASP, an air monitoring program (AMP). The purpose of the AMP is to determine that the proper level of personnel protective equipment is used, to document that the level of worker protection is adequate, and to assess the migration of contaminants to off-site receptors as a result of site work.

17. The CONTRACTOR shall supply all personnel, equipment, facilities, and supplies to develop and implement the air monitoring program described in this section. Equipment shall include at a minimum real-time aerosol monitors, depending on work activities and environmental conditions.
18. The CONTRACTOR's AMP shall include both real-time and documentation air monitoring (personal and area sampling as needed). The purpose of real-time monitoring will be to determine if an upgrade (or downgrade) of PPE is required while performing on-site work and to implement engineering controls, protocols, or emergency procedures if CONTRACTOR-established action levels are encountered.

19. The CONTRACTOR shall also use documentation monitoring to ensure that adequate PPE is being used and to determine if engineering controls are mitigating the migration of contamination to off-site receptors. Documentation monitoring shall include the collection and analysis of samples for total nuisance dust.

20. Real-time monitoring shall be conducted using the following equipment:
   a. Organic vapor photoionizers shall be Photovac TIP, total organic vapor analyzer as manufactured by Photovac International, 739B Park Avenue, Huntington, New York 11743 or equal. The CONTRACTOR shall provide one Photovac TIP for each and every hazardous work zone operation.
   b. Particulate monitoring must be performed using real-time particulate monitors (MiniRam Model MIEPDM-3, or equal) and shall monitor particulate matter in the range of 0-10 microns diameter (PM10) with the following minimum performance standards:

   Object to be measured: Dust, Mists, Aerosols

   Measurement Ranges: 0.001 to 400 mg/m3 (1 to 400,000 μg/m3)

   Precision (2-sigma) at constant temperature: +/- 10 μg/m3 for one second averaging; +/- 1.5 μg/m3 for sixty second averaging

   Accuracy: +/- 5% of reading +/- precision (Referred to gravimetric calibration with SAE fine test dust (mmd= 2 to 3 μm, g= 2.5, as aerosolized)

   Resolution: 0.1% of reading or 1 μg/m3, whichever is larger

   Particle Size Range of Maximum Response: 0.1-10 μ

   Total Number of Data Points in Memory: 10,000

   Logged Data: Each Data Point: average concentration, time/date, and data point number Run Summary: overall average, maximum concentrations, time/date of maximum, total number of logged points, start time/date, total elapsed time (run duration), STEL concentration and time/date occurrence, averaging (logging) period, calibration factor, and tag number.
Alarm Averaging Time (user selectable): real-time (1-60 seconds) or STEL (15 minutes)

Operating Time: 48 hours (fully charged NiMH battery); continuously with charger

Operating Temperature: -10 to 50°C (14 to 122°F)

Automatic alarms are suggested.

c. Particulate levels will be monitored and integrated over a period not to exceed 15 minutes. Consequently, instrumentation shall require necessary averaging hardware to accomplish this task. A monitor such as the personal DataRAM, manufactured by Monitoring Instruments for the Environment, Inc., or equivalent, can be used as a real time particulate screening tool. Although the instrument’s design does not allow it to make a sharp differentiation of particulates at the PM10 standard, the instrument could be used in the passive mode without a pump to provide readings in the 0.1 to 10μ range in the immediate vicinity of construction activities.

d. Monitor the air, using the same equipment, for 10-15 minutes upwind of the work site to establish background level. The background level shall be established before the start of each shift every day. In the event that downwind particulates are detected at levels in excess of 150 ug/m³ or 2.5 times the established background level at the work site, re-measure the background concentrations upwind of the work zone using the same equipment. If the measured particulate level at the work zone is 100 ug/m³ above background, monitor the downwind site perimeter and implement additional dust controls in the work zone. Continue to take hourly measurements of the upwind background concentrations and compare such concentrations with the particulate level at the work zone, until the downwind level at the work zone is less than 100 ug/m³ above the upwind level. If at any time the measured particulate level at the work zone is more than 150 ug/m³ over background concentration, the CONTRACTOR shall immediately suspend work at the site, promptly notify the Safety Officer, and implement suitable corrective action or engineering controls before work resumes.

e. Real-time monitoring will be conducted at any excavation of contaminated soil or sediments. Real-time monitoring will also be conducted at perimeter locations including an upwind (background) and three downwind locations. A background reading will be established daily at the beginning of the work shift. If the wind direction changes during the course of the day, a new background reading will be made. Downwind readings at the perimeter will be made when CONTRACTOR action levels have been exceeded at the excavation face or at a minimum of twice a day.
f. If action levels are exceeded at the perimeter location for fugitive dust, work must be suspended and engineering controls must be implemented to bring concentrations back down to acceptable levels.

g. Construction activities generate dust which could potentially transport contaminants off site. There may be situations when visible dust is being generated and leaving the site and the monitoring equipment does not measure PM10 at or above the action level. Therefore, if dust is observed leaving the working site, additional dust suppression techniques must be employed by the CONTRACTOR.

21. The following master telephone list will be completed and prominently posted at the field office. At minimum, the list will have telephone numbers of all project personnel, emergency services including hospital, fire, police, and utilities. In addition, two copies with telephone numbers are to be given to the DEPARTMENT for emergency reference purposes.

<table>
<thead>
<tr>
<th>Emergency Service</th>
<th>Telephone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire Department</td>
<td>911</td>
</tr>
<tr>
<td>Police Department</td>
<td>911</td>
</tr>
<tr>
<td>Ambulance</td>
<td>911</td>
</tr>
<tr>
<td>Hospital/Emergency Care Facility</td>
<td></td>
</tr>
<tr>
<td>Eastern Niagara Hospital</td>
<td>(716) 514-5700</td>
</tr>
<tr>
<td>Poison Control Center</td>
<td>(800) 336-6997</td>
</tr>
<tr>
<td>Chemical Emergency Advice (CHEMTREC)</td>
<td>(800) 424-9300</td>
</tr>
<tr>
<td>NYSDEC Central Office</td>
<td></td>
</tr>
<tr>
<td>Work Hours</td>
<td>(518) 457-7878</td>
</tr>
<tr>
<td>After Hours</td>
<td>(800) 342-9296 (leave message)</td>
</tr>
<tr>
<td>NYSDEC Regional Office</td>
<td></td>
</tr>
<tr>
<td>Work Hours</td>
<td>(716) 851-7201</td>
</tr>
<tr>
<td>Niagara County Dept. of Health</td>
<td></td>
</tr>
<tr>
<td>Work Hours</td>
<td>(716) 439-7430</td>
</tr>
<tr>
<td>New York State Dept. of Health - Albany</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(518) 402-7890</td>
</tr>
<tr>
<td>New York State Dept. of Health</td>
<td></td>
</tr>
<tr>
<td>Western Region Buffalo Office</td>
<td>(716) 847-4302</td>
</tr>
</tbody>
</table>
PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

+++ END OF SECTION +++
COVID-19 RISK MANAGEMENT

PART 1 – GENERAL

1.1 SUMMARY

A. This Section includes requirements for managing and minimizing the potential for transmission of the Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) virus, which causes the Novel Coronavirus Disease 2019 (COVID-19). COVID-19 typically causes respiratory illness in people.

B. Transmission: SARS-CoV-2 is currently known to spread via respiratory droplets produced when a person infected with the virus coughs or sneezes, the same way flu and other respiratory illnesses spread. SARS-CoV-2 can also be transmitted if people touch surfaces and objects with the virus on it.

C. Symptoms: COVID-19 can cause mild to severe respiratory illness with symptoms of fever, cough, and difficulty breathing. Preliminary information suggests older adults and people with underlying health conditions or compromised immune systems may be at higher risk of severe illness from this virus. Center for Disease Control (CDC) believes that symptoms of COVID-19 begin between 2 and 14 days after exposure.

D. Best Practices to Prevent Infection: Currently the best way identified to prevent infection is to minimize the potential of exposure to SARS-CoV-2. CDC recommends everyday actions to help prevent the spread of any respiratory viruses
   - Wash your hands often with soap and water for at least 20 seconds. If soap and water are not available, use an alcohol-based hand sanitizer, containing at least 60% alcohol.
   - Avoid touching your eyes, nose, and mouth with unwashed hands.
   - Avoid close contact with people who are sick.
   - Stay home when you are sick.
   - Cover your cough or sneeze with a tissue, then throw the tissue in the trash can and wash hands or use hand sanitizer.
   - Clean and disinfect frequently touched objects and surfaces.
   - Wear face masks
   - Safe social distancing (e.g., maintain a distance of 6 feet between people, limited group meetings)
1.2 OBJECTIVE

A. The objective of this specification is to minimize transmission and subsequent infections of COVID-19 in project staff that may arise as a result of exposure to SARS-CoV-2 released into the environment during construction and renovation activities. Controlling the dispersal of airborne infectious agents is critical to achieving this objective.

1.3 PERFORMANCE REQUIREMENTS AND RESPONSIBILITIES

A. The intent of this Section is to document and formalize the Contractor’s requirements for minimizing the risk of transmission of COVID-19 among site workers, project staff, and the surrounding community during construction per the latest recommendations of federal, state and local health agencies. This includes developing a COVID-19 Management Plan, establishing procedures for conducting onsite work activities to prevent virus transmission, monitoring staff health, and reporting requirements.

B. The Contractor is expected to communicate the requirements described in this section to all site workers, subcontractors, and visitors to the site daily, during daily Health and Safety meetings as well as through site postings (see attachment).

C. Contractors and their subcontractors are required at all times to guard the safety and health of all persons on and in the vicinity of the work site.

D. Contractors and their subcontractors are required to comply with all applicable rules, regulations, codes, and bulletins of the New York State Department of Labor and the standards imposed under the Federal Occupational Safety and Health Act of 1970, as amended ("OSHA").

E. Contractors and their subcontractors must comply with all City or State of New York safety requirements for projects within the City or State of New York constructed in accordance with the applicable building code.

F. Contractors and their subcontractors shall stay current and immediately implement the most up-to-date government issued practices to protect the safety and health of your employees, clients, and the general public.

1.4 RELATED SECTIONS

A. Section X Standard Specifications: Section 01 35 29 – Contractor’s Health and Safety Plan

1.5 REFERENCES

A. Occupational Safety and Health Administration (OSHA) Guidance on Preparing Workplaces for COVID-19
B. New York State Department of Health
C. Centers for Disease Control and Prevention (CDC)
D. National Institute for Occupational Safety and Health (NIOSH)
E. Health Insurance Portability and Accountability Act (HIPAA)

1.6 SUBMITTALS

A. The Contractor shall prepare a COVID-19 Management Plan which can be a Supplement, or Addendum, to the Contractor’s Site Specific Health and Safety Plan as required by Section X Standard Specifications: Section 01 35 29 – Contractor’s Health and Safety Plan

B. The CONTRACTOR shall develop a one-page summary of site-specific practices for COVID-19 management and clearly display on site. Operating hours, delivery times, and extra considerations for works involving a high volume of personnel or potential for interaction with community members could also be included in the summary. Include an example one-page summary in the COVID-19 Management Plan required in this Section.

C. The Contractor’s Daily Health and Safety Field Report, as required by Section X Standard Specifications: Section 01 35 29 – Contractor’s Health and Safety Plan shall include a Daily Health Checklist, with the following questions at a minimum:

DAILY HEALTH CHECKLIST

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes ☐</th>
<th>No ☐</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is social distancing being practiced?</td>
<td></td>
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</tr>
<tr>
<td>Is the tail gate safety meeting held outdoors?</td>
<td>Yes ☐</td>
<td>No ☐</td>
</tr>
<tr>
<td>Are remote/call-in job meetings being held in lieu of meeting in person where possible?</td>
<td>Yes ☐</td>
<td>No ☐</td>
</tr>
<tr>
<td>Were personal protective gloves, masks, and eye protection being used?</td>
<td>Yes ☐</td>
<td>No ☐</td>
</tr>
<tr>
<td>Are sanitizing wipes, wash stations or spray available?</td>
<td>Yes ☐</td>
<td>No ☐</td>
</tr>
<tr>
<td>Have any workers/visitors been excluded based on close contact with individuals diagnosed with COVID-19, have recently traveled to restricted areas or countries, or are symptomatic (fever, chills, cough/shortness of breath)?</td>
<td>Yes ☐</td>
<td>No ☐</td>
</tr>
<tr>
<td>Comments:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1.7 COVID-19 MANAGEMENT PLAN

A. At a minimum, the COVID-19 Management Plan shall include:
   1. Identification of potential exposure pathways and exposure risks associated with work tasks, e.g. activity hazard analysis (AHA).
   2. Identification of local health department contact information and COVID-19 testing sites and procedures.
   3. Detailed written description of the onsite personnel protection measures that will be utilized and a detailed explanation of how they will be implemented, monitored, and communicated.
   4. Detailed written description of measures that will be taken to prevent transmission to or from the surrounding community and how they will be implemented and communicated.
   5. Procedures to be followed in the event a site worker is diagnosed with or is suspected of having COVID-19, including identification of all personnel potentially exposed and isolation requirements.
   6. Daily cleaning schedules and disinfection procedures per the most recent CDC guidelines.
   7. Cleaning and disinfection procedures in the event there is/are suspected COVID-19 case(s) among site personnel.
   8. Site access controls and entry/exit procedures.

B. The COVID-19 Management Plan must be updated following any issued change(s) in federal, state, or local health agency guidance.

1.8 PRECONSTRUCTION CONFERENCE

A. Pre-Construction Conference shall include a review of methods and procedures related to COVID-19 risk management including, but not limited to the following:
   1. Review of COVID-19 Management Plan
   2. Review infection control procedures
   3. Review staff monitoring and reporting requirements.

PART 2 - PRODUCTS - Not Used

PART 3 - EXECUTION

3.1 RISK IDENTIFICATION

A. COVID-19 is a new disease; scientists and health agencies are continuously learning about how it spreads. The Contractor shall adjust site policies based on the most up to date government issued guidance regarding transmission.

B. Contractor shall confirm staff that have worked in locations where quarantine orders are in place, have met the minimum quarantine guidance and do not have symptoms prior to mobilizing to site.
C. Contractor shall monitor staff daily, including checking, and documenting, temperature with no contact infrared thermometer, to confirm onsite staff do not exhibit COVID-19 symptoms. Contractor shall provide daily reports of those tests upon NYSDEC’s request.

3.2 RISK MINIMIZATION

A. Engineering Controls
   1. Increasing ventilation rates of interior workspaces.
   2. Access controls, including fences and locking gates.
   3. Maintain 6 feet distances, using distance markers where appropriate in the field.

B. Administrative Controls
   1. Continuous and effective communication of administrative controls/requirements to all site personnel and visitors, through the posting of site signage, preparation and distribution of site plans, presented during site meetings, and verbal warnings if necessary.
   2. Require that all employees exhibiting any COVID-19 symptom do not enter the site and provide sick leave policies to support this requirement.
   3. To minimize face-to-face interaction, the Site’s Health & Safety Officer’s (or other designated employee) phone number shall be prominently posted and disseminated to project staff to be called for the purpose of site sign in and sign out by all visitors to the site upon arrival and exit. The designated employee will receive entry and exit calls each day and will fill out the site entry/exit log for each site visitor to reduce traffic in site trailer and/or the number of individuals contacting the site access tracking log.
   4. Staffing: only those employees necessary to complete critical path task(s) shall be present on-site at any given time. Work shall be scheduled to minimize the density of personnel in any given area at any given time.
   5. Working Remotely; employees shall be encouraged to complete work remotely if possible.
   6. Face-to-face meetings shall be replaced with video or phone conferences when practicable.
   7. Social distancing shall be exercised for face-to-face meetings e.g. daily Health and Safety tailgate meeting. In addition, the Contractor shall plan to have multiple meetings (if necessary) to keep the number of participants to a threshold that allows for the practice of social distancing protocol. The Health and Safety officer will keep a record of all present for each meeting on the Health and Safety log.
   8. Quarantine staff that have been in contact with a anyone that tested positive and notify NYSDEC immediately.

C. Safe Work Practices
   1. The Contractor shall employ social distancing protocol for all onsite activities when able.
2. The Contractor provide PPE and adequate hand washing stations and hand sanitizer (containing a minimum of 60% alcohol) to allow site personnel and visitors to practice good personal hygiene.

3. The Contractor shall provide tissues, paper towels, no-touch trash cans, and disinfectants to maintain site cleanliness.

4. Sharing of tools and heavy equipment shall be limited to the extent practicable; handles of shared tools and equipment shall be sanitized regularly.

D. Personal Protective Equipment

1. Employees shall be provided disposable personal protective equipment (PPE), including gloves, goggles, face shields, face masks, and respiratory protection, as appropriate based on work environment and current recommendations by OSHA and CDC.

2. All PPE must be selected based on hazard to the worker, properly fitted and periodically refitted, consistently and properly worn when required, regularly inspected, maintained, and replaced, as necessary, and properly removed, cleaned, and stored or disposed of, to avoid contamination of self, others, or the environment.

3. PPE worn to prevent transmission of COVID-19 is not to be confused with PPE for protection against site contaminants.

4. PPE must be worn, removed, and disposed of correctly in order to remain effective.

   a. Face masks should fit snugly but comfortably against the side of the face and over the nose and be secured with ties or ear loops; cloth masks must include multiple layers of fabric, allow for breathing without restriction, and be able to be laundered and machine dried without damage.

   b. Face masks should be worn consistently and removed without touching eyes, nose, and mouth. An individual should wash their hands after handling a used face mask.

   c. Cloth face coverings should be sterilized by machine washing between use; disposable face masks shall be disposed of properly after using.

   d. Gloves are only effective if changed and disposed of frequently, to avoid cross-contamination.

3.3 NOTIFICATION OF POTENTIAL OR CONFIRMED INFECTION

A. The Contractor shall notify the Department immediately upon identification of a suspected or confirmed infection of COVID-19. This notification shall comply with HIPAA regulations.

B. The Contractor shall remove an individual suspected to have COVID-19 from the site immediately (to the individuals’ hotel or local place of residence if transport home is not immediately feasible), as well as those who have worked in close proximity.
contact with that individual for extended periods of time (an hour at a time or more) over the previous week. The individual with suspected infection shall contact their health care provider and/or follow local health department testing procedures and protocol.

C. While in the process of removing an employee exhibiting symptoms, steps should be taken to isolate the individual, place a surgical mask on the individual and inform the local health department and the NYSDEC.

D. In the event the individual with suspected infection cannot get home right away, they shall isolate in their hotel room (notifying hotel management of their symptoms), contact their health care provider, and/or follow local health department testing procedures and protocol.

E. In the absence of local health department information, the individual may call the New York State Hotline at 1-888-364-3065.

F. The Contractor shall maintain communication with potentially infected individual(s) and notify the Engineer upon receipt of COVID-19 test results.

G. Positively infected individuals may return to work at the site after 72 hours of being symptom-free and 7 days of isolation after the first symptoms appeared, or in accordance with the current federal, state, and local guidelines.

H. OSHA recordkeeping requirements at 29 CFR Part 1904 mandate covered employers record certain work-related injuries and illnesses on their OSHA 300 log. COVID-19 can be a recordable illness if a worker is infected as a result of performing their work-related duties. However, employers are only responsible for recording cases of COVID-19 if all the following are met:

1. The case is a confirmed case of COVID-19 (see CDC information on persons under investigation and presumptive positive and laboratory-confirmed cases of COVID-19).

2. The case is work-related, as defined by 29 CFR 1904.5; and

3. The case involves one or more of the general recording criteria set forth in 29 CFR 1904.7 (e.g. medical treatment beyond first-aid, days away from work).

END OF SECTION
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New York State Department of Environmental Conservation’s (DEC) objective is to provide a safe and healthy workplace. In response to COVID-19, DEC is prohibiting access to our work areas by those who pose an elevated risk of spreading COVID-19. By completing this site Entry/Exit log, you acknowledge your understanding of this policy and confirm that your health and travel history is NOT in one of the prohibited access groups listed below, and to the best of your knowledge, you do not pose an elevated risk of transmitting COVID-19 to others. Please leave the site immediately and follow recommendations from public health agencies and your healthcare provider if you fall into one of the prohibited access groups listed below:

- You are experiencing flu-like symptoms including but not limited to fever, chills, cough, sore throat, diarrhea, vomiting, runny/stuffy nose, muscle or body aches, headaches, fatigue.

- You have traveled to CDC-restricted destinations in the last 2 weeks including China, South Korea, Iran, United Kingdom & Ireland, all European Union countries, Switzerland and regions within the U.S. for which public health agencies have prohibited travel.

- You had direct contact with a person diagnosed with COVID-19 or suspected of having COVID-19 during the last 2 weeks.

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<th>Time Out</th>
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PREVENT INFECTION

Wash your hands and use hand sanitizer
Wash your hands frequently and thoroughly, for a minimum of 20 seconds.
Use hand sanitizer, containing at least 60% alcohol when you are unable to wash your hands with soap and water.

Cover your cough or sneeze
Cover your mouth and nose when coughing or sneezing. Turn your head away from others, if possible, when sneezing.
Use a paper tissue or your sleeve and not your hand. Dispose of used tissues immediately.

Limit physical contact
Avoid handshakes, kisses and hugs.
Maintain at least 6 feet from all others persons when possible.

Keep clean
Regularly sanitize frequently touched and shared surfaces at home as well as at work.

Be considerate
Stay home whenever possible especially if you are experiencing symptoms.
SITE ACCESS RESTRICTIONS

SITE ACCESS IS PROHIBITED FOR THE FOLLOWING PERSONS DUE TO COVID-19 RISK

• **You are experiencing flu-like symptoms including but not limited to:**

  Fever or feeling feverish/chills, cough, sore throat, diarrhea, vomiting, runny or stuffy nose, muscle or body aches, headaches, fatigue (tiredness)

• **You have traveled to CDC-restricted destinations during the last 2 weeks:**

  China, South Korea, Iran, United Kingdom & Ireland, all European Union countries, Switzerland and regions within the U.S. for which public health agencies have prohibited travel

• **You had direct contact with a person diagnosed with COVID-19 or suspected of having COVID-19 during the last 2 weeks**

  Immediately notify NYSDEC site management.
PART 1 – GENERAL

1.1 DESCRIPTION

A. Scope:
1. CONTRACTOR shall provide all labor, materials, equipment, tools, and incidentals necessary to comply with environmental procedures for Constituents of Concern.
2. CONTRACTOR shall develop, implement, and maintain throughout the Project a hazardous materials management program (HMMP) as part of the SSHASP in accordance with Laws and Regulations.
3. Constituents of Concern Brought to Site by CONTRACTOR: Transport, handle, store, label, use, and dispose of in accordance with this Section, other applicable provisions of the Contract Documents, and Laws and Regulations.
4. Constituents of Concern Generated by CONTRACTOR:
   a. Materials containing Constituents of Concern shall be properly handled, stored, labeled, transported and disposed of by CONTRACTOR in accordance with Laws and Regulations, and this Section.
   b. If CONTRACTOR will generate or has generated materials containing Constituents of Concern at the Site, obtain a USEPA identification number listing CONTRACTOR’s name and address of the Site as generator of the Constituents of Concern. Obtain identification number from state environmental agency or similar authority having jurisdiction at the Site. Submit identification number within time frame specified in Article 1.3 of this Section.
   c. CONTRACTOR shall be responsible for identifying, analyzing, profiling, transporting, and disposing of Constituents of Concern generated by CONTRACTOR.
5. Fines or civil penalties levied against DEPARTMENT for violations committed at the Site by CONTRACTOR, and costs to DEPARTMENT (if any) associated with cleanup of a Hazardous Environmental Condition created by CONTRACTOR shall be paid by CONTRACTOR. If CONTRACTOR has exacerbated a Hazardous Environmental Condition existing at the Site prior to the start of the Work, CONTRACTOR shall pay a share of costs associated with fines, civil penalties, and cleanup costs to in proportion equal to the extent of CONTRACTOR’s responsibility for creating the Hazardous Environmental Condition and fines and civil penalties associated therewith.
B. Enforcement of Laws and Regulations:
1. Interests of DEPARTMENT are that accidental spills and emissions, Site contamination, and injury of personnel at and near the Site are to be avoided.
2. When DEPARTMENT is aware of suspected violations, DEPARTMENT will notify CONTRACTOR, and authorities having jurisdiction if DEPARTMENT reasonably concludes that doing so is required by Laws or Regulations.
3. Responsibilities regarding Laws and Regulations shall be in accordance with the General Conditions, as may be modified by the Supplementary Conditions.

1.2 QUALITY ASSURANCE

A. Regulatory Requirements: Comply with applicable Laws and Regulations.

1.3 SUBMITTALS

A. Informational Submittals: Submit the following to the entity(ies) specified for each:
1. Constituents of Concern (including Chemicals) Proposed for Use at the Site:
   a. Content:
      2) Manufacturer of material or equipment containing such substance.
      3) Supplier (if different than manufacturer).
      4) Container size(s) and number of containers proposed to be at the Site.
      5) Minimum and maximum volume of material intended to be stored at the Site.
      6) Description of process or procedures in which Constituent of Concern will be used at the Site.
   b. Furnish the information required above in sufficient time to obtain DEPARTMENT’s acceptance, no later than three days before bringing Constituent of Concern to the Site.
   c. Submit to ENGINEER.
2. Material Containing Constituents of Concern Generated at the Site:
   a. Submit for each Constituent of Concern generated at the Site identification number, analysis results, and number and size of storage containers at the Site.
   b. Furnish such information within not less than 48 hours after CONTRACTOR’s receipt of analytical results.
   c. Submit to ENGINEER.
3. Permits:
   a. Submit copies of permits for storing, handling, using, transporting, and disposing of materials containing Constituents of Concern, obtained from authorities having jurisdiction.
   b. Submit to ENGINEER.
4. Other Documents required for the HMMP (including Communications Plan, Emergency/Spill Response Plan, and other documents): Submit as components of the Preliminary, Draft, and Final Site Specific Health and Safety Plan required by Section X Standard Specifications: Section 01 35 29 – Contractor’s Health and Safety Plan.

1.4 HAZARDOUS MATERIALS MANAGEMENT

A. Obtain ENGINEER’s and/or DEPARTMENT’s environmental representative’s acceptance before bringing to the Site each material containing a Constituent of Concern.

B. Communication Plan (included as a component of the Site Specific Health and Safety Plan as required by Section X Standard Specifications: Section 01 35 19 – Contractor’s Health and Safety Plan):
   1. CONTRACTOR shall develop a communication plan relative to materials containing one or more Constituents of Concern.
   2. SDS Notebooks:
      a. At minimum, maintain at the Site two notebooks containing: 1) Inventory of materials containing a Constituent of Concern (including all chemicals); and, 2) Current (dated within the past two years) SDS for all materials being used to accomplish the Work, whether or not defined as a Constituent of Concern.
      b. Keep one notebook in CONTRACTOR’s field office at the Site; keep second notebook at location acceptable to ENGINEER.
      c. Keep notebooks up-to-date as materials are brought to and removed from the Site.

C. Emergency/Spill Response Plan (included as a component of the Site Specific Health and Safety Plan as required by Section X Standard Specifications: Section 01 35 19 – Contractor’s Health and Safety Plan): Develop, implement, and maintain an emergency/spill response plan, for each Constituent of Concern or each class/group of material containing a Constituent of Concern, as applicable. At minimum, response plan shall include the following:
   1. Description of equipment available at the Site to contain or respond to emergency related to or spill of the material.
   2. Procedures for notifying, and contact information for: authorities having jurisdiction, emergency responders, DEPARTMENT, ENGINEER, the public as applicable, and other entities as required.
   3. Response coordination procedures between CONTRACTOR, DEPARTMENT and others as appropriate.
4. Site plan showing proposed location of Constituents of Concern storage area and location of spill containment/response equipment, and location of storm water drainage inlets and drainage routes, including storm sewers, ditches and swales, and surface waters.
5. Description of Constituent of Concern handling and spill response training provided to CONTRACTOR’s and Subcontractors’ employees, in accordance with 29 CFR 1926.21(b) and other Laws and Regulations.

D. Storage of Materials Containing Constituents of Concern and Storage of Non-Hazardous Materials:
   1. Vessels containing materials with a Constituent of Concern shall bear applicable hazard diamond(s).
   2. Container Labeling:
      a. Properly label each container of consumable materials, whether or not classified as containing a Constituent of Concern.
      b. Stencil CONTRACTOR’s name and, as applicable, Subcontractor’s name, on each vessel containing a Constituent of Concern and, for non-hazardous materials, on each container over five-gallon capacity. Containers shall bear securely-attached label clearly identifying contents. Label containers that are filled from larger containers.
      c. If DEPARTMENT becomes aware of unlabeled containers at the Site, ENGINEER and/or DEPARTMENT’s environmental representative will so advise CONTRACTOR. Properly label container(s) within one hour of receipt of such notice from DEPARTMENT or remove container from the Site.
   3. To greatest extent possible, store off-Site materials containing a Constituent of Concern until required for use in the Work.

E. Area for Storing Materials Containing a Constituent of Concern:
   1. Maintain designated storage area for materials containing a Constituent of Concern. Storage area shall include secondary containment to prevent release of spilled or leaking substances. Storage area shall include barriers to prevent vehicles from colliding with storage containers and shall include protection from environmental factors such as weather.
   2. Provide signage in accordance with Laws and Regulations, clearly identifying the storage area.

F. Not less than monthly, CONTRACTOR’s safety representative shall meet with the ENGINEER and/or DEPARTMENT’s environmental representative to review CONTRACTOR’s HMMP documents, procedures, and inspect storage areas and the Site in general, to verify compliance with this Section.

PART 2 – PRODUCTS (NOT USED)
PART 3 – EXECUTION (NOT USED)

++ END OF SECTION ++
OTHER TEXT

PART 1 – GENERAL

1.1 DESCRIPTION

A. Scope:

   1. Section includes the following:
      b. Applicable codes.
      c. DEPARTMENTS’s referenced specifications, where applicable.
      d. Abbreviations in general use throughout the Contract Documents.
      e. General requirements regarding reference standards, including a listing
         of standard-issuing organizations (and their acronyms) used in the
         Contract Documents.

1.2 DEFINITIONS AND TERMINOLOGY

A. Definitions and terminology applicable to all the Contract Documents are included
   in Section VIII General Conditions, as may be modified by Section IX
   Supplementary Conditions.

B. Additional terminology used in the Contract Documents includes the following:

   1. “Indicated” refers to graphic representations, notes, or schedules on the
      Drawings, or to other paragraphs, provisions, tables, or schedules in the
      Specifications and similar locations in the other Contract Documents. Terminology such as “shown”, “noted”, “scheduled”, and “specified” are
      used to help the user locate the reference without limitation on the location.

   2. “Installer”, “applicator”, or “erector” is CONTRACTOR or another person or
      entity engaged by CONTRACTOR, either as an employee or Subcontractor,
      to perform a particular construction activity, including installation, erection,
      application, or similar Work. Installers shall be experienced in the Work that
      installer is engaged to perform.
      a. The term “experienced”, when used in conjunction with the term
         “installer”, means having successfully completed not less than five
         previous projects similar in size and scope to this Project; being familiar
         with the special requirements indicated and required; being familiar
         with Laws and Regulations; and having complied with requirements of
         authorities having jurisdiction, and complying with requirements of the
         Supplier of the material or equipment being installed, unless other
         experience requirements specific to that element of the Work are
         indicated elsewhere in the Contract Documents.

   3. “Site” refers to the horizontal and vertical area requiring Work by Contractor,
      as bounded by and represented in the Contract Documents.
4. “Contractor work area” also referred to as the “limit of disturbance” refers to the horizontal and vertical area requiring Work by the Contractor as depicted on the Contract Drawings.

5. Trades: Use of terms such as “carpentry” does not imply that certain construction activities must be performed by accredited or unionized individuals of a corresponding generic name, such as “carpenter”, unless otherwise indicated in the Contract Documents or required by Laws or Regulations. Such terminology also does not imply that specified requirements apply exclusively to trade personnel of the corresponding generic name.

6. “Assigned specialists” and similar terms: Certain Sections of the Specifications require that specific construction activities be performed by specialists with recognized, extensive experience in such operations. Engage said specialists for such activities, and their engagement is a requirement over which CONTRACTOR has no option. These requirements do not conflict with enforcement of building codes and other Laws and Regulations. Also, such requirements are not intended to interfere with local trade union jurisdictional settlements and similar conventions. Such assignments shall not relieve CONTRACTOR of responsibility for complying with the requirements of the Contract Documents.

1.3 APPLICABLE CODES

A. References in the Contract Documents to local code(s) shall mean the following:
   1. National Electric Code in effect at the location of the Project.

1.4 ABBREVIATIONS

A. Common abbreviations that may be found in the Contract Documents are indicated below, alphabetically by their written-out meaning:

- alternating current: a-c
- ampere: A
- antemeridian: a.m.
- Architectural Barriers Act: ABA
- Americans with Disabilities Act: ADA
- Americans with Disabilities Act Accessibility Guidelines: ADAAG
- ante meridian: a.m.
- average: avg
- biochemical oxygen demand: BOD
- five-day biochemical oxygen demand: BOD₅
- brake horsepower: bhp
<table>
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<tr>
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<tr>
<td>chemical oxygen demand</td>
<td>COD</td>
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<td>chlorinated polyvinyl chloride</td>
<td>CPVC</td>
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<td>chlorofluorocarbons</td>
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<td>Code of Federal Regulations</td>
<td>CFR</td>
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<td>computer-aided drafting and design</td>
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<td>cubic yard</td>
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<td>degree Centigrade (or Celsius) (Write)</td>
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**Hertz**

**horsepower**  

**hour**  

**human-machine interface**  

**inch**  

**inches of mercury**  

**inches water gage**  

**inch-pound**  

**inside diameter**  

**iron pipe size**  

**thousand pounds**  

**thousand pounds per square inch**  

**kilovolt-ampere**  

**kilowatt**  

**kilowatt-hour**  

**linear foot**  

**liter**  

**Lockport City Landfill**  

**Lockport City Landfill Sediment Cell**  

**Leadership in Energy and Environmental Design (USGBC)**  

**maximum**  

**mercury**  

**milligram**  

**milligrams per liter**  

**milliliter**  

**millimeter**  

**million gallons per day**  

**minimum**  

**national pipe threads**  

**net positive suction head**  

**net positive suction head available**  

**net positive suction head required**  

**nitrogen oxide (total concentration of mono-nitrogen oxides such as nitric oxide (NO) and nitrogen dioxide (NO₂))**  

**nominal pipe size**  

**number**  

**Hz**  

**hp or HP**  

**hr**  

**HMI**  

**in.**  

**in. Hg**  

**in. w.g.**  

**in.-lb**  

**ID**  

**IPS**  

**kips**  

**ksi**  

**kva**  

**kw**  

**kwhr or kwh**  

**lin ft or LF**  

**L**  

**LCL**  

**LCLSC**  

**LEED**  

**max**  

**Hg**  

**mg**  

**mg/l or mg/L**  

**ml**  

**mm**  

**mgd or MGD**  

**MG**  

**min**  

**NPT**  

**NPSH**  

**NPSHA**  

**NPSHR**  

**NOx**  

**NPS**  

**no.**
operator interface terminal
ounce
ounce-force
outside diameter
parts per hundred
parts per million
parts per billion
polychlorinated biphenyl
polyvinyl chloride
post meridian
pound
pounds per square inch
pounds per square inch absolute
pounds per square inch gauge
pounds per square foot
process control system
programmable logic controller
revolutions per minute
second
specific gravity
square
square foot
square inch
square yard
standard
standard cubic feet per minute
total dynamic head
totally-enclosed fan-cooled
volt
volts alternating current
volts direct current
volatile organic compounds

1.6 REFERENCE STANDARDS

A. Refer to Section VIII General Conditions: Article 3, as may be modified by Section IX Supplementary Conditions, relative to reference standards and resolving discrepancies between reference standards and the Contract Documents.
Provisions of reference standards are in effect in accordance with the Specifications.

B. Copies of Standards: Each entity engaged in the Work shall be familiar with reference standards applicable to its construction activity. Copies of applicable reference standards are not bound with the Contract Documents. Where reference standards are needed for a construction activity, obtain copies of standards from the publication source.

C. Abbreviations and Names: Where reference standards, specifications, codes, manuals, Laws or Regulations, or other published data of international, national, regional or local organizations are referred to in the Contract Documents, the organization issuing the standard may be referred to by their acronym or abbreviation only. The following acronyms or abbreviations that may appear in the Contract Documents shall have the meanings indicated below. Listing is alphabetical by acronym.

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>AA</td>
<td>Aluminum Association</td>
</tr>
<tr>
<td>AABC</td>
<td>Associated Air Balance Council</td>
</tr>
<tr>
<td>AAMA</td>
<td>American Architectural Manufacturers Association</td>
</tr>
<tr>
<td>AASHTO</td>
<td>American Association of State Highway and Transportation Officials</td>
</tr>
<tr>
<td>ACI</td>
<td>American Concrete Institute</td>
</tr>
<tr>
<td>ACS</td>
<td>American Chemical Society</td>
</tr>
<tr>
<td>ADSC-IAFD</td>
<td>International Association of Foundation Drilling.</td>
</tr>
<tr>
<td>AEIC</td>
<td>Association of Edison Illuminating Companies</td>
</tr>
<tr>
<td>AF&amp;PA</td>
<td>American Forest and Paper Association</td>
</tr>
<tr>
<td>ABMA</td>
<td>American Bearing Manufacturers Association (formerly Anti-Friction Bearing Manufacturers Association (AFBMA))</td>
</tr>
<tr>
<td>AGMA</td>
<td>American Gear Manufacturers Association</td>
</tr>
<tr>
<td>AI</td>
<td>Asphalt Institute</td>
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<tr>
<td>AIA</td>
<td>American Institute of Architects</td>
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<tr>
<td>AICHE</td>
<td>American Institute of Chemical Engineers</td>
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<tr>
<td>AISC</td>
<td>American Institute of Steel Construction</td>
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<tr>
<td>AISI</td>
<td>American Iron and Steel Institute</td>
</tr>
<tr>
<td>AITC</td>
<td>American Institute of Timber Construction</td>
</tr>
<tr>
<td>ALSC</td>
<td>American Lumber Standards Committee</td>
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<tr>
<td>AMA</td>
<td>Acoustical Materials Association</td>
</tr>
<tr>
<td>AMCA</td>
<td>Air Movement and Control Association</td>
</tr>
<tr>
<td>AMP</td>
<td>National Association of Architectural Metal Manufacturers, Architectural Metal Products Division</td>
</tr>
<tr>
<td>ANSI</td>
<td>American National Standards Institute</td>
</tr>
</tbody>
</table>
APA The Engineered Wood Association
APHA American Public Health Association
API American Petroleum Institute
AREA American Railway Engineering Association
ARI Air Conditioning and Refrigeration Institute
ASAE American Society of Agricultural Engineers
ASCE American Society of Civil Engineers
ASHRAE American Society of Heating, Refrigerating and Air Conditioning Engineers
ASME American Society of Mechanical Engineers
ASNT American Society for Non-Destructive Testing
ASQ American Society for Quality
ASSE American Society of Safety Engineers
ASTM American Society for Testing and Materials
AWCI Association of the Wall and Ceiling Industry
AWI Architectural Woodwork Institute
AWPA American Wood Protection Association
AWPI American Wood Preservers Institute
AWS American Welding Society
AWWA American Water Works Association
BAAQM Bay Area Air Quality Management District
BHMA Builders Hardware Manufacturers Association
BIA Brick Industry Association
CBMA Certified Ballast Manufacturers Association
CDA Copper Development Association
CEMA Conveyor Equipment Manufacturers Association
CGA Compressed Gas Association
CISCA Ceilings and Interior Systems Construction Association
CISPI Cast Iron Soil Pipe Institute
CLFMI Chain Link Fence Manufacturers Institute
CMAA Crane Manufacturers Association of America
CRSI Concrete Reinforcing Steel Institute
CSI Construction Specifications Institute
DIN Deutsches Institut fur Normung eV (German Institute for Standardization)
DIPRA Ductile Iron Pipe Research Association
EJCDC Engineers Joint Contract Documents Committee
EJMA Expansion Joint Manufacturers Association, Inc.
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>ETL</td>
<td>Intertek Testing Services, Inc. (formerly ETL Testing Laboratories, Inc.)</td>
</tr>
<tr>
<td>FCC</td>
<td>Federal Communications Commission</td>
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<tr>
<td>FEMA</td>
<td>Federal Emergency Management Agency</td>
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<tr>
<td>FHWA</td>
<td>Federal Highway Administration</td>
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<tr>
<td>FM</td>
<td>Factory Mutual (FM Global)</td>
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<tr>
<td>FRPI</td>
<td>Fiberglass Reinforced Plastics Institute</td>
</tr>
<tr>
<td>FS</td>
<td>Federal Specification</td>
</tr>
<tr>
<td>GA</td>
<td>Gypsum Association</td>
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<tr>
<td>GANA</td>
<td>Glass Association of North America</td>
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<tr>
<td>HEW</td>
<td>United States Department of Health, Education and Welfare</td>
</tr>
<tr>
<td>HI</td>
<td>Hydraulic Institute</td>
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<tr>
<td>HMI</td>
<td>Hoist Manufacturers Institute</td>
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<tr>
<td>HUD</td>
<td>United States Department of Housing and Urban Development</td>
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<tr>
<td>IBC</td>
<td>International Building Code</td>
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<tr>
<td>ICC</td>
<td>International Code Council</td>
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<tr>
<td>ICEA</td>
<td>Insulated Cable Engineers Association</td>
</tr>
<tr>
<td>IEEE</td>
<td>Institute of Electrical and Electronics Engineers</td>
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<tr>
<td>IESNA</td>
<td>Illuminating Engineering Society of North America</td>
</tr>
<tr>
<td>IFI</td>
<td>Industrial Fasteners Institute</td>
</tr>
<tr>
<td>IRI</td>
<td>Industrial Risk Insurers</td>
</tr>
<tr>
<td>ISA</td>
<td>Instrumentation, Systems, and Automation Society (formerly Instrument Society of America)</td>
</tr>
<tr>
<td>ISO</td>
<td>Insurance Services Office</td>
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<tr>
<td>ISO</td>
<td>International Organization for Standardization</td>
</tr>
<tr>
<td>LPI</td>
<td>Lightning Protection Institute</td>
</tr>
<tr>
<td>MIA</td>
<td>Marble Institute of America</td>
</tr>
<tr>
<td>ML/SFA</td>
<td>Metal Lath/Steel Framing Association</td>
</tr>
<tr>
<td>MS</td>
<td>Military Specifications</td>
</tr>
<tr>
<td>MSS</td>
<td>Manufacturers’ Standardization Society</td>
</tr>
<tr>
<td>MMA</td>
<td>Monorail Manufacturers Association</td>
</tr>
<tr>
<td>NAAMM</td>
<td>National Association of Architectural Metal Manufacturers</td>
</tr>
<tr>
<td>NACE</td>
<td>National Association of Corrosion Engineers</td>
</tr>
<tr>
<td>NAPF</td>
<td>National Association of Pipe Fabricators, Inc.</td>
</tr>
<tr>
<td>NARUC</td>
<td>National Association of Regulatory Utilities Commissioners</td>
</tr>
<tr>
<td>NBHA</td>
<td>National Builders Hardware Association</td>
</tr>
<tr>
<td>NBS</td>
<td>United States Department of Commerce, National Bureau of Standards</td>
</tr>
<tr>
<td>NCMA</td>
<td>National Concrete Masonry Association</td>
</tr>
<tr>
<td>NEC</td>
<td>National Electric Code</td>
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</tbody>
</table>
NELMA Northeastern Lumber Manufacturers’ Association
NEMA National Electrical Manufacturers Association
NESC National Electrical Safety Code
NETA International Electrical Testing Association
NFPA National Fire Protection Association
NFRC National Fenestration Rating Council
NGA National Glass Association
NHLA National Hardwood Lumber Association
NHPMA Northern Hardwood and Pine Manufacturers Association
NIST United States Department of Commerce, National Institute of Standards and Technology
NLGA National Lumber Grades Authority
NRCA National Roofing Contractors Association
NRMCA National Ready Mixed Concrete Association
NSF National Sanitation Foundation
NSSGA National Stone, Sand, and Gravel Association
NTMA National Terrazzo and Mosaic Association
OSHA Occupational Safety and Health Administration
PCA Portland Cement Association
PCI Precast/Prestressed Concrete Institute
PEI Porcelain Enamel Institute
PFI Pipe Fabrication Institute
PPI Plastics Pipe Institute
PGMC Primary Glass Manufacturers Council
PS Product Standards Section, United States Department of Commerce
RCSC Research Council on Structural Connections (part of AISC)
RMA Rubber Manufacturers Association
SAE Society of Automotive Engineers
SCAQMD Southern California Air Quality Management District
SCPRF Structural Clay Products Research Foundation
SCTE Society of Cable Telecommunications Engineers
SDI Steel Deck Institute
SDI Steel Door Institute
SIGMA Sealed Insulating Glass Manufacturing Association
SJI Steel Joist Institute
SMACNA Sheet Metal and Air Conditioning Contractor’s National Association
SPI Society of the Plastics Industry
SPIB Southern Pine Inspection Bureau
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Full Name</th>
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</thead>
<tbody>
<tr>
<td>SSPC</td>
<td>Society for Protective Coatings</td>
</tr>
<tr>
<td>SWI</td>
<td>Steel Window Institute</td>
</tr>
<tr>
<td>TCNA</td>
<td>Tile Council of North America</td>
</tr>
<tr>
<td>TEMA</td>
<td>Tubular Exchanger Manufacturers Association</td>
</tr>
<tr>
<td>TIA/EIA</td>
<td>Telecommunications Industry Association/Electronic Industries Alliance</td>
</tr>
<tr>
<td>UL</td>
<td>Underwriters Laboratories, Inc.</td>
</tr>
<tr>
<td>USAB</td>
<td>United States Access Board</td>
</tr>
<tr>
<td>USDoe</td>
<td>United States Department of Energy</td>
</tr>
<tr>
<td>USEPA</td>
<td>United States Environmental Protection Agency</td>
</tr>
<tr>
<td>USGBC</td>
<td>United States Green Building Council</td>
</tr>
<tr>
<td>USGS</td>
<td>United States Geological Survey</td>
</tr>
<tr>
<td>USPHS</td>
<td>United States Public Health Service</td>
</tr>
<tr>
<td>WCLIB</td>
<td>West Coast Lumber Inspection Bureau</td>
</tr>
<tr>
<td>WCMA</td>
<td>Window Covering Manufacturers Association</td>
</tr>
<tr>
<td>WCMA</td>
<td>Wood Component Manufacturers Association</td>
</tr>
<tr>
<td>WDMA</td>
<td>Window and Door Manufacturers Association</td>
</tr>
<tr>
<td>WEF</td>
<td>Water Environment Federation</td>
</tr>
<tr>
<td>WWEMA</td>
<td>Water and Wastewater Equipment Manufacturers Association</td>
</tr>
<tr>
<td>WWPA</td>
<td>Western Wood Products Association</td>
</tr>
</tbody>
</table>

**PART 2 – PRODUCTS (NOT USED)**

**PART 3 – EXECUTION (NOT USED)**

++ END OF SECTION ++
SECTION 01 45 29

TESTING LABORATORY SERVICES FURNISHED BY CONTRACTOR

PART 1 – GENERAL

1.1 DESCRIPTION

A. Scope:
   1. This section includes requirements for sampling services furnished by the CONTRACTOR for sampling, analysis, and reporting.
   2. CONTRACTOR shall employ and pay for services of independent testing laboratory to perform specified services.
   3. Inspection, sampling, and testing shall be as specified in the Section XI Supplementary Specifications including but not limited to the following Sections:
      a. 02 70 20 - Water Treatment
      b. 02 81 00 - Offsite Transportation and Disposal
      c. 31 05 20 – Geosynthetic Clay Liner
      d. 31 05 21 – Geomembrane Barrier
      e. 31 05 22 – Geocomposites
      f. 31 23 23 – Fill for Restoration
      g. 31 23 24 – Groundwater Underdrain
      h. 31 23 25 – Sand Gas Venting Layer
      i. 31 23 26 – Barrier Protection Layer
      j. 31 32 00 – Sediment Processing
      k. 31 37 16 – Buttress
      l. 32 12 16 – Asphalt Paving
      m. 33 05 32 – Gas Vents
      n. 33 42 01 – Cap Appurtenances
   4. CONTRACTOR shall pay for:
      a. Tests not specifically indicated in the Contract Documents as being DEPARTMENT ’s or ENGINEER’s responsibility.
      b. Tests made for CONTRACTOR’s convenience.
      c. Repeat tests required because of CONTRACTOR’s negligence or defective Work and retesting after failure of test for the same item to comply with the Contract Documents.
   5. Testing laboratory is not authorized to approve or accept any portion of the Work or defective Work; rescind, alter, or augment requirements of Contract Documents; nor perform duties of CONTRACTOR.

1.2 REFERENCES

A. Standards referenced in this Section are:
   1. New York State Analytical Services Protocol (ASP)
2. NYSDEC Technical Guidance for Site Investigation and Remediation DER-10, Appendix 2-B
3. Geosynthetics Accreditation Institute – Laboratory Accreditation Program (GAI-LAP)

1.3 QUALITY ASSURANCE

A. Qualifications:
1. Unless specified otherwise, testing laboratories shall meet the following requirements:
   a. Comply with applicable requirements of New York State Department of Environmental Conservation, DER-10 Technical Guidance for Site Investigation and Remediation (May 2010)
   b. Testing laboratory shall be NYSDOH ELAP certified.
2. Testing laboratories required for testing of geosynthetics shall meet the following requirements
   a. The laboratory must be certified laboratory by the Geosynthetics Accreditation Institute – Laboratory Accreditation Program (GAI-LAP)
   b. The geosynthetic testing laboratory shall comply with the requirements of the referenced Geosynthetic Research Institute (GRI) Standard Specification for Test Methods. The specific GRI Standard Specification is identified in the relevant Section XI Supplementary Specifications.

B. Quality Control/Quality Assurance Sampling
1. Samples will be considered environmental samples, not waste samples, and require strict adherence to QA/QC requirements for environmental samples.
2. Laboratory QA/QC samples include analysis of one matrix spike/matrix spike duplicate (MS/MSD) set per 20 samples, per batch, or per samples collected within seven days, whichever is more frequent. One matrix spike blank analysis for every MS/MSD set is also required to substantiate any matrix interferences.
3. Field duplicates and field rinsate blank QC samples are required. Field duplicate samples shall be collected and analyzed at a rate of one per every 10 field samples. Field rinsate blank samples are not required if dedicated sampling equipment is used.

1.4 SUBMITTALS

A. Informational Submittals: Submit the following:
1. Sampling Plan and Quality Control Project Plan. At a minimum, the following iterations of the Sampling Plan and Quality Control Project Plan are required:
a. Preliminary Sampling Plan and Quality Control Project Plan
   1) Part of the five-day submittal package required by Section III Bidding Information and Requirements: Article 5 and Section X Standard Specifications: Section 01 33 00 – Submittal Procedures
   2) Submit within 5 days following the Notice of Apparent Low Bidder
   3) Include qualification statements of each laboratory to be used, including copies of valid, applicable certifications such as NYSDOH ELAP certification or GAI-LAP certification

b. Draft Sampling Plan and Quality Control Project Plan
   1) Submitted the sooner of seven days prior to the pre-construction conference, or 30 days prior to CONTRACTOR’s schedule mobilization to the Site.
   2) Updated to address comments received from the DEPARTMENT and ENGINEER on the Preliminary Sampling Plan and Quality Control Project Plan.

c. Final Sampling Plan and Quality Control Project Plan
   1) Submitted prior to start of Work at the Site.
   2) Updated to address comments received from the DEPARTMENT and ENGINEER on the Draft Sampling Plan and Quality Control Project Plan

d. Additional iterations and/or updated Sampling Plan and Quality Control Project Plans as requested by the ENGINEER or as necessary due to changed conditions.

e. Each iteration of the Sampling Plan and Quality Control Project Plan shall include the following, at a minimum:
   1) A chart and/or map indicating the approximate number of samples to be collected and the matrices of each, including anticipated QA/QC samples.
   2) Procedures for sample collection.
   3) Description of sampling equipment and maintenance procedures for the equipment.
   4) Procedures for decontamination of sampling equipment.
   5) Sample handling, labeling and regulatory compliance procedures for shipping.
   6) Training requirements for environmental sampling for new employees and refresher training requirements for current employees.

2. Quality Assurance Project Plan (QAPP). At a minimum, the following iterations of the QAPP are required:

a. Preliminary QAPP
   1) Part of the five-day submittal package required by Section III Bidding Information and Requirements: Article 5 and Section X Standard Specifications: Section 01 33 00 – Submittal Procedures
2) Submit within 5 days following the Notice of Apparent Low Bidder

b. Draft QAPP
   1) Submitted the sooner of seven days prior to the pre-construction conference, or 30 days prior to CONTRACTOR’s schedule mobilization to the Site.
   2) Updated to address comments received from the DEPARTMENT and ENGINEER on the Preliminary QAPP

c. Final QAPP
   1) Submitted prior to start of Work at the Site.
   2) Updated to address comments received from the DEPARTMENT and ENGINEER on the Draft QAPP

d. Additional iterations and/or updated QAPPs as requested by the ENGINEER or as necessary due to changed conditions.

e. Each iteration of the QAPP shall be project specific and include the following, at a minimum:
   1) Organizational chart, including a designated QA Officer.
   2) Data quality objectives for the site.
   3) A chart reflecting types of samples, approximate number of samples, matrices, holding times, analytical protocols and anticipated QA/QC samples to be collected or analyzed.
   4) Specific limits of concern for each analyte for each matrix to be sampled.
   5) The matrix specific method detection limit that must be obtained for each of the analytes and matrices listed.
   6) The analytical laboratory to be used and evidence of their certification for all subcategories of solid and hazardous waste, including CLP metals, under the NYSDOH ELAP CLP.
   7) Criteria for laboratory selection and audits.
   8) Criteria for field sampling audits.
   9) Record maintenance and archive methods.
   10) Review and checking procedures for the sampling plan and the analytical results reporting.
   11) Copy of the QAO’s resume and training certificates. QAO must be proficient in analytical methodology, data interpretation and validation, quality control procedures and auditing techniques. The QAO shall interface with laboratory and data validator to make requests and or resolve issues specific to data usability.

3. **Test Reports** as required by other Sections. Testing laboratory shall promptly submit to CONTRACTOR results of testing and inspections. CONTRACTOR shall submit results to ENGINEER within 1 day of receipt from testing laboratory. Test report shall include, at a minimum:
   a. Date issued.
   b. Project title, number, and name of the Site.
   c. Testing laboratory name and address.
d. Name and signature of inspector or person obtaining samples.
e. Date of inspection or sampling.
f. Record of temperature and weather conditions.
g. Date of test.
h. Identification of material or item tested, and associated Specifications Section.
i. Location in the Project.
j. Type of inspection or test.
k. Results of tests and observations regarding compliance with this section and supplementary sections, as applicable.
l. Category B deliverables for the reporting of deliverables package as per Volume 1 of the NYSDEC ASP.
m. Electronic deliverables shall conform to DER-10, Appendix 2B requirements.

1.5 TESTING LABORATORY DUTIES

A. Testing laboratory shall:
1. Complete analytical services in compliance with NYSDOH ELAP certification, NYSDEC ASP Protocol, and/or GRI Standard Specifications.
2. Perform required inspections, sampling, and testing of materials and methods of construction; comply with applicable reference standards and the Contract Documents; and ascertain compliance with requirements of the Contract Documents.
3. Promptly notify ENGINEER and CONTRACTOR of irregularities or deficiencies in the Work that are observed during performance of services.
4. Promptly submit to CONTRACTOR reports of inspections and tests.
5. Perform additional tests and services, as required by CONTRACTOR.
6. Data deliverables shall conform to Guidance for Data Deliverables, DER-10 Appendix 2-B.

1.6 CONTRACTOR’S RESPONSIBILITIES

A. CONTRACTOR shall:
1. Cooperate with testing laboratory personnel.
2. Provide to testing laboratory preliminary representative samples of materials and items to be tested, in required quantities.
3. Collect samples as specified in the Supplementary Specifications. The Contractor shall provide a minimum 24-hour notice to the Engineer prior to sampling. Sampling and analytical methods and procedures for sampling shall be in accordance with the approved sampling plan and QAPP.
4. Promptly submit to ENGINEER results of tests and inspections received from testing laboratory.
5. Furnish to laboratory the preliminary design mix proposed for concrete and other material mixes to be tested by testing laboratory.
6. Provide labor and facilities:
a. For access to the Work to be tested, and where required, to Suppliers’ operations.
b. For obtaining and handling samples at the Site.
c. For facilitating inspections and tests.
d. For testing laboratory’s exclusive use for storing and curing of test samples.
e. Forms for preparing concrete test beams and cylinders.

7. Notify laboratory and ENGINEER sufficiently in advance of operations to allow assignment of personnel and scheduling of tests.

8. Arrange with laboratory and pay for additional services, sampling, and testing required for CONTRACTOR’s convenience.

9. Confirm that analytical data deliverables conform to DER-10, Appendix 2B prior to submittal to the ENGINEER for review.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

++ END OF SECTION ++
PART 1 – GENERAL

1.1 DESCRIPTION

A. Scope:
1. CONTRACTOR shall provide all temporary utilities and temporary facilities required for the Project, including the following:
   a. Electricity.
   b. Lighting.
   c. Telephone and communications.
   d. Heating, cooling, ventilating, and temporary enclosures.
   e. Water.
   f. Fire protection.
2. Make all arrangements with utility owners for temporary utilities and with others as appropriate for temporary facilities. Obtain required permits and approvals for temporary utilities and temporary facilities.
3. Pay all service costs for utilities and facilities indicated in this Section as CONTRACTOR’s responsibility, including cost of electricity, water, fuel, and other utility services and temporary facilities required for the Work.
4. At minimum, provide and maintain temporary utilities and temporary facilities through Substantial Completion unless otherwise approved in writing by ENGINEER.
5. Maintain, including cleaning, temporary utilities and temporary facilities, and continuously provide consumables (i.e. potable water, soap, paper towels, toilet paper, etc.) as required.
6. Temporary utilities and temporary facilities shall be adequate for personnel using the Site and the needs of the Project.
7. Provide temporary utilities and temporary facilities in compliance with Laws and Regulations and, when applicable, requirements of utility owners.

1.2 SUMITTALS

A. Informational Submittals:
1. Work Plan
   a. As required by Section X Standard Specifications: Section 01 33 00 – Submittal Procedures
   b. Prepare a Temporary Utility and Temporary Facilities Plan to include as a component of the Work Plan. The Temporary Utility and Temporary Facilities Plan shall include at a minimum:
      1) Written plan for temporary electrical, communication, and water (construction and potable) service
2) Written plan for fire protection service and materials
3) Approved service request and work orders
4) Description of materials and procedures to be used for temporary connections
5) Description of lighting plan and materials
6) Description of heating, cooling, ventilating, and enclosures for temporary facilities
7) Locations for temporary utility connections and temporary facilities, including the staging areas, temporary dewatering pad, decontamination pad, decontamination trailer, personal hygiene facility, office trailers, sanitary facilities, personal vehicle parking areas, construction equipment parking areas, and Engineer’s office
8) Locations of the temporary fencing and materials
9) Pollution, traffic, and rubbish control measures
10) Protection of natural resources measures
11) Noise, vibration, and dust control measures

2. Shop Drawings
   a. Submit Shop Drawings for temporary utility connections and temporary facilities, including the staging areas, temporary dewatering pad, decontamination pad, decontamination trailer, personal hygiene facility, office trailers, sanitary facilities, personal vehicle parking areas, construction equipment parking areas, and Engineer’s office
   b. Submit Shop Drawings at least 20 days prior to starting Work associated with the drawings.

3. Product Data
   a. Temporary utility connection materials
   b. Temporary staging area materials
   c. Submit Product Data at least 20 days prior to starting Work associated with the products.

1.3 REQUIREMENTS FOR TEMPORARY UTILITIES AND TEMPORARY FACILITIES

A. Electrical:
   1. Provide temporary electrical service required for the Work, including continuous power for temporary field offices and sheds. Provide temporary outlets with circuit breaker protection and ground fault protection. Where possible for low power system demands, provide electrical service with solar power pack systems.
   2. Provide written plan for electrical service including; approved service requests and work orders; as applicable
   3. Provide materials that comply with applicable NEMA, NECA, and UL standards and governing regulations of temporary electrical services.
4. Provide grounded extension cords with waterproof connectors. Use "hard service" cords where there is exposure to abrasion and traffic.
5. Provide general service lamps and guard cages or tempered glass enclosures where lamp is exposed to breakage by removal operations. Use liquid-tight enclosures or boxes for the devices.
6. The CONTRACTOR shall provide a weatherproof, grounded temporary electrical power service and distribution system of sufficient size, capacity, and power characteristics to accommodate performance of the work.
7. Install overload protection and disconnect switches for each temporary circuit at the power source.
8. Install all cable or extension cords in the work area in such a manner that visual surveillance is easily accomplished.

B. Lighting.
1. Provide lighting at the Site of not less than five foot-candles for open areas and not less than ten foot-candles for stairs and shops. Provide not less than one, 300-watt lamp every 15 feet in indoor work areas. Provide night security lighting of areas near public roadways with not less than five foot-candles within 50 feet of all parts of the Site during hours of darkness, controlled by photocell.
2. Do not work in areas with insufficient lighting. Where lighting is insufficient for the work activities to be performed, provide additional temporary lighting.
3. Provide temporary lighting sufficient for observation of the Work by ENGINEER and inspection by CONTRACTOR and authorities having jurisdiction. Where required by ENGINEER, provide additional temporary lighting.
4. Provide temporary lighting for ENGINEER’s field office in accordance with Section X Standard Specifications: Section 01 52 11 – Engineer’s Field Office.

C. Telephone and Communications.
1. Provide temporary telephone and communications required for CONTRACTOR’s operations at the Site and for summoning emergency medical assistance.
2. Provide temporary telephone and communications for ENGINEER’s field office in accordance with Section X Standard Specifications: Section 01 52 11 – Engineer’s Field Office.

D. Heating, Ventilating, and Enclosures.
1. Provide sufficient temporary heating, cooling, ventilating, and enclosures to ensure safe working conditions and prevent damage to existing facilities and the Work.
2. Maintain temperature of areas occupied by DEPARTMENT’s personnel or electronic equipment, including offices, lunch rooms, locker rooms, toilet rooms, and rooms containing computers, microprocessors, and control equipment, between 65 degrees F and 80 degrees F with relative humidity less than 75 percent.
4. Required temperature range for storage areas and certain elements of the Work, including preparation of materials and surfaces, installation or application, and curing as applicable, shall be in accordance with the supplementary conditions for the associated Work and/or the Supplier’s recommended temperature range for storage, application, or installation, as appropriate.

5. Provide temporary ventilation sufficient to prevent accumulation in construction areas and areas occupied by DEPARTMENT of hazardous and nuisance levels or concentrations of dust and particulates, mist, fumes or vapors, odors, and gases, associated with construction.

6. Provide temporary enclosures and partitions required to maintain required temperature and humidity.

7. Provide temporary heating, ventilating, and cooling for ENGINEER’s field office in accordance with Section X Standard Specifications: Section 01 52 11 – Engineer’s Field Office.

E. Water:

1. General:
   a. Provide temporary water facilities including piping, valves, meters if not provided by DEPARTMENT of existing waterline, backflow preventers, pressure regulators, and other appurtenances. Provide freeze-protection as required.
   b. Continuously maintain adequate water flow and pressure for all purposes during the Project, until removal of temporary water systems.
   c. Where possible, utilize rainwater or treated process water instead of domestic water for tasks such as washing, irrigation, dust control, and other appropriate purposes.

2. Water for Construction Purposes:
   a. Provide water for Site maintenance and cleaning, and water necessary for construction activities, and water for disinfecting and testing of systems.
   b. CONTRACTOR may use existing hose bibbs for short-term wash-downs and intermittent use of water for work areas in the existing building. Obtain consent of ENGINEER and DEPARTMENT if connections to existing hose bibbs and similar existing connections will be used for more than one day at a time.

3. Water for Human Consumption and Sanitation:
   a. Provide potable water in accordance with NYSDOH Laws and Regulations for consumption by personnel at the Site, for field offices, and for sanitary facilities.
   b. When necessary, provide bottled, potable water for use and consumption by personnel at the Site, including CONTRACTOR, ENGINEER, and visitors to the Site.
   c. Provide temporary water for ENGINEER’s field office in accordance with Section X Standard Specifications: Section 01 52 11 – Engineer’s Field Office.
   d. Provide separate sanitary facilities for males and females.
F. Fire Protection.
1. Provide temporary fire protection, including portable fire extinguishers rated not less than 2A or 5B in accordance with NFPA 10, Portable Fire Extinguishers, for each temporary building and for every 3,000 square feet of floor area under construction.
2. Provide Class A (ordinary combustibles), Class B (combustible liquids and gases), and Class C (electrical equipment) fire extinguishers as necessary.
3. Comply with NFPA 241, Standard for Safeguarding Construction, Alteration, and Demolition Operations, and requirements of fire marshals and authorities having jurisdiction at the Site.
4. Provide temporary fire protection for ENGINEER’s field office in accordance with Section X Standard Specifications: Section 01 52 11 – Engineer’s Field Office.

G. Temporary Staging Areas:
1. Staging areas (if required) shall be located on the site in areas (exclusion zone) approved by the ENGINEER in order to minimize possible cross contamination.
2. The staging areas for waste materials shall have a working base and lined bottom with a minimum 40-mil sealed HDPE watertight liner, Stabilization Geotextile, and a 1 foot layer of Type 1 Subbase Course or approve equal. The CONTRACTOR shall remove the liners and subbase when the staging areas are no longer needed and dispose off-site per Section XI Supplementary Specifications: Section 02 81 00 – Offsite Transportation and Disposal.
3. Waste materials shall be covered at all times with a minimum 6-mil poly liner sealed, watertight liner to prevent contaminated runoff. Remove the liners when the staging area is no longer needed and dispose off-site.
4. All staging areas shall be constructed to prevent the spread of any contamination to the surrounding soils, surfaces, and/or groundwater.
5. Water spray or equivalent shall be utilized as necessary to prevent dust generation. Monitoring shall be provided to ensure that unacceptable levels of dust generated from the movement and handling of soil do not migrate from the site.
6. Shop Drawings of all staging areas shall be submitted by the CONTRACTOR to the ENGINEER for review and approval prior to the start of work.
7. The CONTRACTOR shall decontaminate staging areas on concrete pads as directed by the ENGINEER.
8. Clean soil staging areas: Can be located outside the exclusion zone over non-remedial areas, as applicable, erosion controls shall be maintained at the perimeter of piles. Long-term storage of piles may require additional stabilization measures, as directed by the ENGINEER or required in the supplementary conditions.
9. Materials staging areas: provide and maintain material staging areas as needed in locations indicated on the CONTRACTOR’s work site layout, or as approved by the ENGINEER.
H. Decontamination Trailer and Personal Hygiene Facility:
   1. A separate trailer for personnel decontamination shall be provided. The equipment and fixtures specified below shall be provided:
      a. Shower facilities with at least one shower for every six on-site personnel. Separate showers shall be provided for men and women.
      b. Locker room with one locker for each employee.
      c. A room where all personnel safety equipment and protective clothing can be stored.
      d. Laundry area equipped with automatic washing and drying machines or sub-contract laundering to a service firm approved by the ENGINEER.
      e. Boot rack for washed boots to drain.
      f. Toilet facilities in accordance with OSHA and local health organizations.
      g. Sanitary waste holding tank and piping from the decontamination facility and site offices.
   2. All equipment and fixtures shall be maintained in clean condition. No storage of any equipment will be allowed in the decontamination trailer. The installation shall be in accordance with the HASP.
   3. Shop drawing of the trailer and facilities shall be submitted by the CONTRACTOR to the ENGINEER for review and approval.

I. Temporary (Work Zone) Fencing:
   1. Work Zone Fencing, unless otherwise detailed in the supplementary conditions, provide a temporary, secure 4-foot high, high strength polyethylene orange plastic fence around the operations and work areas to control access. Fence posts shall be a minimum of 5-feet in total length and shall adequately support the fence and prevent leaning. Fence posts shall be set a maximum 10 feet apart.
   2. Perimeter Fencing, unless otherwise detailed in the supplementary conditions, shall consist of temporary or driven post fence panels a minimum of 6-feet in height. Privacy screening shall be provided

J. Water Control:

K. Pollution Control:
   1. Maintain work areas on and off site free from further environmental pollution that would be in violation of any federal, state, or local regulations.
   2. Minimize air pollution by wetting down bare soils with clean water, requiring use of properly operating combustion emission control devices on construction vehicles and equipment used by CONTRACTORS, and encouraging shutdown of motorized equipment not actually in use.
   3. Any emissions during site activities that may have an adverse health effect on workers or the community shall be suppressed to the extent possible.
   4. Chemicals used, whether herbicide, pesticide, disinfectant, polymer, reactant, or other classification, must be approved by either the DEPARTMENT or any...
other applicable regulatory agency and the ENGINEER and be used in a manner as their original purpose was intended.

5. Use of such chemicals and disposal of residues shall be in conformance with manufacturers' instructions.

6. Use of chemicals must be approved in advance by the ENGINEER.

7. Disposal of volatile fluid wastes (such as mineral spirits, oil, or paint thinner) in storm or sanitary sewer system or into streams or waterways is not permitted.

8. Volatile wastes generated will be handled as hazardous wastes and reported to NYSDEC.

9. The CONTRACTOR shall provide that the generated project hazardous waste (if any) and any existing hazard waste to be removed under this project shall be transported, manifested, and disposed in accordance with the current regulations.

10. More specific requirements are given in other sections of this document.

L. Traffic Control:
   1. The CONTRACTOR shall maintain all on-site temporary roads necessary for performance of the Work. Temporary access roads will be repaired as necessary to insure unimpeded daily operations. This may include at a minimum, routine grading and repairs to areas subject to settling resulting from site-related traffic.
   2. Park vehicles in areas designated and approved in the Work Plan.
   3. Keep the designated parking areas clear of dirt and debris resulting from the work.

M. Rubbish Control (Noncontaminated)
   1. Clean up the debris resulting from the work at the end of each day and leave work areas broom clean. Locate containers where directed.
   2. Remove debris from the site at least once a week or more often if it presents a fire hazard or becomes excessive. Burning of waste material will not be permitted.
   3. Containers shall have secure tops.

N. Protection of Natural Resources:
   1. General:
      a. Preserve the natural resources within the project site that are not specified for removal or change or in accordance with supplementary permit conditions.
      b. Preserve the natural resources outside the project site impacted by the work.
      c. Conform to federal, state and local permitting requirements.
      d. Restore disturbed resources to an equivalent or improved condition upon completion of work.
e. Vehicles, equipment and machinery delivered or used at the site that have visible oil or hydraulic leaks will not be allowed on site. Clean up any oil or hydraulic fluid spills immediately.

2. Land Resources:
   a. Except in areas specified to be cleared, do not remove, cut, deface, injure, or destroy existing vegetation.
   b. Protect vegetation that is to remain, from damage by construction operations.
   c. Vegetation intended to remain that is scarred or damaged by construction operations shall be removed and replaced with equivalent undamaged vegetation.
   d. Removal of scarred or damaged vegetation shall be in accordance with the specifications.
   e. Trees or shrubs with 30 percent or more of their root systems damaged shall require removal and replacement.
   f. Replacement vegetation shall be approved by the ENGINEER before replacement.

3. Water Resources:
   a. Prevent oily or hazardous substances from entering the ground, drainage areas, or local bodies of water.
   b. Provide secondary containment of temporary fuel oil, petroleum, or hazardous substance storage tanks of sufficient size and strength to contain the contents of the tanks.

4. Fish and Wildlife Resources:
   a. Do not alter or significantly disturb water flows on or adjacent to the project site, except as indicated or specified.
   b. Do not alter or significantly disturb native habitat on or adjacent to the project site, except as indicated or specified.
   c. Conformance with supplementary permit conditions, as applicable.

O. Noise, Vibration and Dust Control:
   1. Conduct operations in compliance with applicable local noise ordinance.
   2. Dust shall be controlled in compliance with approved CONTRACTOR’s Vapor Control Emissions Plan, Community Health and Safety Plan, and Site-Specific Health and Safety Plan (SSHASP), or otherwise directed by the DEPARTMENT.
   3. Equip compressors, hoists, and other apparatus with such mechanical devices as may be necessary to minimize noise, vibration and dust. Equip compressors with silencers on intake lines.
   4. Equip gasoline or oil-operated equipment with silencers or mufflers on intake and exhaust lines.
   5. Provide unpaved roads, detours, or haul roads used in construction areas with water treatment to minimize dust. No visible dust, as determined by the ENGINEER, will be permitted beyond the limits of the exclusion zone.
   6. CONTRACTOR is responsible for providing all sound barriers needed to meet the requirements of these specifications. CONTRACTOR is responsible for all
costs related to the manufacturer’s representatives or consultants (contractors) who specialize in addressing such problems.

7. Control noise levels associated with site operations in accordance with local noise ordinances.


9. Measurements shall be made at site perimeter.

10. Measurements shall be continuous during the first week of construction activities. Additional measurements may be directed by the ENGINEER throughout the course of the project.

11. Measurements shall be documented and reported to the ENGINEER.

12. If the Leq levels are not maintained the CONTRACTOR shall take appropriate measures to bring the noise under control at no additional cost to the DEPARTMENT.

13. Comply with DER-10, Appendix 1A.

PART 2 – PRODUCTS

2.1 MATERIALS AND EQUIPMENT

A. Materials and equipment for temporary utilities and temporary facilities may be new or used but shall be adequate for purposes intended and shall not create unsafe conditions and shall comply with Laws and Regulations.

B. Provide required materials, equipment, and facilities, including piping, cabling, controls, and appurtenances in good working condition and in line with industry standards.

C. Temporary Staging Area Materials

1. 40-Mil. HPDE Geomembrane
   a. 40 Mil. HDPE Geomembrane shall meet the specifications of NYSDOT Standard Specifications 737.0201.

2. Stabilization Geotextile
   a. As specified in Section XI Supplementary Specifications: Section 31 05 19 – Geotextiles

3. Type I Subbase Course
   a. Shall meet requirements of NYSDOT Standard Specifications 733.0401.

PART 3 – EXECUTION

3.1 INSTALLATION

A. Install temporary utilities and temporary facilities in neat, orderly, manner, and make structurally, mechanically, and electrically sound throughout.
B. Location of Temporary Utilities and Temporary Facilities:
   1. Locate temporary systems for proper function and service.
   2. Temporary systems shall not interfere with or provide hazards or nuisances to:
      the Work under this and other contracts, movement of personnel, traffic areas,
      materials handling, hoisting systems, storage areas, finishes, and work of utility
      DEPARTMENTs and others.
   3. Do not install temporary utilities on the ground, with the exception of
      temporary extension cords, hoses, and similar systems in place for short
      durations.

C. Modify and extend temporary systems as required by progress of the Work.

3.2 USE

A. Maintain temporary systems to provide safe, continuous service as required.

B. Properly supervise operation of temporary systems:
   1. Enforce compliance with Laws and Regulations.
   2. Enforce safe practices.
   3. Prevent abuse of services.
   4. Prevent nuisances and hazards caused by temporary systems and their use.
   5. Prevent damage to finishes.
   6. Ensure that temporary systems and equipment do not interrupt continuous
      progress of construction.

C. At end of each work day check temporary systems and verify that sufficient
   consumables are available to maintain operation until work is resumed at the Site.
   Provide additional consumables if the supply on hand is insufficient.

3.3 REMOVAL

A. Completely remove temporary utilities, temporary facilities, equipment, and
   materials when no longer required. Repair damage caused by temporary systems and
   their removal and restore the Site to condition required by the Contract Documents;
   if restoration of damaged areas is not specified, restore to preconstruction condition.

B. Where temporary utilities are disconnected from existing utility, provide suitable,
   watertight or gastight (as applicable) cap or blind flange, as applicable, on service
   line, in accordance with requirements of utility owner.

C. Where permanent utilities and systems were used for temporary utilities, upon
   Substantial Completion replace all consumables such as filters and light bulbs and
   parts used during the Work.

++ END OF SECTION ++
PART 1 – GENERAL

1.1 DESCRIPTION

A. Scope:
   1. This Section includes requirements for CONTRACTOR-provided field office(s), with furnishings, equipment, and consumables, for use by ENGINEER.
   2. CONTRACTOR shall provide and maintain field office(s) for ENGINEER’s sole use in areas adjacent to active Work areas. CONTRACTOR shall provide a field office near Area 1 work and a separate field office near Area 2. Provide field office(s) at location approved by ENGINEER, near CONTRACTOR’s field office(s).
   3. Field office(s) shall be complete and fully functional within 10 days after date on which the Contract Times commence or ENGINEER approved mobilization date, unless the schedule is otherwise modified in accordance with Section VIII General Conditions.
   4. Obtain required permits for field offices, as applicable.

1.2 SUBMITTALS

A. Action Submittals: Submit at least 20 days prior to Work associated with this Section and obtain ENGINEER’s approval of the following prior to staging field office to the Site:
   1. Field Office(s) Shop Drawings: Submit the following under one submittal cover:
      a. Site plan indicating proposed location of field office(s), parking for field office(s), facilities related to the field office(s), and material of both field office(s) parking and sidewalk or walkway to field office(s).
      b. Information on proposed field office size, construction, exterior appearance, interior finishes, and field office security measures.
      c. Proposed layout of field office interior, showing location of offices, common areas, restroom, closet, other areas specified (if any), with dimensions indicated for each.
      d. Proposed layout of field office exterior identifying sign, showing all text, font, colors, and graphics (if any).
      e. Proposed type of Internet service; name of proposed Internet service provider; and product data and technical information on equipment (if any) required for Internet service.
      f. Office Equipment: Product data and technical information for copier, telephones, and other office equipment.
PART 2 – PRODUCTS

2.1 FIELD OFFICE CONSTRUCTION AND SITE REQUIREMENTS

A. Site at Field Office:
   1. Allocate total of four reserved parking spaces for use by ENGINEER and DEPARTMENT in close proximity to ENGINEER’s field office. Parking area shall be paved with bituminous paving, concrete, crushed stone, or other material approved by ENGINEER. Parking area shall be suitably drained and free of standing water during wet weather.
   2. Provide sidewalk or walkway, not less than four feet wide, of bituminous pavement, concrete, crushed stone, or other material approved by ENGINEER, for the full distance between parking area and the field office(s).

B. Field Office, Minimum Construction: Field office shall comply with the following:
   1. Structurally sound foundation and superstructure.
   2. Size: Floor area of not less than 430 square feet, and not less than 10 feet wide.
   3. Completely weather-tight and insulated, with minimum R-19 insulation.
   4. Exterior finish approved by ENGINEER.
   5. New interior finishes approved by ENGINEER, including resilient floor covering in good condition.
   6. Field Office Ingress and Egress:
      a. Two doors for ingress and egress for each field office unit, each with landing, stairs, and railing complying with building codes and other Laws and Regulations in effect at the Site.
      b. Landing and stairs shall have slip-resistant walking surfaces, and be metal, pressure-treated wood, fiberglass, or concrete.
      c. Railing shall be metal, wood, or fiberglass.
      d. Door Security:
         1) Doors shall be secure and lockable.
         2) Furnish each door with suitable, lockable security bar. Security bar shall be Master Lock 265DCCSEN Dual-Function Security Bar, or equal.
   7. Windows:
      a. Window area equal to not less than ten percent of floor area.
      b. Windows shall each have insect screen and operable sash.
      c. Provide each window with lock and exterior security bars approved by ENGINEER.
   8. One lockable closet for storage.
   9. Keys:
      a. Furnish to ENGINEER two identical sets of keys suitable for operating all keyed locks, including ingress/egress door locks, security bars for doors, window locks, closets, and office furnishings.
      b. Permanently label each key to indicate its associated lock.
10. Restroom:
   a. Provide in field office one private restroom including one lavatory, one
      toilet, medicine cabinet with mirror, soap dispenser, and paper towel
      holder.
   b. Provide each restroom with appropriate electric ventilation fan with
      positive discharge to location outside the field office.
   c. Portable units and hand washing stations may be provided, as equivalent,
      as approved by the ENGINEER.

11. Exterior Sign:
   a. Field office identifying exterior sign, approved by ENGINEER. Sign
      shall be durable, weatherproof, suitable for long-term exposure to
      sunlight.
   b. Exterior sign shall be not less than 1.5 feet high by four feet wide,
      installed at location determined in field and acceptable to ENGINEER.
   c. Sign shall be in color, as presented in the layout below.
   d. Sign layout and general proportions shall be as presented below. Text of
      first line and last line shall be Arial. Text size and size of graphic shall
      be proportionate to the graphic below. ENGINEER will furnish graphic
      as JPG file for use by CONTRACTOR in preparing the sign.

C. Field Office Optional Construction:
   1. Provide mobile office trailer in first-class condition approved by ENGINEER,
      specifically designed for use as construction field office and complying with
      requirements of this Section.
   2. Provide skirting around perimeter of each mobile field office trailer.
   3. Supplier: Provide field office by one of the following:
      a. Pac-Van, Inc.
      b. Modular Space Corporation (ModSpace).
      c. Williams Scotsman, Inc.
      d. Or equal.

2.2 FIELD OFFICE UTILITIES

A. Comply with Section X Standard Specifications: Section 01 51 05 – Temporary
   Utilities and Controls.

B. Provide the following for the ENGINEER’s field office:
   1. Electrical System and Lighting:
      a. Electric service as required, including paying all costs. Provide electrical
         submeter if electrical service is obtained from DEPARTMENT’s system.
      b. Interior lighting of not less than 50 foot-candles at desktop height.
      c. Minimum of eight 120-volt, wall-mounted, duplex convenience electrical
         receptacles.
      d. Exterior, wall-mounted lighting at each entrance to field office, not less
         than 250 watts each.
e. Exterior security light for ENGINEER’s field office parking area. Provide one 1000-watt, pole-mounted fixture with photocell control.

2. Heating, Ventilating, and Air Conditioning System:
   a. Provide automatic heating to maintain indoor temperature in field office of not less than 65 degrees F in cold weather. Furnish all fuel and pay all utility costs.
   b. Automatic cooling to maintain indoor temperature in field office of not warmer than 75 degrees F in warm weather.

3. Water and Sewerage:
   a. Provide potable water service for each plumbing fixture associated with field office.
   b. Provide sanitary sewerage for each lavatory/sink and toilet.
   c. Utility Connections – General:
      1) Comply with Laws and Regulations, including plumbing and sewer codes, and requirements of authorities having jurisdiction.
      2) Protect plumbing from freezing.
   d. Potable Water Service: Provide the following:
      1) Type K copper waterline from potable water main to each plumbing fixture.
      2) Reduced pressure zone (RPZ)-type backflow preventer in accordance with Laws and Regulations and requirements of authorities having jurisdiction.
      3) Provide 15-gallon electric hot water tank or tankless hot water heater, and hot water piping to serve each lavatory/sink in field office.
      4) Not less than one exterior hose bib, with not less than 50 feet of hose, located adjacent to field office sidewalk or walkway, near field office ingress/egress doors. Provide wall-mounted hose reel or hose caddy.
      5) Before placing potable water system into service, disinfect piping and appurtenances in accordance with Laws and Regulations.
   d. Sanitary Sewerage:
      1) Provide PVC or other appropriate piping, arranged in accordance with Laws and Regulations, to convey wastewater from field office to sanitary sewer that discharges to a permitted wastewater treatment facility, or to holding tank provided by CONTRACTOR.
      2) When holding tank is provided, also provide pumping and disposal of holding tank contents at appropriate, regular intervals.

4. Telephone Service:
   a. Land Lines:
      1) Private telephone service for ENGINEER’s sole use, including payment of installation, monthly, and service costs.
      2) Provide two telephone lines as follows: one for phone Each line shall have separate telephone number assigned by the telephone service provider.
      3) Pay for unlimited local and domestic long distance service for duration of the Project.
4) As approved by the ENGINEER, mobile devices may replace Land Service Lines. Portable Bluetooth conferencing capabilities shall be provided to facilitate group conferencing.

b. Cellular Telephones and Service: ENGINEER will provide cellular telephones and service for ENGINEER’s employees assigned to the field office, as approved by the ENGINEER, may substitute land lines. Portable Bluetooth conferencing capabilities shall be furnished to the CONTRACTOR to facilitate

5. Internet Access:
   a. Obtain and pay for Internet service until removal of the field office, with unlimited (untimed) Internet access, for ENGINEER’s sole use.
   b. Set up system and appurtenances required and verify functionality in the field office.
   c. Internet service shall be one of the following, listed in order of preference; provide a lower type of access only when the next-higher level is unavailable:
      1) Fiber-optic or Cable Provider Service:
         a) Provide service via communication service provider via either cable or fiber-optic service at download speed of not less than 15 megabytes per second (Mbps) and upload speed of not less than 1 Mbps.
         b) Provide appropriate modem, cabling, and appurtenances.
      2) DSL:
         a) Provide service via symmetrical digital subscriber line with download speed of not less than 1.5 Mbps and upload speed of not less than 384 kilobits per second (Kbps).
         b) Provide dedicated telephone line for Internet access.
         c) Provide DSL filters on each non-DSL outlet in the field office telephone system.
      3) Mobile Broadband Wireless:
         a) Provide mobile broadband wireless 4G network by AT&T, Verizon, Sprint, T-Mobile, or equal, with download speed of not less than 37 Mbps and upload speed of not less than 17 Mbps.
         a) Provide mobile broadband wireless router. Product and Manufacturer: Linksys Wireless-G Router for Mobile Broadband, or equal.
         b) Mobile broadband air-card for field office. Product and Manufacturer: Sierra Wireless 597E, Novatel Merlin EX720, or equal.
         c) Router and air-card will remain CONTRACTOR’s property upon removal of field office from the Site.
   4) Satellite:
      a) Provide 4G network service with download speed of not less than 12 Mbps.
b) Provide required equipment, including outdoor unit (dish) and indoor satellite modem equipment, together with required cabling.

c) Provide telephone modem in computer, together with telephone line and service, for file uploading.

C. Should actions of utility companies delay the complete setup of field office, CONTRACTOR shall provide temporary electricity, heat, water supply, sanitary facilities, and telephone service as required at no additional cost to DEPARTMENT.

2.3 FURNISHINGS AND EQUIPMENT

A. Provide the following furnishings and equipment:

1. Desks: Two 5-drawer desks, each with desktop surface five feet long by 2.5 feet wide with not less than one file drawer per desk, suitable for storing 8.5-inch by 11-inch documents.

2. Desk Chairs: Two new or used (in good condition) five-point, high backed, cushioned swivel chairs with seat-height adjustment.

3. Other Chairs: Four side chairs with arm rests and padded seats and backs, and eight metal folding chairs without arm rests.

4. Two new or used (in good condition) folding tables each eight feet long by 2.5 feet wide.

5. Two new or used (in good condition) folding tables each four feet long by 2.5 feet wide.

6. Plan rack(s) to hold not less than eight sets of the Drawings.

7. Two 4-drawer file cabinets.

8. One 2-door storage cabinet.

9. Shelving or bookcase with a total of 12 feet of shelf length and not less than 12 inches deep.

10. Four polyethylene waste baskets, each with capacity of not less than seven gallons.

11. Suitable doormat at each exterior ingress/egress door.

12. Two cork tack-boards, each 2.5 feet by three feet, with thumbtacks.

13. One white board for use with dry markers, approximately six feet by four feet, with marker holding tray, installed by CONTRACTOR at location directed by ENGINEER in the field office. Furnish supply of colored markers and eraser for the white board.

14. Safety Equipment: Provide the following:

   a. Fire extinguishers with associated signage.
   
   b. Smoke detector with supply of batteries.
   
   c. Carbon monoxide detector with power supply.
   
   d. Provide in accordance with Laws and Regulations. For each field office structure, provide not less than two wall-mounted fire extinguishers, one battery-operated ceiling-mounted smoke detector, and one carbon monoxide detector suitably installed.
15. First-Aid Station:
   a. In addition to first-aid stations otherwise required by the Contract Documents, provide for ENGINEER’s sole use a first-aid station in ENGINEER’s field office.
   b. Product and Manufacturer: Zee Medical USA, Item 0152, “Medium Four-Shelf Plastic Cabinet”, www.zeeomedical.com; or equal.

16. Weather Monitoring Station:
   b. Manufacturer and Product:
      1) Weather Monitoring Station: Provide Peet Bros. ULTIMETER 100; or equal.
      2) Rain Gauge: Provide Peet Bros. ULTIMETER PRO Rain Gauge, or equal.
   c. Sensors:
      1) Cable-mounted sensors installed outdoors. Wireless systems are unacceptable.
      2) Vane-type wind sensor equipped with 40-foot cable, accurate to wind speeds as low as 1.5 mph.
      3) Temperature sensor, installed in the shade, equipped with 25-foot cable.
      4) Provide rain gauge for monitoring rainfall/precipitation, with 40-foot cable. Rain gauge shall be suitable for use in winter weather and accurate to 0.01-inch.
      5) Sensors and cabling shall be compatible with the weather monitoring recording/display unit.
      6) Install sensors at appropriate locations, agreed upon at the Site with ENGINEER, for optimal monitoring of weather. Provide required poles and mounting brackets as required for installation of sensors.
   d. Recording/Display Unit: Unit shall have keyboard and data display, featuring maximums and minimums of all data monitored, displayed and stored in-unit for the following periods: current day, each of the previous seven days, and long-term. Display and record time and date for each recorded maximum and minimum. Individually-resettable memories and master-reset capability to clear all memory.
   e. Appurtenances:
      1) Provide data logging capability to allow data to be transmitted to and displayed on personal computer in ENGINEER’s field office. Provide data relay capability to transmit data to such computer.
      2) Provide required appurtenances including junction boxes, 120-volt power supply with transformer, all required cords and cabling, and mounting brackets and hardware.
   f. Provide all items and Work necessary for a fully-operational unit with properly-functioning capability as specified.

17. Personal Protective Equipment for Visitors: Furnish the following:
a. Protective Helmets (Hard Hats): Four, each with full brim, of fiberglass or thermoplastic; each with ratchet suspension; white in color.
b. Safety Glasses: Four, each with clear lenses, polycarbonate, anti-fog and anti-scratch coating, suitable to fit over personal eyewear.
c. Reflective Safety Vest: Four, each of polyester mesh or other material acceptable to ENGINEER, color to be high-visibility orange, with one-inch-wide reflective tape, one-size-fits-all design.
d. Earplugs: Supply of foam, disposable earplugs. Promptly resupply when stock is depleted.

18. Two electric clocks.
19. One electric coffee maker, with ten-cup capacity or larger.
20. Bottled water with electric cooler dispenser for five-gallon bottles, with cup dispenser.
21. Telephone System:
   a. Telephone System Features:
      1) Provide one cordless telephone with hands-free speaker.
      2) Telephone shall have speed dialing with minimum of 20 programmable numbers, volume control, mute, redial, and hold button.
   b. Provide one digital telephone answering machine.
22. Multi-function Copier:
   a. One new or used (in good condition) machine with the following functions: photocopying, network printing, scanning to produce PDF and JPG files, and e-mail.
   b. Products and Manufacturers: Provide one of the following:
      1) Xerox WorkCentre 5845.
      2) Or equal.
   c. Minimum Memory: 2 GB.
   d. Ten-bin sort capacity, 8.5-inch by 11-inch, 8.5-inch by 14-inch, and 11-inch by 17-inch paper capacity, enlarging and reducing capabilities, stream-feed capability, bypass feeder, stapling capability, and double-sided copying capability. Copier shall produce not less than 40 copies per minute.
   e. Provide necessary cables and appurtenances to enable all functions specified in this Section, including scan-and-email and printing from field office computers. Furnish services of manufacturer’s representative to set up and service copier.
23. Kitchen Area Appliances: Provide the following in the field office kitchen area:
   a. One new, frost-free, refrigerator-freezer, with capacity of not less than six cubic feet.
   b. One new microwave oven, not less than 1.2 cubic foot size.
   c. Kitchen area appliances will remain property of CONTRACTOR upon removal of field office."
PART 3 – EXECUTION

3.1 INSTALLATION

A. Install field office and related facilities in accordance with Laws and Regulations.

B. Install materials and equipment, including prefabricated structures, in accordance with manufacturer’s instructions, and to provide optimal performance and accuracy.

3.2 CLEANING, MAINTENANCE, AND SUPPLIES

A. Furnish the following maintenance services:
   1. Immediately repair malfunctioning, damaged, leaking, or defective field office structure, site improvements, systems, and equipment.
   2. Provide computer supplies and pay for maintenance on CONTRACTOR-furnished computer system and copier.
   3. Promptly provide snow and ice removal for ENGINEER’s field office, including parking area, walkways, and stairs and landings.
   4. Provide continuous maintenance and janitorial service of field office and sanitary facilities. Clean field office not less than once per week. Sweep or vacuum field office not less than daily, or more-frequently when site conditions are such that dirt or mud is frequently tracked into field office. Clean and wax (as appropriate) flooring every six months.
   5. Waste Disposal:
      a. Properly dispose of trash and waste as needed, not less than twice per week.
      b. Properly handle and dispose of recyclables. Do not dispose of recyclables as trash.
      c. Dispose of other waste, if any, as required, to avoid creation of nuisances and adverse environmental effects. Properly dispose of electronic waste, when necessary, at proper waste receiving facility.

B. Consumables: Provide the following consumables as needed:
   1. Toner and ink cartridges for printers and copier, as required.
   2. Paper supplies for printer and copier. Always maintain in field office not less than one ream of each size of paper for which printer and copier are capable.
   3. Dry markers in six colors and white board eraser set. Replace markers when exhausted or lost.
   4. Bottled water suitable for water dispenser and disposable cups.
   5. Coffee supplies, including coffee, filters, cups, sugar, creamer, and stir-sticks.
   6. Hand-soap, paper towels, toilet paper, cleansers, and janitorial implements, including broom.
   7. Batteries for smoke detector and other battery-powered items furnished by CONTRACTOR.
   8. Replace fire extinguishers upon expiration.
9. Not less-often than monthly, inspect first-aid kit and inventory items consumed or used and remove items that are at or near their expiration date. Promptly replace and restock consumed and expired items.

3.3 REMOVAL

A. Remove field office and furnishings when directed by ENGINEER, prior to inspection for final completion. Deliver specified equipment to DEPARTMENT.

++ END OF SECTION ++
PART 1 – GENERAL

1.1 DESCRIPTION

A. Scope:
   1. CONTRACTOR shall provide a temporary field office for CONTRACTOR’s use with not less than the minimum facilities specified in the Contract Documents.
   2. Provide required temporary storage and work sheds, as applicable.
   3. Obtain and pay for required permits and utilities. Field offices and sheds shall comply with local ordinances unless otherwise modified in Section IX Supplementary Conditions.

B. Coordination:
   1. Coordinate with DEPARTMENT and ENGINEER use of the Site including the location of field offices and sheds.

C. Location:
   1. Locate field offices and sheds in accordance with the Contract Documents and in accordance with the approved submittals.

D. Furnish in CONTRACTOR’s field office one complete set of the Contract Documents for ready reference by interested persons. In addition to the reference set, comply with Section X Standard Specifications: Section 01 78 39 – Project Record Documents and related provisions of Section VIII General Conditions, as may be modified by Section IX Supplementary Conditions.

1.2 SUBMITTALS

A. Informational Submittals:
   1. Field Office(s) and Sheds Shop Drawings: Submit the following under one submittal cover at least 20 days prior to Work associated with this Section:
      a. Site plan indicating proposed location of field office(s) and sheds, parking for field office(s), facilities related to the field office(s), and material of both field office(s) parking and sidewalk or walkway to field office(s) and sheds.
      b. Information on proposed field office and shed size, construction, exterior appearance, interior finishes, and security measures.
PART 2 – PRODUCTS

2.1 FIELD OFFICE AND SHEDS – FURNISHINGS, AND EQUIPMENT

A. Contractor’s Field Office and Furnishings:
   1. Construction: As required by CONTRACTOR and sufficient for Project meetings.
   2. Utilities and Services: Provide the following:
      a. Telephone service, capable of group teleconference
      b. Computer network and related facilities as required for CONTRACTOR’s needs.
      c. Utilities and related facilities for lighting and maintaining temperature, in accordance with Section X Standard Specifications: Section 01 52 11 – ENGINEER’s Field Office.
   3. Furnishings:
      a. Conference Facilities: Provide conference area with conference table and chairs sufficient for 10 people. Conference facilities and furnishings shall be provided with suitable utilities, lighting, ventilation, and temperature controls prior to the first progress meeting, unless otherwise approved by ENGINEER.
      b. Other furnishings required by CONTRACTOR.
   4. Provide on field office’s exterior an identification sign displaying CONTRACTOR’s company name and emergency contact number. Maximum size of sign shall be four feet by four feet. Sign shall be suitable for outdoor use for the duration of the Project.
   5. Furnish and maintain at CONTRACTOR’s field office six (6) protective helmets (“hard hats”) for use by visitors to the Site.

B. Contractor’s Storage and Work Sheds:
   1. Provide storage and work sheds sized, furnished, and equipped to accommodate personnel, materials, and equipment involved in the Work, including temporary utility services and facilities required for environmental controls sufficient for personnel, materials, and equipment.

PART 3 – EXECUTION

3.1 INSTALLATION

A. Installation:
   1. Install CONTRACTOR’s temporary field offices, sheds, and related facilities in accordance with Laws and Regulations.
   2. Install materials and equipment, including prefabricated structures, in accordance with manufacturer’s instructions.
3.2 MAINTENANCE AND REMOVAL

A. Maintenance:
   1. Clean and maintain field offices and sheds as required.
   2. Provide consumables as required.

B. Removal:
   1. Do not remove temporary field offices and sheds until after Substantial Completion of the entire Work, unless otherwise approved by ENGINEER.
   2. Remove field offices and sheds and restore areas prior to final inspection.

++ END OF SECTION ++
PART 1 – GENERAL

1.1 DESCRIPTION

A. Scope:
   1. CONTRACTOR shall provide temporary construction access roads, walks, parking areas, and appurtenances required during the Project for use by CONTRACTOR, DEPARTMENT, ENGINEER, and emergency vehicles.
   2. Temporary roads and parking areas shall be designed and maintained by CONTRACTOR and shall be fully passable to vehicles during normal weather conditions.

B. Use of Existing Access Roads:
   1. CONTRACTOR is allowed to use existing roads starting on the Effective Date of the Agreement and after satisfying other Contract requirements relative to starting the Work.
   2. Prevent interference with traffic on existing roads and parking areas. Always keep access roads and entrances serving the Site clear and available to DEPARTMENT, ENGINEER, and their respective employees; emergency vehicles; and other contractors. Do not use access roads or Site entrances for parking or storage of materials or equipment.
   3. CONTRACTOR shall indemnify and hold harmless DEPARTMENT and ENGINEER from expenses and losses caused by CONTRACTOR’s operations over existing roads, drives, and parking areas.
   4. Schedule deliveries to minimize use of driveways and Site entrances.

1.2 SITE ACCESS

A. Site Access:
   1. CONTRACTOR access to the Site shall be as depicted on the Contract Drawings and specified in this Section.
   2. Access to Area 1 OU-1: Via temporary construction access road constructed in accordance with this Section from Old Upper Mountain Road.
   3. Access to Area 1 OU-2: Via the Area 1 Site Access Road depicted in the Contract Drawings and constructed in accordance with Section XI Supplementary Specifications: Section 310001 – Access Road Construction.
   4. Access to Area 2 OU-2: From Oakhurst Street and over the existing Landfill Access Road. Improve the existing Landfill Access Road as necessary for construction access, in accordance with this Section. A proposed extension of the Landfill Access Road shall provide access to OU-2 and establish a new permanent road around the Lockport City Landfill Sediment Cell. The
proposed Landfill Access Road shall be constructed in accordance with Section XI Supplementary Specifications: Section 33 42 01 – Cap Appurtenances. Coordinate access across the Somerset Rail with Somerset and CSX Rail and adhere to all railroad crossing requirements.

5. Access to **Area 3 OU-3**: Via a temporary construction access road constructed in accordance with this Section from Otto Park Place, through the west viaduct. Confirm clearances of the viaduct for proposed construction equipment.

6. Access **within OU-2**: CONTRACTOR shall construct temporary construction access roads in accordance with this Section within OU-2 as necessary to support construction traffic for excavation, backfill, and restoration activities.

7. Access to **Gulf Creek Seep Area**: From the existing Landfill Access Road and over a proposed spur of the Landfill Access Road to the top of slope near the seep area. The proposed Landfill Access Road shall be constructed in accordance with Section XI Supplementary Specifications: Section 33 42 01 – Cap Appurtenances. Access down the slope shall be provided in the form as determined by the Contractor to support temporary construction access to the seep area. The access route down the slope shall be restored to preexisting conditions. The Landfill Access Road spur shall remain in place.

1.3 **CONTRACTOR PARKING**

A. CONTRACTOR employee vehicles shall park in area(s) approved by ENGINEER.

B. Park construction vehicles and equipment in work areas off of permanent roads and parking areas, in areas of the Site designated for CONTRACTOR staging.

C. Personal vehicles and construction equipment shall always be parked outside of the 100-year floodplain area as depicted on the Contract Drawings. Adhere to the requirements of Section XI Supplementary Specifications: Section 35 60 00 – Temporary Water Diversion and Flood Contingency Planning.

1.4 **SUBMITTALS**

A. Submit a Site Access Plan as a component of the CONTRACTOR’s Work Plan (as required by Section X Standard Specifications: Section 01 33 00 – Submittal Procedures) that includes the following components, at a minimum:

1) Construction Site Plan depicting the location and sequencing of temporary construction access roads and parking areas, including construction details

2) A narrative describing the construction methods, materials, routes, sequencing, and other aspects necessary for construction access to and throughout the Site. Specifically address construction access through OU-2 and describe methods to provide construction access through wetlands and open water areas while protecting natural resources and preventing impacts to downstream areas, in accordance the Contract Documents and applicable permits.

01 55 13-2 JUNE 2022
3) Removal and disposal procedures

B. Product Data
   a. Temporary construction access road materials (Stabilization Geotextile, Type I Subbase Course)
   b. Submit Product Data at least 20 days prior to starting Work associated with the products.

PART 2 – PRODUCTS

2.1 MATERIALS

A. Materials for temporary construction access roads and parking areas
   1. Stabilization Geotextile
      a. As specified in Section XI Supplementary Specifications: Section 31 05 19 – Geotextiles
   2. Type I Subbase Course
      a. Shall meet requirements of NYSDOT Standard Specifications 733.0401, or approved equal.

B. Traffic controls shall comply with requirements of authorities having jurisdiction. When such authority is the DEPARTMENT or facility manager, and no requirements are indicated, comply with the standard specifications of the state department of transportation in the area of the Project.

PART 3 – EXECUTION

3.1 TEMPORARY CONSTRUCTION ACCESS ROADS AND PARKING AREAS

A. Temporary Construction Access Roads and Parking Area:
   1. This Paragraph does not apply to
      a. Area 1 Site Access Road (see Section XI Supplementary Specifications: Section 31 00 01 – Access Road Construction)
      b. Perimeter Access Road (see Section XI Supplementary Specifications: Section 33 42 01 – Cap Appurtenances)
      c. Landfill Access Road (see Section XI Supplementary Specifications: Section 33 42 01 – Cap Appurtenances)
   2. Provide temporary construction access roads and parking areas adequate to support and withstand traffic loads during the Project. Locate temporary roads and parking areas in areas approved by the ENGINEER.
   3. Provide a Stabilization Geotextile as separation fabric with subgrade and a reasonably-level, graded, compacted, well-drained layer of Type I Subbase Course or approved equal, not less than 6 inches thick. Subbase for temporary roads and areas traveled by construction vehicles shall be adequate for loads and traffic served.
4. Excavation of existing earthen slopes may be required in order to construct temporary construction access roads. Excavation of cover material the Closed Lockport Landfill is not permitted for construction of temporary construction access roads. The CONTRACTOR is responsible for geotechnical stability of the temporary construction access roads.

5. Access roads shall be constructed to promote drainage of stormwater out of the path of vehicle travel and to prevent erosive conditions.

3.2 TRAFFIC CONTROLS

A. Traffic Controls:
   1. Provide temporary traffic controls at intersections of temporary roads with each other and with parking areas, including intersections with other temporary roads, intersections with public roads, and intersections with permanent access roads at the Site.
   2. Provide temporary warning signs on permanent roads and drives and provide temporary “STOP” AND “TRUCKS ENTERING” signs for traffic on temporary roads where required and at entrances to public roadways.
   3. Comply with requirements of authorities having jurisdiction. When such authority is the DEPARTMENT or facility manager, and no requirements are indicated, comply with the standard specifications of the state department of transportation in the area of the Project.

3.3 MAINTENANCE OF ROADS

A. General:
   1. Maintain temporary roads and parking to continuously provide Site access for construction vehicles and trucks, DEPARTMENT and ENGINEER vehicles, deliveries for DEPARTMENT and ENGINEER, emergency vehicles, and parking areas for DEPARTMENT and ENGINEER vehicles.
   2. Public roads shall be passable at all times unless a road closure is allowed in writing by authority having jurisdiction.
   3. When granular material of temporary roads and parking without hard surfacing become intermixed with soil or when temporary roads otherwise create a nuisance, remove intermixed granular-and-soil material and replace with clean granular material as required.
   4. Provide snow and ice removal for temporary roads and parking areas.

B. Cleaning and Dust Control:
   1. Cleaning: Clean paved surfaces over which construction vehicles travel.
   2. Clean the following surfaces:
      a. Roads within limits of the Project.
      b. Permanent roads at the Site between the Site entrance and the work areas, and between the Site entrance and construction parking and staging areas.
      c. Public roads that require sweeping and cleaning due to construction operations.
3. Dust Control:
   a. Control dust resulting from construction activities to prevent nuisances at the Site and in nearby areas.

C. Protection of Underground Facilities: Comply with Section VII General Conditions, as may be modified by Section IX Supplementary Conditions, and other requirements of the Contract Documents.

3.4 REMOVALS AND RESTORATION

A. Removals:
   1. Remove temporary roads, drives, walks, and parking areas that are not intended to be permanent. Return areas of temporary roads, drives, walks, and parking to pre-construction condition unless otherwise required by the Contract Documents.
   2. Remove temporary gates, fencing, and traffic controls associated with temporary roads and parking areas.
   3. Remove temporary road and parking area materials entirely, including the geotextile, subbase, and any other materials associated with temporary facilities.
   4. Remove and properly dispose offsite of materials contaminated with oil, bitumen, and other petrochemical compounds resulting from CONTRACTOR’s operations, and other substances that might impair growth of plants and lawns.

B. Restoration:
   1. Repair or replace paving, curbs, gutters, and sidewalks affected by temporary roads and parking, and restore to required conditions in accordance with authorities having jurisdiction.
   2. Restore to pre-construction conditions existing roads, walks, and parking areas damaged by CONTRACTOR, subject to approval of the DEPARTMENT of affected roads, drives, walks, and parking areas.

++ END OF SECTION ++
SECTION 01 57 33

SECURITY

PART 1 – GENERAL

1.1 DESCRIPTION

A. Scope:
   1. This Section includes general requirements for security at the Site, including accessing the Site, securing the Work, temporary fencing, and other requirements.
   2. CONTRACTOR shall safely guard all the Work, the Project, materials, equipment, and property from loss, theft, damage, and vandalism until Substantial Completion, unless otherwise agreed upon by the parties.
   3. CONTRACTOR’s duty includes safely guarding DEPARTMENT’s property in vicinity of the Work and Project, and other private property in the vicinity of the Project from injury and loss in connection with performance of the Project.
   4. Employ watchmen as required to provide required security and prevent unauthorized entry.
   5. Costs for security required under this Section shall be paid by CONTRACTOR.
   6. Make no claim against DEPARTMENT for damage resulting from trespass.
   7. Remedy damage to property of DEPARTMENT and others arising from failure to furnish adequate security.
   8. Provide temporary fencing adequate to secure Site.
   9. The CONTRACTOR is solely responsible for the security of the ENGINEER’s and CONTRACTOR’s work areas, equipment, materials, and supplies provided under this contract. Furthermore, CONTRACTOR is responsible for ensuring site visitors related to this contract are escorted as necessary (to get where they are going) and do not enter contaminated areas without authorization.
   10. If the CONTRACTOR furnishes an uniformed watchman or other security personnel, the CONTRACTOR shall provide that person(s) with accommodations separate from the DEPARTMENT and ENGINEER. The ENGINEER will have the right of approval and rejection of the CONTRACTOR's security personnel.

1.2 SUBMITTALS

A. Informational Submittals: Submit the following at least 20 days prior to Work at the Site
   1. Shop Drawings:
a. Temporary Fencing: Submit site plan drawings showing proposed locations and extent of temporary site security fencing and each breach therein.

2. Product Data:
   a. Temporary Fencing: Manufacturer’s literature, specifications, and installation instructions for temporary site security fencing proposed.

3. Qualifications:
   a. Submit security firm experience and personnel resumes.

B. Informational Submittals: Submit the following:
   1. Routine Submittals
      a. Submit monthly security logs.
   2. Employee Information: Submit to DEPARTMENT, as applicable under Section IX Supplementary Conditions;
      a. Format of employee background data.
      b. Background data for employees to whom identification badges will be furnished.
      c. Updated listing of personnel to whom identification badges have been issued. Submit updated listing within 24 hours of a change in the list or change in an employee’s Site access status.

C. Closeout Submittals: Submit the following:
   1. Submit 3 copies of the all site entrance/exit log and the watchman logs as part of the project record documents in accordance with Section X Standard Specifications: Section 01 78 39 – Project Record Documents.

1.3 CONTRACTOR’S SITE ACCESS AND SECURITY PROCEDURES

A. Comply with Section X Standard Specifications: Section 01 55 13 – Access Roads and Parking Areas.

B. Comply with DEPARTMENT’s security procedures and access restrictions at the Site throughout the Project. Comply with the following:
   1. Personnel Identification:
      a. All CONTRACTOR personnel, including Subcontractors, Suppliers, and others associated with the Project shall wear, at a visible location, at all times at the Site a durable, waterproof badge bearing CONTRACTOR’s name, employer (if other than CONTRACTOR), employee’s name and, as applicable, employee number.
   2. General Provisions Regarding Personnel Identification, as applicable under the Supplementary Conditions:
      a. Prerequisites to Issuance of Personnel Identification Badges:
         1) Do not issue personnel identification badge until the person receiving the badge is documented by CONTRACTOR as:
            a) Being eligible to perform work in the jurisdiction where the Project is located.
b) Has received all required safety instructions, training, and equipment.

c) Is known to CONTRACTOR as being qualified to perform the Work to which the person will be assigned.

b. Listing of Personnel to Whom Badges are Issued:
1) Maintain and continuously update a listing or log of all personnel to whom personnel identification badges have been issued.
2) Listing or log shall indicate each person’s full name, home address, personal telephone number, employer name, and employer address and telephone number.
3) Submit copy of listing or log to DEPARTMENT in accordance with Article 1.2 of this Section.

3. Parking:
   a. Do not park outside of designated CONTRACTOR parking area.
   b. Prepare and maintain parking area as required.

PART 2 – PRODUCTS

2.1 TEMPORARY FENCING

A. Provide and maintain temporary security fencing adequate to secure site, in manner satisfactory to ENGINEER and DEPARTMENT.

PART 3 – EXECUTION

3.1 TEMPORARY FENCING

A. Installation:
   1. Provide temporary fencing for site security so that integrity of site security is maintained throughout the Project.
   2. Install temporary fencing used for site security in accordance with the Contract Documents, Section X Standard Specifications: Section 01 51 05 – Temporary Utilities and Controls and fence manufacturer’s instructions.

B. Maintenance:
   1. Maintain temporary fencing throughout the Project.
   2. Repair damage to temporary fencing and replace fencing when required to preserve Site security.

C. Removal:
   1. Remove temporary fencing when permanent site security fencing is in place and fully functional, or when otherwise directed or ENGINEER.
3.2 LOGS

A. Site Entrance/Exit Log:
1. Log shall contain signed entry and exit record for project personnel and visitors.
2. Log shall record time of entry and exit and firm of the individual.

B. Watchman Log/Activities:
1. Log shall record all security checks performed by security personnel and shall contain date and time, problem notes and CONTRACTOR personnel notified of problems. Allow inspection of log by ENGINEER or DEPARTMENT.
2. Conduct three security checks during non-working hours.

C. Site Access/Control:
1. The CONTRACTOR shall be responsible for the control of all persons and vehicles entering and leaving the project site, and shall:
   a. Require personnel to print full name and employer and sign in on entering the project site and to sign out when leaving and maintain the logs.
   b. Maintain a log of project-related vehicles and equipment entering and leaving the work areas.
   c. Persons not associated with the project will require the ENGINEER's acceptance to be admitted on site.
   d. Maintain a log of visitors, separate from the project personnel log.
2. A log of all security incidents shall be maintained and furnished to the ENGINEER upon request.
3. The CONTRACTOR shall ensure that all warning signs are in place and temporary fences around work areas are closed and any breaks or gaps are attended immediately. The ENGINEER shall be informed immediately of any incident of vandalism in the work areas.
4. The CONTRACTOR shall contact law enforcement officials, emergency medical care units, local fire departments and utility emergency teams to ascertain the type of response required in any emergency situation and to coordinate the responses of the various units. A standard operating procedure describing security force response to foreseeable contingencies shall be developed. The CONTRACTOR shall also prepare and update a list of emergency points of contact, telephone numbers, radio frequencies, and call signs to ensure dependable responses.
5. The CONTRACTOR shall maintain a current list of authorized persons and shall submit copies of the updated list to the ENGINEER.

++ END OF SECTION ++
PART 1 – GENERAL

1.1 DESCRIPTION

A. Scope:
   1. CONTRACTOR shall furnish, install, and maintain temporary signage for Project identification and construction site information.
   2. Temporary signs required are indicated in Part 2 of this Section.
   3. Do not display any other temporary signs, other than those specified, without prior approved of DEPARTMENT.

1.2 QUALITY ASSURANCE

A. Qualifications:
   1. Sign Painter:
      a. Shall be a professional in the type of Work required, regularly engaged in work similar to that required.

1.3 SUBMITTALS

A. Action Submittals: Submit the following at least 20 days prior to Work at the Site:
   1. Shop Drawings:
      a. Layout of each sign (sign proof), indicating layout, text, font, character size, graphics (if any), type and grade of materials, including sign materials, supports, and bracing.

B. Informational Submittals: Submit the following at least 20 days prior to Work at the Site:
   1. Product Data:
      a. Specifications and product data for finishes proposed for use.
   2. Samples:
      a. Submit color Samples

PART 2 – PRODUCTS

2.1 MATERIALS AND CONSTRUCTION

A. Performance Criteria:
   1. Temporary signs, including supports and bracing, shall withstand sustained winds of 75 miles per hour.
B. Temporary Signage Required: Provide the following temporary signs:
   1. Project Sign: as further defined in the project sign guidance attachment.

PART 3 – EXECUTION

3.1 INSTALLATION, MAINTENANCE, AND REMOVAL

A. Installation:
   1. Location of signs shall be as directed by ENGINEER. Signs shall be plainly visible to vehicular traffic.
   2. Install signs in a neat, professional, workmanlike manner to withstand the performance criteria indicated in this Section.
   3. Install signs within two weeks of the Mobilization to the site.
   4. Fasten sign, in a level position, securely to posts or fenceline. The center of the sign should be located approximately 6 to 7 feet from ground level.

B. Maintenance:
   1. Maintain temporary signage so that signs are clean, legible, and upright.
   2. Cut grass, weeds, and other plants so that temporary signs are not covered or obscured.
   3. Repair and repaint damaged temporary signs.
   4. Relocate signs as required by progress of the Project.

C. Remove temporary signage prior to final inspection of the Work, or when directed by ENGINEER.

++ END OF SECTION ++
Sign Requirements

Sign Size: Horizontal format – 96” wide by 48” high

Construction
Materials: Aluminum or wood blank sign boards with vinyl sheeting.

Content: “New York State DEC logo”, “STATE SUPERFUND PROGRAM”, “{Site Name}”, “{Site No.”, “New York State Department of Environmental Conservation”, “Governor {First Name, Middle Initial, Last Name}”, “For More Information: derweb@dec.ny.gov”.

Text and
Color Scheme: New York State DEC Logo (PM to provide .eps file or equivalent)
Green text (PANTONE 350C or CMYK 100/43/83/42)

STATE SUPERFUND PROGRAM (ALL CAPS)
Green text (PANTONE 350C or CMYK 100/43/83/42)

{Site Name}
Blue text (PANTONE 288C or CMYK 100/87/27/19)

Site No. {Site Number}
Blue text (PANTONE 288C or CMYK 100/87/27/19)

New York State Department of Environmental Conservation
Green text (PANTONE 350C or CMYK 100/43/83/42)

Governor {First Name, Middle Initial, Last Name}
Black text (PANTONE Black 6 C or CMYK 100/61/32/96)

For More Information: derweb@dec.ny.gov
Blue text (PANTONE 288C or CMYK 100/87/27/19)

Type
Specifications: All Font is: Arial
Format is: Center each line of copy with initial caps and small letters

Production
Notes: 96” wide x 48” high aluminum blanks will be covered with vinyl sheeting to achieve background color. Copy and logo will be silk screened on this surface.

Sign Format: See following page.
Project Sign Format

8'

2''

6''

3''

STATE SUPERFUND PROGRAM

{Site Name}

Site No. {######}

New York State Department of Environmental Conservation

Governor {First Name, Middle Initial, Last Name}

For More Information: derweb@dec.ny.gov

Color Key for Text:
- Green Text = Pantone 350C or CMYK 80/43/83/42
- Blue Text = Pantone 288C or CMYK 100/87/27/19
- Black Text = Pantone Black 6 C or CMYK 100/61/32/96

01 58 00 Attachment A
PART 1 – GENERAL

1.1 DESCRIPTION
A. Scope:
   1. This Section includes:
      a. CONTRACTOR’s options for selecting materials and equipment.
      b. Requirements for consideration of “or-equal” materials and equipment as further defined in Section VIII General Conditions.

1.2 PRODUCT OPTIONS
A. For materials and equipment specified only by reference standard or description, without reference to Supplier, furnish materials and equipment complying with such standard, by a Supplier or from a source that complies with the Contract Documents.

B. For materials and equipment specified by naming one or more items or Suppliers, furnish the named materials and equipment that comply with the Contract Documents, unless an “or-equal” or substitute item is approved by ENGINEER.

C. For materials and equipment specified by naming one or more items or Suppliers and the term, “or-equal”, when CONTRACTOR proposes a material or equipment item or Supplier as an “or-equal”, submit to ENGINEER a request for approval of an “or-equal” item or Supplier.

1.3 “OR-EQUAL” ITEMS
A. Procedure:
   1. For proposed materials and equipment not named in the Contract Documents and considered as an “or-equal” in accordance with the Section VIII General Conditions, CONTRACTOR shall request in writing ENGINEER’s approval of the “or-equal”.
   2. Request for approval of an “or-equal” item shall accompany the Shop Drawing or product data submittal for the proposed item

B. Requests for approval of “or-equals” shall include:
   1. CONTRACTOR’s written request that the proposed item be considered as an “or-equal” in accordance with the Section VII General Conditions, accompanied by CONTRACTOR’s certifications required in the General Conditions.
2. Documentation adequate to demonstrate to ENGINEER that proposed item does not require extensive revisions to the Contract Documents, that proposed item is consistent with the Contract Documents, and that proposed item will produce results and performance required in the Contract Documents, and that proposed item is compatible with other portions of the Work.

3. Detailed comparison of significant qualities of proposed item with the materials and equipment and manufacturers named in the Contract Documents. Significant qualities include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements shown or indicated.

4. Evidence that proposed item’s manufacturer will furnish warranty equal to or better than that specified, if any.

5. List of similar installations for completed projects with project names and addresses, and names and address of design professionals and owners, when requested.

6. Samples, when requested by ENGINEER.

7. Other information requested by ENGINEER.

1.4 SUBMITTALS

A. Action Submittals: Submit written requests for “or equal” approval at least 20 days prior to Work associated with the product. Include shop drawings and product data.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

++ END OF SECTION ++
SECTION 01 65 00

PRODUCT DELIVERY REQUIREMENTS

PART 1 – GENERAL

1.1 DESCRIPTION

A. Scope:
   1. This Section includes general requirements for preparing for shipping, delivering, and handling materials and equipment to be incorporated into the Work.
   2. CONTRACTOR shall make all arrangements for transporting, delivering, and handling of materials and equipment required for prosecution and completion of the Work.
   3. When required, move stored materials and equipment without changes to the Contract Price or Contract Times.

1.2 SUBMITTALS

A. Refer to individual Specifications Sections for submittal requirements relative to delivering and handling materials and equipment.

1.3 PREPARING FOR SHIPMENT

A. When practical, factory-assemble materials and equipment. Mark or tag separate parts and assemblies to facilitate field-assembly. Cover machined and unpainted parts that may be damaged by the elements or climate with strippable, protective coating.

B. Package materials and equipment to facilitate handling, and protect materials and equipment from damage during shipping, handling, and storage. Mark or tag outside of each package and crate to indicate the associated purchase order number, bill of lading number, contents by name, DEPARTMENT’s contract designation, CONTRACTOR name, equipment number, and approximate weight. Include complete packing lists and bills of materials with each shipment.

C. Protect materials and equipment from exposure to the elements and damage by climate and keep thoroughly dry and dust-free at all times. Protect painted surfaces against impact, abrasion, discoloration, and other damage. Lubricate bearings and other items requiring lubrication in accordance with manufacturer’s instructions.

D. Do not ship materials and equipment until:
1. Related Shop Drawings, Samples, and other submittals required by the Contract Documents have been approved or accepted (as applicable) by ENGINEER, including, but not necessarily limited to, all Action Submittals associated with the materials and equipment being delivered.

2. Manufacturer’s instructions for handling, storing, and installing the associated materials and equipment have been submitted to and accepted by ENGINEER in accordance with the Specifications.

3. Results of source quality control testing (factory testing), when required by the Contract Documents for the associated materials or equipment, have been submitted to and accepted by ENGINEER.

4. Facilities required for handling materials and equipment in accordance with the Contract Documents and manufacturer’s instructions are in place and available.

5. Required storage facilities have been provided.

1.4 DELIVERY

A. Scheduling and Timing of Deliveries:

1. Arrange deliveries of materials and equipment in accordance with the Progress Schedule accepted by ENGINEER and in ample time to facilitate inspection and observation prior to installation.

2. Schedule deliveries to minimize space required for and duration of storage of materials and equipment at the Site or other delivery location, as applicable.

3. Coordinate deliveries to avoid conflicting with the Work and conditions at Site, and to accommodate the following:
   a. Work of other contractors and DEPARTMENT.
   b. Storage space limitations.
   c. Availability of equipment and personnel for handling materials and equipment.
   d. DEPARTMENT’s use of premises.

4. Deliver materials and equipment to the Site during regular working hours.

5. Deliver materials and equipment to avoid delaying the Work and the Project, including work of other contractors, as applicable. Deliver anchor system materials, including anchor bolts to be embedded in concrete or masonry, in ample time to avoid delaying the Work.

B. Deliveries:

1. Shipments shall be delivered with CONTRACTOR’s name, Subcontractor’s name (if applicable), Site name, Project name, and contract designation clearly marked.

2. Site may be listed as the “ship to” or “delivery” address; but DEPARTMENT shall not be listed as recipient of shipment unless otherwise directed in writing by ENGINEER.

3. Provide CONTRACTOR’s telephone number to shipper; do not provide DEPARTMENT’s telephone number.
4. Arrange for deliveries while CONTRACTOR’s personnel are at the Site. CONTRACTOR shall receive and coordinate shipments upon delivery. Shipments delivered to the Site when CONTRACTOR is not present will be refused by DEPARTMENT, and CONTRACTOR shall be responsible for the associated delays and additional costs, if incurred.


C. Containers and Marking:
1. Have materials and equipment delivered in manufacturer’s original, unopened, labeled containers.
2. Clearly mark partial deliveries of component parts of materials and equipment to identify materials and equipment, to allow easy accumulation of parts, and to facilitate assembly.

D. Inspection of Deliveries:
1. Immediately upon delivery, inspect shipment to verify that:
   a. Materials and equipment comply with the Contract Documents and approved or accepted (as applicable) submittals.
   b. Quantities are correct.
   c. Materials and equipment are undamaged and of the required quality.
   d. Containers and packages are intact and labels are legible.
   e. Materials and equipment are properly protected.
2. Promptly remove damaged materials and equipment from the Site and expedite delivery of new, undamaged materials and equipment, and remedy incomplete or lost materials and equipment. Furnish materials and equipment in accordance with the Contract Documents, to avoid delaying progress of the Work.
3. Advise ENGINEER in writing when damaged, incomplete, or defective materials and equipment are delivered, and advise ENGINEER of the associated impact on the Progress Schedule.

1.5 HANDLING OF MATERIALS AND EQUIPMENT

A. Provide equipment and personnel necessary to handle materials and equipment, including those furnished by DEPARTMENT, by methods that prevent soiling or damaging materials and equipment and packaging.

B. Provide additional protection during handling as necessary to prevent scraping, marring, and otherwise damaging materials and equipment and surrounding surfaces.

C. Handle materials and equipment by methods that prevent bending and overstressing.

D. Lift heavy components only at designated lifting points.
E. Handle materials and equipment in safe manner and as recommended by the manufacturer to prevent damage. Do not drop, roll, or skid materials and equipment off delivery vehicles or at other times during handling. Hand-carry or use suitable handling equipment.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

++ END OF SECTION ++
SECTION 01 66 00

PRODUCT STORAGE AND HANDLING REQUIREMENTS

PART 1 – GENERAL

1.1 DESCRIPTION

A. Scope:
   1. This Section includes general requirements for storing and protecting materials and equipment.
   2. CONTRACTOR shall provide all labor, materials, tools, equipment, and incidentals to store and handle materials and equipment to be incorporated into the Work, and other materials and equipment at the Site.

1.2 STORAGE

A. Store and protect materials and equipment in accordance with manufacturer’s recommendations and the Contract Documents.

B. General:
   1. CONTRACTOR shall make all arrangements and provisions necessary for, and pay all costs for, storing materials and equipment.
   2. Excavated materials, construction equipment, and materials and equipment to be incorporated into the Work shall be placed to avoid injuring the Work and existing facilities and property, and so that free access is maintained at all times to all parts of the Work and to public utility installations in vicinity of the Work.
   3. Store materials and equipment neatly and compactly in locations that cause minimum inconvenience to DEPARTMENT, facility manager, other contractors, public travel, and tenants, and occupants of adjoining property.
   4. Arrange storage in manner to allow easy access for inspection by ENGINEER.

C. Storage Location:
   1. Areas available at the Site for storing materials and equipment are shown or indicated in the Contract Documents, or as acceptable to ENGINEER.
   2. Restrictions:
      a. Do not store materials or equipment in structures being constructed unless approved by ENGINEER in writing.
b. Do not use lawns or other private property for storage without written permission of the DEPARTMENT or other person in possession or control of such premises.

D. Protection of Stored Materials:
1. Store materials and equipment to become DEPARTMENT’s property to ensure preservation of quality and fitness of the Work, including proper protection against damage by freezing, moisture, and with outdoor ambient air temperatures as high as 120 degrees F; temperature and humidity inside crates, containers, storage sheds, and packaging may be significantly higher than the outdoor ambient air temperature.
2. Store in indoor, climate-controlled storage areas all materials and equipment subject to damage by moisture, humidity, heat, cold, and other elements, unless otherwise acceptable to DEPARTMENT.
3. When placing orders to Suppliers for equipment and controls containing computer chips, electronics, and solid-state devices, CONTRACTOR shall obtain, coordinate, and comply with specific temperature and humidity limitations on materials and equipment, because temperature inside cabinets and components stored in warm temperatures can approach 200 degrees F.
4. CONTRACTOR shall be fully responsible for loss or damage (including theft) to stored materials and equipment.
5. Do not open manufacturer’s containers until time of installation, unless recommended by the manufacturer or otherwise specified in the Contract Documents.
6. Comply with requirements of Article 1.3 of this Section.

1.3 PROTECTION – GENERAL

A. Equipment to be incorporated into the Work shall be boxed, crated, or otherwise completely enclosed and protected during shipping, handling, and storage, in accordance with Section X Standards Specifications: Section 01 65 00 – Product Delivery Requirements.

B. Store all materials and equipment off the ground (or floor) on raised supports such as skids or pallets.

C. Protect painted surfaces against impact, abrasion, discoloration, and other damage. Painted equipment surfaces that are damaged or marred shall be repainted in their entirety in accordance with equipment manufacturer and paint manufacturer requirements, to the satisfaction of ENGINEER.

D. Protect electrical equipment, controls, and instrumentation against moisture, water damage, humidity, heat, cold, and dust. Space heaters provided in equipment shall be connected and operating at all times until equipment is placed in operation and permanently connected.
1.4 UNCOVERED STORAGE

A. The following types of materials may be stored outdoors without cover on supports so there is no contact with the ground:
   1. Reinforcing steel.
   2. Precast concrete materials.
   4. Metal stairs.
   5. Handrails and railings.
   7. Checker plate.
   8. Metal access hatches.
   10. Fiberglass items.
   12. Piping, except PVC or chlorinated PVC (CPVC) pipe.

1.5 COVERED STORAGE

A. The following materials and equipment may be stored outdoors on supports and completely covered with covering impervious to water:
   1. Grout and mortar materials.
   2. Masonry units.
   3. Rough lumber.
   4. Soil materials and granular materials such as aggregate.
   5. PVC and CPVC pipe.
   6. PVC-coated electrical conduit.
   7. Filter media.

B. Tie down covers with rope and install covering properly sloped to prevent accumulation of water.

C. Store loose granular materials, with covering impervious to water, in well-drained area or on solid surfaces to prevent mixing with foreign matter.

1.6 FULLY PROTECTED STORAGE

A. Store all material and equipment not indicated in Articles 1.4 and 1.5 of this Section on supports in buildings or trailers that have concrete or wooden flooring, roof, and fully-closed walls on all sides. Covering with visquine plastic sheeting or similar material in space without floor, roof, and walls is unacceptable. Comply with the following:
   1. Provide heated storage for materials and equipment that could be damaged by low temperatures or freezing.
   2. Provide air-conditioned storage for materials and equipment that could be damaged by high temperatures or humidity.
3. Protect mechanical and electrical equipment from being contaminated by dust, dirt, and moisture.
4. Maintain humidity at levels recommended by manufacturers for electrical and electronic equipment.

1.7 HAZARDOUS MATERIALS AND EQUIPMENT


1.8 MAINTENANCE OF STORAGE

A. On a scheduled basis, periodically inspect stored materials and equipment to ensure that:
   1. Condition and status of storage facilities is adequate to provide required storage conditions.
   2. Required environmental conditions are maintained on continuing basis.
   3. Materials and equipment exposed to elements are not adversely affected.

1.9 RECORDS

A. Keep up-to-date account of materials and equipment in storage to facilitate preparation of Applications for Payment, if the Contract Documents provide for payment for materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

++ END OF SECTION ++
PART 1 – GENERAL

1.1 DESCRIPTION

A. Scope:

1. This Section includes field engineering, surveying, and layouts by CONTRACTOR, and associated requirements. This Section supplements the Section VI Agreement and Section VIII General Conditions’ provisions on reference points and other matters.

2. CONTRACTOR shall provide field engineering services, surveying and layout services, and professional services of the types indicated for the Project, including:

   a. Furnishing civil, structural, and other delegated professional engineering services specified or required to execute CONTRACTOR’s construction methods.
   
   b. Developing and making all detail surveys and measurements required for construction; including slope stakes, batter boards, and all other working lines, elevations, and cut sheets.
   
   c. Providing materials required for benchmarks, control points, batter boards, grade stakes, structure and pipeline elevation stakes, and other items.
   
   d. Keeping a total station; survey grade global positioning system (GPS); leveling instrument; and related surveying equipment at the Site at all times and having a skilled instrument person available when necessary for laying out the Work.
   
   e. Being solely responsible for all locations, dimensions and levels. No data other than Change Order, Work Change Directive, or Field Order shall justify departure from dimensions and levels required by the Contract Documents.
   
   f. Rectifying all Work improperly installed because of not maintaining, not protecting, or removing without authorization established reference points, stakes, marks, and monuments.
   
   g. Providing such facilities and assistance necessary for ENGINEER and/or DEPARTMENT to check lines and grade points placed by CONTRACTOR. Do not perform excavation or embankment work until all cross-sectioning necessary for determining payment quantities for Unit Price Work have been completed and accepted by ENGINEER.
   
   h. All survey work shall be certified by a New York State Professional Land Surveyor (PLS).
   
   i. PLS shall also work with contractor to develop a Quality Assurance program and necessary certification of GPS guided equipment to ensure
accuracy. The use of GPS data from equipment will not replace the required record surveys.


k. Submit all electronic survey files, surfaces, point files, etc. in a format compatible with AutoCAD Civil3D 2018.

B. Coordination:
   1. Review requirements of this and other Sections and coordinate installation of items to be installed with or before field engineering, surveying, and layout Work.

1.2 SUBMITTALS

A. Informational Submittals: Submit the following:
   1. Certificates:
      a. When requested by ENGINEER, submit certificate signed by professional engineer or professional surveyor, as applicable, certifying that elevations and locations of the Work comply with the Contract Documents. Explain each deviation, if any.
   2. Field Engineering:
      a. Submit daily CONTRACTOR Quality Control Reports as indicated in this Section
      b. When requested by ENGINEER, submit documentation verifying accuracy of field engineering.
   3. Surveying Plan:
      a. Complete plan for performing survey work, submitted not less than 10 days prior to beginning survey Work.
      c. Example of survey data to be maintained by CONTRACTOR’s surveyor. Example shall have sufficient information and detail, including example instrument output, calculations, and notes.
      d. Method of surveying and survey frequency of excavation/dredge verification survey.
      e. Selected bucket positioning system and a demonstration of the ability to achieve, monitor, and report the accuracies specified herein.
      f. Submit raw instrument data or field data within two days after completing survey Work.
      g. Submit certified surveys in accordance with this Section.
   4. Qualifications Statements:
      a. Submit the following qualifications the sooner of 7 days prior to the pre-construction conference or 30 days prior to the schedule mobilization to Site.
b. Field Engineer: Name, employer, professional address, qualifications, certificates, and resume.
c. Surveyor: Name, employer, and professional address of firm, and resumes of each professional land surveyor and crew chief that will be engaged in survey Work.
d. During the Project, submit resume for each field engineer, land surveyor, and crew chief employed by or retained by CONTRACTOR not less than 10 days prior to each individual starting onsite Work.

5. Surveys and Records
   a. All survey shall be submitted in electronic format (AutoCAD 2018 .dwg format) and a sealed certified PDF.
   b. Initial Survey. Submit within 20 days of starting Work at each location.
   c. Site Control Monuments. Submit locations, coordinates, and elevations within 20 days of starting Work at the Site.
   d. Intermediate Surveys. Submit with each Application for Payment or upon request of the ENGINEER.
   e. As-Built Surveys. Submit with each Application for Payment or upon request of the ENGINEER.
   f. Payment Surveys. Submit with each Application for Payment. Include electronic surface files in format compatible with AutoCAD Civil3D (2018 or later).
   g. Post Construction Environmental Easement Surveys. Submit prior to requesting Substantial Completion in accordance with Section X Standard Specifications: Section 01 77 19 – Closeout Requirements.
   h. Submit all survey logs, survey field notes, field books, raw data files, and other surveying records (closeout submittal) upon request of the Engineer and with project record documents in accordance with Section X Standard Specifications: Section 01 78 39 – Project Record Documents.

1.3 CONTRACTOR’S ENGINEERS

A. Qualifications of Field Engineer:
   1. Employ and retain at the Site a field engineer with experience and capability of performing all field engineering tasks required of CONTRACTOR, as indicated in this Article and elsewhere in the Contract Documents.
   2. CONTRACTOR’s field engineer shall possess experience performing duties similar in scope and extent to those required of CONTRACTOR’s field engineer on this Project. Qualifications of the CONTRACTOR’s field engineer shall be subject to review and approval by the DEPARTMENT.

B. Responsibilities of Contractor’s Field Engineer:
   1. Daily Reports:
      a. Prepare and maintaining daily reports of activity on the Contract. Submit reports to ENGINEER including the following information:
         1) Number of employees at the Site.
2) Number employees at the Site for each Subcontractor.
3) Breakdown of employees by trades.
4) Major equipment and materials installed as part of the Work.
5) Major construction equipment utilized.
6) Location of areas in which construction was performed.
7) Materials and equipment delivered to the Site or suitable, offsite
    storage location.
8) Work performed, including field quality control and testing.
9) Weather conditions.
10) Photographs of daily work
11) Safety concerns, events, and precautions taken.
12) Delays encountered, extent of delay incurred, reasons for the delay,
    and measures that will be taken to rectify delays encountered.
13) Acknowledgement of specific instructions received from
    ENGINEER or DEPARTMENT.

b. Daily reports shall be signed and dated by responsible member of
   CONTRACTOR’s staff, such as CONTRACTOR’s project manager, field
   engineer, superintendent, or foreman designated by CONTRACTOR as
   having authority to sign daily reports.

c. Submit CONTRACTOR’s daily reports in accordance with Section X
   Standard Specifications: Section 01 31 26 – Electronic Communication
   Protocols, by 9:00 a.m. the next working day after the day covered in the
   associated report.

2. Weekly reports as required by Section XI Supplementary Specifications:
   Section 01 40 00 – Quality Requirements.
3. Continually inspect the Work to ensure that the quality and quantities required
   by the Contract Documents are provided.
4. Cooperate as required with ENGINEER in observing the Work and performing
   field inspections.
5. Check and coordinate the Work for conflicts and interferences, and
   immediately advise ENGINEER of all discrepancies of which CONTRACTOR
   is aware.
6. Maintain field office files and drawings, record documents, and coordinate
   field engineering services with Subcontractors and Suppliers as appropriate,
   and other prime contractors (if any).
7. Prepare layout and coordination drawings for construction operations.
8. Review and coordinate the Work with Shop Drawings and CONTRACTOR's
    other submittals approved or accepted, as applicable, by ENGINEER.

C. Professionals Retained by Contractor (whether or not stationed at the Site):
1. Delegated Professional Design Services:
   a. Where the Contract Documents require CONTRACTOR to furnish
      professional engineering or architecture services as delegated
      professional design, the provisions of Section VIII General Conditions
      regarding delegated professional design services, and the Contract
Documents’ requirements applicable to the specific delegated professional design, shall apply.

2. Professional Services that are Not Delegated as Professional Design of the Completed Work:
   a. Where the Contract Documents require that the CONTRACTOR retain a design professional to carry out the CONTRACTOR’s responsibilities for construction means, methods, techniques, sequences and procedures (including temporary construction that will not remain as part of the completed Work), such services shall be performed by a registered professional of the discipline required for specific service on the Project, with valid license in the same jurisdiction as the Site.
   b. DEPARTMENT and ENGINEER shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, and approvals performed by such design professionals.

1.4 CONTRACTOR’S SURVEYOR

A. Qualifications:
   1. Employ or retain the services, as needed, at the Site a surveyor with experience and capability of performing surveying and layout tasks required in the Contract Documents and as required for the Work. Surveyor qualifications will be subject to review and acceptance by the ENGINEER.
   2. Surveyor shall be a professional land surveyor registered and licensed in the State of New York.

B. Responsibilities of Contractor’s Surveyor:
   1. Providing required surveying equipment, including transit, theodolite, or total station; level; stakes; and surveying accessories.
   2. Establishing required lines and grades for constructing all facilities, structures, pipelines, and site improvements, including outdoor electrical equipment and feeders.
   3. Preparing and maintaining professional-quality, accurate, well-organized, legible notes of all measurements and calculations made while surveying and laying out the Work.
   4. The survey field notes shall contain a complete description of the nature and location of the new and existing points. The record shall also include a sketch of the point locations, and the monument witness points.
   6. Locate on a site plan the actual location of above-ground work to be indicated on record documents.
   7. Complying with requirements of the Contract Documents relative to surveying and related Work, including requirements of this Section’s Articles 1.5 and 3.1.
   8. Prepare all surveys in AutoCAD format. Coordinate version with ENGINEER.
1.5 RECORDS

A. Records – General:
   1. Maintain at the Site a complete and accurate log of control and survey Work as such Work progresses.

B. Field Books and Records:
   1. Survey data and records shall be in accordance with recognized professional surveying standards, Laws and Regulations, and prevailing standards of practice in the locality where the Site is located.

C. Initial Survey:
   1. Provide topographic survey of site property and any contractor use areas, property boundary survey and utilities prior to site disturbance. Elevations will be provided for all control points.

D. Site Control:
   1. Provide at least three permanent site control monuments with elevations referenced to the North American Vertical Datum of 1988 (NAVD88) benchmark and coordinates referenced to the New York State Plane (NAD 83) Datum. One monument shall be located in close proximity to each Area 1, Area 2, and Area 3. The monument locations and elevations shall meet the Federal Geodetic Control Committee Standard for second order (horizontal and vertical). Final locations will be reviewed by the ENGINEER for acceptability.

E. Intermediate Survey
   1. Provide survey drawings delineating the areas and depth of all excavations prior to backfilling, and upon completion of rough shaping and grading and prior to placement of cover materials.
   2. Provide survey drawings of each lift of common fill placement and Amended Fill placement in the Containment Cell and Lockport City Landfill Sediment Cell (LCLSC).

F. As-Built Surveys
   1. Submit upon completion of the top of amended sediment placement, each layer of the containment cell cap and LCLSC cap, and final placement of backfill materials and restoration of all disturbed areas.
   2. Mapping shall conform to the National Map Accuracy Specifications and shall bear the seal of a licensed land surveyor registered in New York. Map shall contain a title block with the name and address of the CONTRACTOR and the seal and signature of the registered surveyor. As-built drawings shall include labeled contour lines, property line locations, horizontal grid systems, cross-sections and details modified to show “as-built” conditions, details and cross-sections not on original drawings, and any field changes of elevations, dimensions, and details.
   3. Indicate locations of physical features on the site including: utilities, roadways, culverts, manholes, utility poles, fences, gates, drainage ditches, monitoring
wells, piezometers, leachate pipes, tanks, bench marks and other significant items.


5. Indicate on a separate drawing: excavation limits and verification sampling points.

6. In addition to providing As-built drawings encompassing the total project site, provide final separate As-built drawings adhering to the above requirements depicting each site parcel individually.

G. Payment Surveys:
1. Surveys required for the verification of payment quantities will be signed and sealed by the professional surveyor.

F. Post Construction Environmental Easement Survey:
1. Submit upon project completion, an Environmental Easement Survey Plan including the following:
   a. Metes and bounds description
   b. Graphic scale
   c. Tax Map Section, Block and Lot
   d. Physical address, consistent with the DEC Agreement/Order/SAC
   e. The name, address, telephone number, signature and certification of the professional land surveyor who performed the survey, his or her official seal and registration number, the date the survey was completed, the dates of all of the surveyor's revisions
   f. Survey boundaries drawn to a convenient scale, with that scale clearly indicated. A graphic scale, shown in feet and meters, must be included.
   g. A legend identifying the symbols and abbreviations used on the survey
   h. Accurately presented diagrams
   i. The point of beginning of the legal description
   j. The correct legal description and acreage
   k. The location of all buildings/monuments/overlaps/encroachments upon the surveyed property with their locations defined by measurement perpendicular to the nearest perimeter boundaries
   l. The location of visible improvements within five feet of each side of boundary lines
   m. Ponds, lakes, springs, rivers or a natural water boundary bordering on or running through the surveyed property. The survey must measure the location of the natural water boundary and note on the survey the date of the measurement.
   n. The environmental easement area with corresponding metes and bounds description and acreage. Include the following statement: "This property is subject to an environmental easement held by the New York State Department of Environmental Conservation pursuant to Title 36 of Article 71 of the New York Environmental Conservation Law. The engineering and institutional controls for this Easement are set forth in
the Site Management Plan (SMP). A copy of the SMP must be obtained by any party with an interest in the property. The SMP can be obtained from NYS Department of Environmental Conservation, Division of Environmental Remediation, Site Control Section, 625 Broadway, Albany, NY 12233 or at "derweb@dec.ny.gov." This reference must be located on the face of the survey and be in at least 15-point type.

2. Environmental Easement Plans shall be submitted in the following formats:
   a. "D" sized copy (24" x 36") of the final signed, stamped map
   b. One 600 DPI scan of the final signed, stamped map
   c. An AutoCAD .dwg or exported .dxf file of the polyline (at a minimum) of the final survey

3. If the deed(s) description differs from the measured bearings/angles/distances, both must be indicated on the survey.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.1 SURVEYING

A. Reference Points:
   1. Refer Section VIII General Conditions, as may be modified by Section IX Supplementary Conditions, for requirements regarding reference points.
   2. DEPARTMENT’s established reference points that are damaged or destroyed by CONTRACTOR will be re-established by DEPARTMENT at CONTRACTOR’s expense. DEPARTMENT may deduct from payments owed CONTRACTOR such amounts as set-offs in accordance with the Contract Documents.
   3. From DEPARTMENT-established reference points, establish lines, grades, and elevations necessary to control the Work. Obtain measurements required for executing the Work to tolerances specified in the Contract Documents.
   4. Establish, place, and replace as required, such additional stakes, markers, and other reference points necessary for control, intermediate checks, and guidance of construction operations.

B. Surveys to Determine Quantities for Payment:
   1. For each application for progress payment, perform such surveys and computations necessary to determine quantities of Work performed or placed. Perform surveys necessary for ENGINEER to determine final quantities of Work in place.
   2. Following soil and sediment excavations, the limits shall be surveyed to document the volumes of material that have been removed, as a base survey for measurement of materials. This survey shall include the locations and
elevations of all final verification samples which were the basis of limiting further excavations.

3. Notify ENGINEER not less than 24 hours before performing survey services for determining quantities to be included in Application for Payment. Unless waived in writing by ENGINEER, perform quantity surveys in presence of ENGINEER or Resident Project Representative (if any).

C. Construction Surveying: Comply with the following:
   1. Alignment Staking: Provide alignment stakes at 50-foot intervals on tangent, and at 25-foot intervals on curves.
   2. Slope Staking: Provide slope staking at 50-foot intervals on tangent, and at 25-foot intervals on curves. Re-stake at every ten-foot difference in elevation.
   3. Structure: Stake-out structures, including elevations, and check prior to and during construction.
   4. Pipelines: Stake-out pipelines including elevations and check prior to and during construction.
   5. Roads, Drives, and Paved Areas: Stake-out roadway, driveway, and paved area elevations at 50-foot intervals on tangent, and at 25-foot intervals on curves.
   6. Cross-sections: Provide original, intermediate, and final staking as required, for site work other locations as necessary for quantity surveys.
   7. Easement Staking: Provide easement staking at 50-foot intervals on tangent, and at 25-foot intervals on curves. Also provide wooden laths with flagging at maximum intervals of 100 feet.
   8. Record Staking: Provide permanent stake at each blind flange and each utility cap provided for future connections. Stakes for record staking shall be material acceptable to ENGINEER.

D. Accuracy:
   1. Establish CONTRACTOR’s temporary survey references points for CONTRACTOR’s use to not greater than second-order accuracy (e.g., 1:10000). Construction staking used as a guide for the Work shall be set at not greater than third-order accuracy (e.g., 1:5000). Basis on which such orders are established shall provide the absolute margin for error specified below.
   2. Horizontal accuracy of easement staking shall be plus or minus 0.1 feet. Accuracy of other staking shall be plus or minus 0.04 feet horizontally and plus or minus 0.02 feet vertically.
   3. Survey calculations shall include an error analysis sufficient to demonstrate required accuracy.

++ END OF SECTION ++
SECTION 01 76 50

NUISANCE CONTROLS, MANAGEMENT, AND CORRECTIVE MEASURES

PART 1 – GENERAL

1.1 SUMMARY

A. This section includes requirements for managing, controlling nuisance issues and associated corrective measures during construction. Consideration of equipment noise and vibration levels shall be part of each stage of project planning.

B. The requirements presented in this specification supplement other nuisance monitoring requirements in the contract, e.g. air monitoring. This specification does not relieve the CONTRACTOR from other contract requirements and where there is a conflict in monitoring requirements, the more stringent action level shall be applied.

C. The CONTRACTOR is responsible for developing means and methods as well as accounting for these requirements or proposing alternate best management practices which meet the intent of these provisions (i.e., minimizing nuisance conditions which may adversely impact the public or the environment through appropriate engineering controls).

1.2 PERFORMANCE REQUIREMENTS

A. The intent of this Section is to document and formalize the CONTRACTOR’S plan for managing, controlling nuisance issues and associated corrective measures during construction per the Contract Documents.

B. The CONTRACTOR shall provide advance notification to the community of any work activities that will generate nuisances in accordance with this specification. The minimum notification period is 48 hours before noisy work is scheduled. Longer notification periods of a week or more may apply to work likely to exceed the Local noise ordinance levels or other levels or at the start of a project.

C. The point of compliance for fugitive dust, turbidity, vibration, noise, lighting or other nuisance management issues will be at the limit of the work zone. At the point of compliance, no visible dust (or visible contrast in water clarity) is allowed. Complaints from the community will result in work stoppage until corrective measures are implemented to the satisfaction of the ENGINEER.

D. The CONTRACTOR shall provide a competent and reliable community relations liaison, who shall not be replaced without written approval of DEPARTMENT. The community relations liaison will be the CONTRACTOR’S representative and shall interface with the ENGINEER’S communications representative and the DEPARTMENT’S Public Participation Specialist. The intent is to increase public awareness and understanding of remedial activities taking place in their community, as well as understand environmental data developed during the project.
1.3 REFERENCES

A. 42 US Code, Chapter 65 Noise Control

B. Town of Lockport General Legislation Chapter 123 Noise

C. City of Lockport General Legislation Chapter 125 Noise

D. Turbidity - 6NYCRR 703.2 - No increase that will cause a substantial visible contrast to natural conditions.

E. Odor - TITLE 6. DEPARTMENT OF ENVIRONMENTAL CONSERVATION CHAPTER III. AIR RESOURCES SUBCHAPTER A. PREVENTION AND CONTROL OF AIR CONTAMINATION AND AIR POLLUTION - Air pollution is the presence of an air contaminant, including odor, "which unreasonably interferes with the comfortable enjoyment of life and property."

F. Fugitive Dust – Clean Air Act – Particulate Matter (PM) Air Quality Standards

G. Vibration – New York State Department of Transportation Engineering Instruction 05-045.

1.4 RELATED WORK SPECIFIED ELSEWHERE

A. Section X Standard Specifications: Section 01 35 29 – Contractor’s Health and Safety Plan

1.5 SUBMITTALS

A. Nuisance Controls and Management Plan as a component of the Site Specific Health and Safety Plan required by Section X Standard Specifications: Section 01 35 29 – Contractor’s Health and Safety Plan
   1. Plan to provide advance notification to community
   2. Nuisance monitoring plan.
   3. Complaint resolution approach (and Summary Form)
   4. Issues of concern with existing and anticipated nuisances must be defined within the Nuisance Control and Management Plan, including CONTRACTOR’s resolution to complete the work of the Contract Documents.

B. The CONTRACTOR shall develop a one page summary of general practices for nuisance management and clearly display on site. Operating hours, delivery times, truck routes, and extra consideration for works during sensitive times could also be included in the summary. Submit the one page summary with the Nuisance Controls and Management Plan as required above.

C. Monitoring Reports shall be submitted to ENGINEER weekly (Informational Submittal).

D. Example community notifications prior to public distribution (Informational Submittal).
E. Complaint documentation within 24 hours of receiving a compliant and as necessary for updates (*Informational Submittal*)

F. Community Relations Liaison Qualifications
   1. The CONTRACTOR will submit resume/qualification of their Community Relations Liaison person as a component of the Nuisance Controls and Management Plan as required above.

**PART 2 – PRODUCTS (NOT USED)**

**PART 3 – EXECUTION**

3.1 COMMUNITY CONSULTATION

A. Community consultation is an essential part of managing nuisances associated with the construction project. All communications shall be coordinated with the ENGINEER and the DEPARTMENT.

B. CONTRACTOR shall:
   1. establish good working relationships with community stakeholders such as nearby residents, the school district, and businesses
   2. give and receive feedback on construction activity and performance during a project
   3. discuss the community’s concerns and be proactive in complaint resolution.

C. As part of a community consultation strategy, neighboring premises shall be given written notification of upcoming work activities in their vicinity. The information should outline the type and duration of works, likely nuisance impacts, and provide contact details (mobile phone number of Community Liaison Person) for feedback and/or complaints resolution.

D. The minimum notification period shall be 48 hours before noisy work is scheduled. Longer notification periods of a week or more may apply to work likely to exceed the Local regulation noise or other levels or at the start of a project.

E. Methods of notification for work and ongoing communication about project progress can include:
   - Letterbox drops
   - Meetings
   - Individual contact
   - Direct emails to all stakeholders

3.2 COMPLAINT RESOLUTION

A. The CONTRACTOR shall immediately notify NYSDEC and the ENGINEER and respond respectfully to a complaint and implement all feasible and reasonable measures to address the issue.
B. It is particularly important to respond when the complaint refers to disturbed sleep and/or noise that is tonal (beeping, metal-on-metal), impulsive (hammering, pile driving) or low frequency (truck engine, heavy machinery).

C. The CONTRACTOR shall have a readily accessible contact point (mobile phone number of Community Liaison Person) for managing complaints. The CONTRACTOR shall call back as soon as possible, and then maintain communication about how the issue is to be resolved.

D. The complaint management process shall be well documented, with details about the following:
   1. The nuisance in question;
   2. The time of the complaint and the person making it;
   3. The person dealing with the complaint and planned corrective action;
   4. How resolution of the complaint is to be communicated to the person who made the complaint, the community and the ENGINEER;
   5. Who shall be contacted if the complaint cannot be resolved; and
   6. The time taken for responses.

3.3 SCHEDULING WORK AND RESPITE PERIODS

A. In general, the instance and duration of work expected to adversely disturb the community should be minimized. This is particularly important for night and other out-of-hours work.

B. Scheduling work to provide respite and avoid sensitive times is a vital part of responsible nuisance management.

C. The following are examples of sensitive ties that may require special consideration:
   1. Resident sleep periods
   2. School activities (e.g. outdoor classes, sporting events, exams, etc.)

D. The CONTRACTOR shall consult with affected parties, such as the examples given above, and then arrange appropriate periods of respite from work likely to disturb them. The scheduled respite times shall then be communicated to the relevant parties.

E. On a typical weekday, more frequent respite periods shall be provided where possible, especially during very disturbing work. For example, a break of 15-20 minutes for every hour of jack-hammering may be a suitable way to manage noise impacts, if there has been appropriate communication.

F. The CONTRACTOR shall weigh the benefits of avoiding sensitive periods against the increased costs and additional time taken on the job. Explaining the various options to affected parties will help develop a fair and balanced approach.

3.4 WORK PRACTICES

A. General
1. **CONTRACTOR** shall communicate nuisance reduction commitments to staff. Workers and sub-contractors shall be trained to follow nuisance management practices. Nuisance management issues shall be integrated into health and safety “tail-gate” meetings.

2. The **CONTRACTOR** shall develop a one-page summary of general practices for nuisance management and clearly display on site. Operating hours, delivery times, truck routes, and extra considerations for works during sensitive times could also be included in the summary. Workers shall be reminded about these commitments during daily “tail-gate” meetings.

3. Monitoring - The **CONTRACTOR** shall periodically check the site and local area for nuisance problems and actively manage nuisance issues before and as they arise.

### B. Noise and Vibration

1. The **CONTRACTOR** shall implement work practices to reduce noise complaints, particularly important at night or during sensitive times.

2. General construction activities shall be carried out in the following ways:
   a. Minimize metal-on-metal contact.
   b. Avoid dropping items from a height.
   c. Use equipment sensibly: Turn off equipment when not in use. Throttle settings shall be reduced if possible.
   d. Require appropriate staff conduct: Staff shall not use loud radios and/or stereos outdoors during sensitive times, such as early in the morning in a residential area.
   e. Shouting or swearing, loud talking, and slamming vehicle doors should be avoided.
   f. Public Announcement (PA) systems are not allowed.
   g. Use noise shields/acoustic curtains around higher noise operations.
   h. Manage truck noise: Noise from trucks is a common issue, especially near residences. Scheduling and management of truck movements is important to reduce issues associated with reverse beepers, engine noise and general off-site activity.

3. Plant and equipment – **CONTRACTOR** shall endeavor to use low-noise, low-vibration well- maintained equipment where feasible and reasonable.
4. Equipment Selection – Consideration of equipment noise and vibration levels shall be part of each stage of project planning and contract specifications.

5. The CONTRACTOR shall evaluate different types of equipment that do the same job and compare the noise and vibration level data. Noise and vibration emission labels are often provided on equipment and can be used to assist in this process. The following items shall be considered in the evaluation; high-quality mufflers, acoustic enclosures, low-noise tool bits/blades and inquire from suppliers about lower-noise equipment.

6. Alternative equipment - Compressors for pneumatic equipment shall be silenced, enclosed and located appropriately. Hydraulic or electrical equipment shall be considered as viable alternatives. Care must be taken with the location of any generators and supply lines when electrical equipment is proposed to be used to replace diesel or petrol engines. Impacts from noisy excavation and demolition works shall be reduced by alternative work methods.

7. Maintenance - A key commitment for any project is to ensure that:
   a. Equipment is not operated if maintenance or repairs would eliminate or significantly reduce a characteristic of noise, vibration or other disturbance resulting from its operation.
   b. CONTRACTOR shall regularly check the condition of mufflers, enclosures and air lines, for example, to make sure they are in good working order and that there are no gaps or leaks. An ongoing inspection and maintenance process shall be established and included in the Work Plan.
   c. Equipment that is causing excessive nuisance impacts in a manner that is not typical for the equipment shall be removed from the site.

8. Alternatives to traditional “beeper” alarms
   a. The traditional ‘beeper’ alarms for mobile equipment can create a nuisance during projects where there is a lot of movement (such as prolonged use of scissor lifts) or if works are being conducted at night.
   b. Some examples of alternatives that are less disturbing include:
   c. ‘Smart alarms’ that adjust their volume depending on the ambient level of noise. These are particularly useful during operations in quieter suburban areas, where other noise on the site is less, or when works take place during quieter periods such as early morning.
d. ‘Broadband’ or ‘quacker’ alarms. These emit a less annoying sound and are more directional. This means the sound is focused to the area of concern and is less likely to travel to noise-sensitive areas.

e. The use of these alternative technologies must be:
   1) determined by a competent person based on an assessment of the site, its conditions and on the machines involved
   2) compatible with the machines so it does not adversely affect their operation
   3) accompanied by specific procedures for installation and maintenance to ensure correct operation
   4) communicated to all site staff to ensure they are aware of the new alarm and how it works.

f. The requirements of relevant occupational health and safety must be complied with in all cases.

9. Site planning, barriers and layout

a. Disturbances shall be managed by appropriately arranging site orientation and operations. These principles need to be addressed during early project stages, when there is greater flexibility to plan for nuisance management.

10. Managing disturbances from trucks and mobile equipment

a. The site layout shall be arranged to avoid the need for truck reversing. Drive through parking and deliveries with a one-way thoroughfare is one method that shall be investigated.

b. An area away from residential dwellings shall be selected for off-site truck parking when vehicles arrive before site opening hours. ENGINEER may require that trucks wait away from the site in a less sensitive area or other areas/options may be suggested depending on the nature of the site.

c. For larger projects, traffic controllers can be used to direct trucks that arrive out of approved times or to instruct drivers to turn off their engines when stationary.
d. The CONTRACTOR shall designate a truck route that minimizes noise impacts and clearly communicate to drivers the requirements for arrival times, vehicle movements, idling reduction and general conduct, and/or include these requirements as a condition of the sub-contract.

e. Deliveries to construction sites shall be scheduled to occur only within the allowed times. Fewer vehicles with larger loads, rather than a number of smaller vehicles, can help reduce noise impacts. Options may be limited by site access and scale, with larger sites usually providing a greater level of flexibility.

f. Other considerations, such as safety and traffic impacts, will apply when looking at truck access and routes.

11. Location of plant and equipment

a. The CONTRACTOR shall aim to locate plant and equipment away from sensitive sites, thereby maximizing the distance from affected parties. When plant and equipment needs to be located close to noise sensitive areas, restricting the hours of operation should be considered.

b. When possible, noisy fabrication work shall be done off site and transported to the site at a later date.

12. In most cases, vibration induced by typical construction equipment may not result in adverse effects on people or structures. Noise from the equipment typically overshadows any meaningful ground vibration effects on people. Some equipment, however, including vibratory rollers, can create high vibration levels.

13. Because of the nature of these types of devices, the options for reducing vibration may be limited. Maximizing the distance between the source and receiver should be considered to the extent practical. Conducting work when most people are not in the area (e.g., at work) or when sensitive equipment is not operating can avoid or minimize adverse impacts.

14. In some circumstances, temporary relocation of residents during these operations may be appropriate. In the absence of measures that can physically reduce induced ground vibration, informing the public about the project and potential vibratory impacts should be performed to avoid adverse reactions from the public. The CONTRACTOR must be sensitive to the needs of the community, including testing timeframes at the schools and other nearby activities which may result in adverse reactions from the public.
15. Requiring trucks delivering and picking up at the site to reduce unnecessary engine idling.

C. Fugitive Dust

1. Control of dust will be a high priority during remediation activities. The primary mechanism for dust control will be the use of water trucks with a spray bar and hose(s) or other appropriate methods for the work being performed. Only potable water will be used for dust control purposes. Proactive controls will be instituted to reduce the amount of dust generation during Site activities, including enforcement of low speed limits for vehicular traffic, decontamination of trucks leaving the remediation work areas and height limits for stockpiles, if applicable.

2. The CONTRACTOR will implement a dust control training program for all Site personnel. This training program will review the potential sources of dust, individual responsibilities, and actions for controlling dust as described in this plan. The training will emphasize the importance of dust control to the overall success of the remedial activities and familiarize Site personnel with the air monitoring requirements and appropriate dust control procedures that must be adhered to in accordance with this plan to minimize dust generation.

3. Bulk material piles will not be created other than while gathering material to load into trucks (e.g., pulling soil into a pile for the excavator to load into trucks). If any bulk material piles are left on the site overnight (e.g., due to equipment failure, transportation delays, etc.), they will be tarped as necessary to limit windblown dust. All trucks or containers being utilized for transport and disposal of excavated material at the Site are required to be fitted with a tarpaulin or solid, sliding or slot-top type covers with no gaps when fully deployed. Trucks or containers shall be covered immediately after loading and are to remain covered throughout the transportation and disposal of excavated material. The cover must not contact the excavated material and must be installed in such a way to prevent wind from entering over the leading edge of the trailer rim.

4. The CONTRACTOR shall conduct operations and maintain the Site as to minimize the creation and dispersion of visible dust. Clean water, provided by the CONTRACTOR, shall be applied to the Site as necessary to prevent dust during excavation, loading/unloading, and backfilling activities. Excavation areas and on-site roadways will be kept damp, as necessary, without creating ponding or mists that travel beyond the defined boundaries of the work. The watering operations shall be sufficient to control fugitive dust. Tanker trucks will be utilized to provide and apply clean water as needed.
5. Water shall be applied in a manner to prevent runoff. As a contingency measure, the CONTRACTOR will have erosion and sedimentation controls, such as silt fencing, sediment logs, or manhole silt screens, installed as necessary to manage runoff.

6. Transfer points refer to any time material is loaded or unloaded during removal activities. For the purposes of this project, the primary transfer points of concern will be the transfer of soil material from the excavator or processing area to a waiting truck. The secondary transfer points of concern will be the unloading of the clean soil for use in backfilling of excavated areas. At all transfer points, the following guidelines will be maintained:
   a. During loading of impacted soil, the material must be moist during the transfer, and the transfer shall be into an overhead truck trailer only. The material drop into the trailer must not exceed 4 feet.
   b. All trucks entering and leaving the Site will adhere to the posted speed limit, which shall be no more than 8 miles per hour (mph).
   c. All trucks shall adhere to the established tarping policy.
   d. All trucks leaving unpaved areas to paved areas of the public ROW (i.e., sidewalk or street), whether full or empty, will be visually inspected for loose material. Stabilized construction exits (e.g., 3- to 6-inch cobblestone or rip rap placed on top of a geotextile) will be used to assist with cleaning of truck tires as the vehicles leave unpaved areas. Any loose material is to be removed and placed into the truck trailer.

7. In order to keep roadways clean and free of accumulation, the CONTRACTOR will coordinate with the City of Lockport, Town of Lockport, and the local waste disposal facility for routine street sweeping during removal activities. The street sweeper must be equipped with a water spray and vacuum system to prevent fugitive dust. Street sweeping must be completed at the end of every day or as needed, but at a minimum of once a day.

8. Sidewalks and public rights of way, where trucks will need to cross the sidewalk to enter/exit the Site, will be maintained in a “broom clean” condition at all times by using a skid steer loader (e.g., BobCat) equipped with a power broom or manual tools (e.g., push broom, shovels, etc.).

9. All trucks are to take the most efficient and direct route to the disposal facility as possible.

10. Spraying dusty wastes with water as they are unloaded.
11. Ensuring that street sweeping operations use enough water to avoid kicking up dust.

D. Disruptive Lighting

1. Lighting Trespass - The lighting system shall be designed to effectively light the work area without spilling over to adjoining property. When, in the opinion of the Engineer, the lighting is disturbing adjoining property, the Contractor shall modify the lighting arrangement or add hardware to shield the light trespass.

2. Every effort should be made to control artificial light escaping from a site for example the fitting of diffusers/guards, ensuring there is no light overspill into neighboring properties.

3. All lighting shall be designed, installed, and operated to avoid glare that affects traffic on the roadway or that causes annoyance or discomfort for residences. The Contractor shall locate and aim lighting fixtures to provide the required level of illumination and uniformity in the work zone without the creation of objectionable light trespass.

E. Odor

1. Proper Drainage: Standing water is a potential source of odors. The operations area will be on a surface that is sloped to facilitate drainage and prevent standing water. The grade will be maintained to prevent ponding. General spill control programs and curbing will be in place as appropriate. The material handling areas are covered by a canopy and protected from storm water if needed to control ponding of water which has been in contact with contaminated sediments.

2. Personnel training: Personnel will be trained in the proper use of equipment. Potential hazards and safety features will be stressed as well as handling procedures to minimize the potential production of odors, such as leaving stockpiled sediments uncovered unnecessarily.

3. Some of the operating procedures that can help reduce odors include:
a. “First-in, first-out” waste handling practices that keep waste on site only for short periods of time.

b. Removing all waste from loading areas by the end of each operating day so that these surfaces can be swept clean and washed down as needed.

c. “Good housekeeping” measures, including regular cleaning and disinfecting of surfaces if appropriate and equipment that come into contact with waste.

d. Water misting and/or deodorizing systems.

4. Below are the activities that can cause odor nuisances on-site along with Reasonable Available Control Measures & Methods to help reduce potential odors:

a. Movement of Transport Trucks Entering/Exiting Site - Hauling materials in properly tarped or watertight containers to prevent odor; Limit haul trucks to 3 minutes idle time; and applying foam suppressant such as BioSolve.

b. Equipment Operating On-Site - Turning off equipment that is not in active use; Limiting the amount of equipment used at one time while on-site; and Applying foam suppressant such as BioSolve.

c. Excavated Materials - Limiting amount of exposed areas or amount of time materials are exposed to the open atmosphere; and Applying foam suppressant such as BioSolve.

d. Soil/Debris moved by equipment to Stockpile Areas - Limiting amount of exposed areas or amount of time materials is exposed to the open atmosphere; Turning off equipment that is not in active use; Limiting the amount of equipment used at one time while on-site; and Applying foam suppressant such as BioSolve.

e. Stockpiles - Covering stockpiles and material after activity ceases with Poly Sheeting & securing with sandbags (or equivalent); and Applying foam suppressant such as BioSolve.

f. Removed water prior to treatment or disposal - Setting up site drainage & preventing standing water.
Work Zones (Exclusion Zone) - Performing Housekeeping; Daily cleaning up (Free of trash, garbage, & debris); Properly disposing of any odorous material; and Applying foam suppressant such as BioSolve.

3.5 CORRECTIVE MEASURES

F. Nuisance conditions which represent a potential health and safety concern and/or migration of contaminated materials (e.g., visible dust or visible contrast from turbidity) will result in an immediate stoppage of the work.

G. Following a work stoppage, appropriate corrective measures as determined by Engineer will be implemented prior to work resuming.

H. Chronic or repeated incidents of nuisance issues will result in the disallowance of a day of compensation for site services and health and safety.

I. A written corrective measures plan will be submitted for any work stoppage, or chronic or repeated incidents of nuisance issues, if requested by the Engineer.

+ + END OF SECTION + +
SECTION 01 77 19

CLOSEOUT REQUIREMENTS

PART 1 – GENERAL

1.1 GENERAL

A. Scope:
   1. Close-out procedures shall conform with Section VII General Conditions: 13 for:
      a. Substantial Completion.
      b. Final inspection.
      c. Request for final payment and acceptance of the Work.
   2. Inspections shall conform with Section X Standard Specifications: Section 01 77 23 – Inspections.

1.2 SUBMITTALS

A. Action Submittals:
   1. Submit a written notification of Substantial Completion with list of items that are incomplete, and a request that ENGINEER perform the substantial completion inspection and issue a certificate of Substantial Completion, upon reaching Substantial Completion for all or part of the Work.
   2. Submit written notification of Final Completion and a request that ENGINEER perform the final completion inspection, upon reaching Final Completion for all or part of the Work.
   3. Submit a request for Final Application for Payment and Acceptance of the Work in accordance with Section VIII General Conditions: Article 13 and this Section. Include required documentation as outlined in this Section and the Contract Documents.

1.3 SUBSTANTIAL COMPLETION

A. Substantial Completion – General:
   1. Prior to requesting Substantial Completion, perform the following for the substantially completed Work:
      a. Materials and equipment for which Substantial Completion is requested shall be fully ready for their intended use, including full operating and monitoring capability in automatic and manual modes.
      b. Complete field quality control Work, including testing at the Site, indicated in Specifications Sections for individual materials and equipment items. Submit results of, and obtain ENGINEER’s acceptance of, field quality control tests required by the Contract Documents.
      c. Submit and obtain ENGINEER’s acceptance of final operations and maintenance manuals.
d. Obtain and submit to ENGINEER all required permits, inspections, and approvals of authorities having jurisdiction for the substantially completed Work to be occupied and used by DEPARTMENT.

e. Complete other tasks that the Contract require be completed prior to Substantial Completion.

2. Procedures for requesting and documenting Substantial Completion are in Section VIII General Conditions: Article 13.6 and Section X Standard Specifications: Section 01 77 23 – Inspections.

3. Sample letter for CONTRACTOR to request inspection for Substantial Completion is attached to this Specifications Section. Use the model language of the sample letter, modified to suit the Project.

4. Unless decided otherwise by DEPARTMENT and ENGINEER, form of certificate of Substantial Completion will be EJCDC® C-625, “Certificate of Substantial Completion” (2013 edition), prepared by ENGINEER.

5. Refer to Section VIII General Conditions: Article 13.8, for requirements regarding consent of surety to partial release of or reduction in retainage.

1.4 FINAL INSPECTION

A. Final Inspection shall be performed in accordance with Section VIII General Conditions: Article 13.9:

1. Prior to requesting final inspection, CONTRACTOR verify that all of the Work is fully complete and ready for final payment. A checklist for this purpose is attached to this Specifications Section.

2. Sample letter for CONTRACTOR to request final inspection is attached to this Specifications Section. Use the model language of the sample letter, modified to suit the Project.

3. Procedures for requesting and documenting the final inspection are in Section VIII General Conditions, as may be modified by Section IX Supplementary Conditions, and as augmented in this Section.

1.5 REQUEST FOR FINAL PAYMENT AND ACCEPTANCE OF THE WORK

A. Procedure:

1. Submit request for final payment in accordance with Section VI Agreement and Section VIII General Conditions, as may be modified by Section IX Supplementary Conditions, and this Section.

2. Acceptance of the Work:

a. Upon ENGINEER’s receipt of the final Application for Payment, accompanied by other required Contract closeout documentation in accordance with the Contract Documents, ENGINEER will issue to DEPARTMENT and CONTRACTOR a notice of acceptability of the Work, in accordance with Section VIII General Conditions, as may be modified by Section IX Supplementary Conditions.

b. Nothing other than receipt of such notice of acceptability from ENGINEER constitutes acceptance of the Work.

B. Request for final payment shall include:
1. Documents required in Section VIII General Conditions, as may be modified by Section IX Supplementary Conditions.
2. List of all disputes that CONTRACTOR believes are unsettled.
3. Consent of Surety to Final Payment:
   a. Acceptable form includes AIA® G707™, “Consent of Surety to Final Payment” (1994 or later edition), or other form acceptable to DEPARTMENT.
4. Releases or Waivers of Lien Rights:
   a. When submitting releases or waivers of Lien rights, furnish release or waiver by CONTRACTOR and each Subcontractor and Supplier that provided CONTRACTOR, Subcontractor, or Supplier with labor, material, or equipment totaling $1,000.00 or more for the Contract.
   b. Furnish final list of Subcontractors and Suppliers, using the form included in Section 01 29 76, Progress Payment Procedures, indicating final amount of the associated subcontract or purchase order for each. Include on the list all lower-tier Subcontractors and Suppliers retained by Subcontractors and Suppliers with direct subcontract or purchase order with CONTRACTOR.
   c. Each release or waiver of Lien shall be signed by an authorized representative of the entity submitting release or waiver of Lien, and shall include CONTRACTOR’s, Subcontractor’s, or Supplier’s (as applicable) corporate seal, when applicable.
   d. Release or waiver of Lien may be conditional upon receipt of final payment.
5. Affidavits:
   a. In lieu of the release or waiver of Liens, CONTRACTOR may submit the following, for CONTRACTOR and each Subcontractor and Supplier that provided CONTRACTOR, Subcontractor, or Supplier with labor, material, or equipment totaling $1000 or more, to DEPARTMENT’s satisfaction:
      1) Affidavit of payment of debts and claims. Acceptable form includes AIA® G706™, “Contractor’s Affidavit of Payment of Debts and Claims” (1994 or later edition), or other form acceptable to DEPARTMENT, and;
      2) Affidavit of release of Liens. Acceptable form includes AIA® G706ATM, “Affidavit of Release of Liens” (1994 or later edition), or other form acceptable to DEPARTMENT.
   b. Affidavits and supporting documents furnished under this Paragraph 1.4.B.6 shall comply with the requirements of the General Conditions, as may be modified by the Supplementary Conditions.
   c. Each affidavit furnished shall be signed by an authorized representative of the entity furnishing the affidavit, and shall include CONTRACTOR’s,
Subcontractor’s, or Supplier’s (as applicable) corporate seal, when applicable.

6. Evidence satisfactory to DEPARTMENT that all title issues have been resolved such that title to all Work, materials, and equipment has passed to DEPARTMENT free and clear of Liens or other title defects or will so pass upon final payment.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.1 ATTACHMENTS

A. The documents listed below, following this Section’s “End of Section” designation, are part of this Specifications Section:
   1. Sample letter for CONTRACTOR’s use in requesting inspection for Substantial Completion (two pages).
   2. Sample partial checklist to identify readiness for final inspection (four pages).
   3. Sample letter for CONTRACTOR’s use in requesting final inspection (one page).

B. In the model language of the attached sample letters for the CONTRACTOR to request inspection for Substantial Completion and the final inspection, italicized language in brackets, e.g., “[insert date]” indicates instructions to the drafter of the letter and often indicates specific information to be inserted by CONTRACTOR; do not include bracketed, italicized text in the final version of the letter(s) prepared for the Project. Non-italicized language in brackets is optional language; use the appropriate language to complete the actual letter for the Project and edit where required to suit the specific circumstances.

++ END OF SECTION ++
SAMPLE LETTER FOR CONTRACTOR’S USE IN REQUESTING INSPECTION FOR SUBSTANTIAL COMPLETION

SENT VIA E-MAIL AND U.S. CERTIFIED MAIL/RETURN RECEIPT REQUESTED

[Date]

[Name of Engineer’s contact person]
[Engineer’s Name]
[Street address]
[City, state, postal code]

Subject:
[Project name, Contract designation]
Request for Inspection for Substantial Completion

Dear [addressee]:

In our opinion, [all of] [or] [a portion of] the Work under the above-referenced Contract is substantially complete as of [insert month, day, year on which Substantial Completion was achieved]. [The specific portion of the Work that we believe is substantially complete is [insert identification of that portion of the Work that is substantially complete].]

Enclosed is our listing of uncompleted Work items (“punch list”). In accordance with the General Conditions, we hereby request: 1) That the Engineer schedule and perform the inspection for Substantial Completion as soon as possible, and 2) Issuance of the certificate of Substantial Completion.

In accordance with the General Conditions, upon Substantial Completion, we propose the following relative to apportionment of responsibilities between the DEPARTMENT and the CONTRACTOR:

1. Security, Protection, Insurance:
   a. Site Security: [insert proposal; address whether DEPARTMENT or CONTRACTOR will be responsible for security of the Site].
   b. Protection of the Substantially Completed Work: [insert proposal; address whether DEPARTMENT or CONTRACTOR will be responsible for protection].
   c. Property Insurance: [insert proposal; typically DEPARTMENT assumes responsibility for property insurance upon Substantial Completion]

2. Operation and Maintenance:
   a. Operation: [insert proposal; address whether DEPARTMENT or CONTRACTOR will be responsible for operating the substantially completed Work].
b. Maintenance: [insert proposal; address whether DEPARTMENT or CONTRACTOR will be responsible for maintaining the substantially completed Work].

3. Utilities: [for each of the following, indicate whether DEPARTMENT or CONTRACTOR will be responsible for utilities and services, or whether responsibility will be shared; if shared, indicate proposed cost-sharing]
   a. Electricity: [insert proposal].
   b. Natural Gas/Fuel/Heating: [insert proposal].
   c. Water Supply: [insert proposal].
   d. Wastewater: [insert proposal].
   e. Communications (Telephone, Internet, Video): [insert proposal].

In accordance with the General Conditions, we understand that the Contract’s correction period for the Work covered by the certificate of Substantial Completion commences on the Substantial Completion date documented in said certificate.

Should you have questions or comments regarding this notice, please contact [the undersigned] [or] [insert other contact person’s name], at [insert telephone number and e-mail address].

Sincerely,

[CONTRACTOR’s company name]

[Signatory name]
[Signatory’s title]

Attachments:
Preliminary list of uncompleted Work items (“punch list”; [#] pages)

Copies:
[DEPARTMENT’s project manager]
## SAMPLE CHECKLIST TO IDENTIFY READINESS FOR FINAL INSPECTION

**Project:** ____________________________________________
**Contract:** __________________________________________
**Contractor:** _________________________________________

<table>
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<tr>
<th>Item No./Description</th>
<th>Completed/Date</th>
<th>In Progress</th>
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<th>Not Applicable</th>
<th>Target Date</th>
<th>Responsible Entity/Person</th>
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<tr>
<td>1. All Shop Drawings, Samples, and Submittals approved by Engineer</td>
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<td>2. Final services completed by Suppliers</td>
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<td>4. Permits closed out and regulatory compliance transitioned from construction to</td>
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<td>5. All outstanding change issues are addressed and all Change Proposals submitted</td>
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<td>6. All Claims are resolved</td>
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<td>7. All defective Work of which Contractor is aware has been corrected in accordance with the Contract Documents</td>
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<td>8. Issues related to Constituents of Concern and potential Hazardous Environmental Condition have been fully addressed</td>
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<td>9. All spare parts, tools, and extra stock materials have been furnished in accordance with the Contract Documents, and documentation thereof submitted to Engineer</td>
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<td>10. All final Operations &amp; Maintenance manuals have been submitted and accepted by Engineer</td>
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<td>11. Manufacturer warranties and</td>
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<td>software license(s) furnished</td>
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<td>12. Instruction and training of operations and maintenance personnel is complete and records of training submitted</td>
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<td>13. MBE/WBE/DBE compliance report(s) submitted (when applicable)</td>
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<td>14. All field engineering submittals, including survey data, furnished</td>
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<td>15. All Work on “punch list” is complete in accordance with the Contract Documents</td>
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<td>16. All record documents submitted to and accepted by Engineer</td>
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<td>17. Contractor is fully demobilized from Site</td>
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<td>18. All Site restoration is complete</td>
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<td>19. Final cleaning of all work areas is complete</td>
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<td>20. Lien waivers or affidavits of payment obtained from Subcontractors and Suppliers</td>
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<td>21. Evidence of Contractor liability insurance furnished for correction period</td>
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<td>22. All other required Contract closeout documents obtained</td>
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SAMPLE LETTER FOR CONTRACTOR’S USE IN REQUESTING
FINAL INSPECTION

SENT VIA E-MAIL AND U.S. CERTIFIED MAIL/RETURN RECEIPT
REQUESTED

[Date]

{Name of Engineer’s contact person}
[Engineer’s Name]
[Street address]
[City, state, postal code]

Subject:
[Project name, Contract designation]
Request for Final Inspection

Dear [addressee]:

In our opinion, all of the Work under the above-referenced Contract is complete and ready for final payment as of [insert month, day, year on which final completion was achieved]. In accordance with the General Conditions, we hereby request that the Engineer schedule and perform the final inspection as soon as possible. Upon successful completion of the final inspection, we will submit our final Application for Payment accompanied by the required Contract closeout documentation in accordance with the Contract Documents.

Should you have questions or comments regarding this notice, please contact [the undersigned] [or] [insert other contact person’s name], at [insert telephone number and e-mail address].

Sincerely,

[Contractor’s company name]

[Signatory name]
[Signatory’s title]

Attachments:
None

Copies:
[DEPARTMENT’s project manager]
PART 1 – GENERAL

1.1 DESCRIPTION

A. Scope:
   1. This Section includes requirements for the Substantial Completion, Final Completion, and any specified Warranty inspections and is coordinated with the payment provisions of the Section VIII General Conditions: Articles 13.6 through 13.13.
   2. When CONTRACTOR considers all or part of the Work ready for its intended use, CONTRACTOR shall notify DEPARTMENT and ENGINEER in writing as required by Section X Standard Specifications: Section 01 77 19 – Closeout Requirements that the Work specified is substantially complete. Within a reasonable time thereafter, not to exceed 30 days, DEPARTMENT, CONTRACTOR and ENGINEER shall make an inspection of the Work, or portion thereof, to determine status of completion. A tentative certificate of Substantial Completion shall fix the date of Substantial Completion, with an attached list of items to be completed or corrected prior to final payment.
   3. Shortly before the end of the Substantial completion period required under Section VIII General Conditions, ENGINEER will schedule with DEPARTMENT and CONTRACTOR the inspection and will advise DEPARTMENT and CONTRACTOR in writing of the date and time for the inspection.

B. CONTRACTOR’s project manager shall attend the inspection.

C. Upon written notice from CONTRACTOR that the entire Work or agreed portion is complete as required by Section X Standard Specifications: Section 01 77 19 – Closeout Requirements, ENGINEER will make a final inspection with DEPARTMENT and CONTRACTOR. ENGINEER will notify CONTRACTOR in writing of all particulars in which this inspection reveals that work is either accepted or incomplete or defective.

D. After the final inspection, CONTRACTOR shall submit “final” Application for Payment in accordance with the final Application for Payment procedures of Section VIII General Conditions, as may be modified by Section IX Supplementary Conditions, Section X Standard Specifications: Section 01 77 19 – Closeout Requirements, and other Specifications, including furnishing all required Contract closeout documentation and completion of all Work except for the inspection and associated correction Work (if any). DEPARTMENT will release remaining retainage withheld for the inspection following the inspection and completion of
correction Work (if any), in accordance with progress payment procedures of the Contract, except that consent of surety to final payment shall accompany the last Application for Payment.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

++ END OF SECTION ++
PART 1 – GENERAL

1.1 DESCRIPTION

A. Scope:
1. This Section includes requirements for Project record documents, to supplement the requirements of the Section VI Agreement including Section VIII General Conditions, as may be modified by Section IX Supplementary Conditions.
2. CONTRACTOR shall provide all labor, materials, equipment, and services to maintain and submit to ENGINEER Project record documents in accordance with the Contract Documents.
3. Supplemental requirements to those stated in Section VIII General Conditions: Article 5.19 for recording of field modifications made during construction, to be marked on a clean set of Contract documents by the Contractor (As-Built Documents) and for preparing Supplemental Record Drawings by the Surveyor to be submitted to the DEPARTMENT and ENGINEER. The As-Built Documents and Supplemental Record Drawings shall constitute the Project Record Documents.

B. Maintenance of Record Documents:
1. Maintain in CONTRACTOR’s field office, in clean, dry, legible condition, complete sets of the following record documents: Drawings, Specifications, Addenda, written amendments, Change Orders, Proposed Change Orders, field test records, construction photographs, Field Orders and written interpretations and clarifications in good order and annotated to show all changes made during construction. Contractor will be required to review with Engineer the status of all as-built documents in connection with Engineer’s evaluation of an Application for Payment. All changes from the contract which are made in the work, or additional information which might be uncovered in the course of construction shall be accurately and neatly recorded as they occur by means of details and notes.
2. Provide files and racks for proper storage and easy access to record documents. File record documents in accordance with the edition of the Construction Specification Institute’s MasterFormat™ used for organizing the Project Manual, unless otherwise accepted by ENGINEER.
3. Promptly make record documents available for observation and review upon request of ENGINEER or DEPARTMENT. Requirements for review of record documents status as a condition precedent to progress payments is in Section X Standard Specifications: Section 01 29 73 – Bid Breakdown (Schedule of Values).
4. Maintain in Contractor’s field office in clean, dry, legible condition complete sets of the following:
   a. Drawings
   b. Specifications
   c. Addenda
   d. Approved Shop Drawings
   e. Samples, Photographs
   f. Change Orders
   g. Other modifications to Contract Documents
   h. Test Records
   i. Survey Data
   j. Field Orders
   k. Other documents pertinent to Contractor’s work
   l. Contractor Daily Work Reports

5. Do not use record documents for any purpose other than serving as Project record. Do not remove record documents from CONTRACTOR’s field office without ENGINEER’s approval.

6. Make documents available at all times for inspection by ENGINEER and DEPARTMENT.

1.2 SUBMITTALS

A. Closeout Submittals: Submit the following:
   1. Preliminary Record Documents:
      a. The Contractor shall prepare As-Built Documents and the Surveyor shall prepare Supplemental Record Drawings. These documents (Project Record Documents) shall be submitted to the ENGINEER following substantial completion of the work (within 7 calendar days) for review and approval.
      b. These documents shall be neat, legible and accurate.
      c. If upon review, the documents are found to contain errors and/or omissions, they shall be returned to the Contractor and or Surveyor for corrections.
      d. The Contractor and/or Surveyor shall complete the corrections and return the drawings to the ENGINEER within 10 days for subsequent review.
      e. Submit certified PDF electronic files.
      f. Submit both printed record documents and electronic record documents, in accordance with Section X Standard Specifications: Section 01 31 26 – Electronic Communication Protocols.
      g. Submit record documents with transmittal letter on CONTRACTOR letterhead in accordance with requirements in Section X Standard Specifications: Section 01 33 00 – Submittal Procedures.
   2. Certifications:
      a. Record documents submittal shall include certification, with original signature of official authorized to execute legal agreements on behalf of CONTRACTOR, reading as follows:
“[Insert Contractor’s corporate name] has maintained and submitted Project record documentation in accordance with the General Conditions and Supplementary Conditions, Section 01 78 39, Project Record Documents, and other elements of Contract Documents, for the New York State Department of Environmental Conservation, Old Upper Mountain Road Site, Remedial Action, Lockport, New York. We certify that each record document submitted is complete, accurate, and legible relative to the Work performed under our Contract, and that the record documents comply with the requirements of the Contract Documents.

[Provide signature, print name, print signing party’s corporate title, and date]”

1.3 RECORDING CHANGES

A. Recording Changes – General:
1. At the start of the Project, label each record document to be submitted as, “PROJECT RECORD” using legible, printed letters. Letters on record copy of the Drawings shall be two inches high.
2. Keep record documents current consistent with the progress of the Work. Make entries on record documents within two working days of receipt of information required to record the change.
3. Do not permanently conceal the Work until required information has been recorded for Project record documents.
4. Accuracy of record documents shall be such that future searches for items shown on the record documents may rely reasonably on information obtained from ENGINEER-accepted record documents.
5. Marking of Entries:
   a. Use erasable, colored pencils (not ink or indelible pencil) for marking changes, revisions, additions, and deletions to record documents.
   b. Clearly describe the change by graphic line and make notations as required. Use straight-edge to mark straight lines. Writing shall be legible and sufficiently dark to allow scanning of record documents into legible electronic files in portable document format (“.PDF”).
   c. Date each entry on record documents.
   d. Indicate changes by drawing a “cloud” around the change(s) indicated.
   e. Mark initial revisions in red. In the event of overlapping changes, use different colors for subsequent changes.

B. Drawings:
1. Record changes on copy of the Drawings. Submittal of CONTRACTOR-originated or -produced drawings as a substitute for recording changes on a copy of the Drawings is unacceptable.
2. Record changes on plans, sections, elevations, schematics, schedules, and details as required for clarity, making reference dimensions and elevations (to Project datum) for complete record documentation.

3. Record actual construction including:
   a. Installations of any kind or description known to exist within the construction area. The locations shall include dimensions to permanent features.
   b. The location and dimensions of any changes within the design features of any kind or description known to exist within the construction area. The locations shall include dimensions to permanent features.
   c. Correct grade or alignment of roads, structures, utilities, or project components.
   d. Correct elevations.
   e. Changes in details or dimensions.
   f. The topography and grades of all drainage structures installed or affected as part of the project construction.
   g. Additional information obtained from working drawings.
   h. Where contract drawings or specifications allow options, only the option selected for construction shall be shown on the As-Built Documents.
   i. Additional work ordered by the ENGINEER or DEPARTMENT.
   j. Depths of various elements of foundation in relation to datum.
   k. Horizontal and vertical location of underground utilities and appurtenances referenced to permanent surface improvement.
   l. Location of internal utilities and appurtenances concealed in construction referenced to visible and accessible features of structure.
   m. The Surveyor retained by the Contractor shall prepare Supplemental Record Drawings (see Section X Standard Specifications: Section 01 73 00 – Field Engineering). A topographic survey of the site prior to and following earthwork. The survey should, at a minimum, show ground surface elevations on the specified grid and at all grade changes and also indicate the thickness of cover layers. The survey should adequately extend beyond the limits of work to properly overlap existing conditions. Locations and elevations of all groundwater monitoring wells and survey control points.

4. Recording Changes for Schematic Layouts:
   a. In some cases, on the Drawings, arrangements of conduits, circuits, piping, ducts, and similar items are shown schematically and are not intended to portray physical layout. For such cases, the final physical arrangement shall be determined by CONTRACTOR subject to acceptance by ENGINEER.
   b. Record on the Project record documents all revisions to schematics on the Drawings, including: piping schematics, ducting schematics, process and instrumentation diagrams, control and circuitry diagrams, electrical one-line diagrams, motor control center layouts, and other schematics when included in the Drawings. Show and indicate actual locations of...
equipment, lighting fixtures, in-place grounding system, and other pertinent data.
c. When dimensioned plans and dimensioned sections or elevations on the Drawings show the Work schematically, indicate on the record documents, by dimensions accurate to within one inch in the field, centerline location of items of Work such as conduit, piping, ducts, and similar items
1) Clearly identify each item of the Work by accurate notations such as “cast iron drain”, “rigid electrical conduit”, “copper waterline”, and similar descriptions.
2) Show by symbol or by note the vertical location of each item of the Work; for example, “embedded in slab”, “under slab”, “in ceiling plenum”, “exposed”, and similar designations. For piping not embedded, also indicate elevation dimension relative to Project elevation datum.
3) Descriptions shall be sufficiently detailed to be related to the Specifications.
d. ENGINEER may furnish written waiver of requirements relative to schematic layouts shown on plans, sections, and elevations when, in ENGINEER’s judgment, dimensioned layouts of Work shown schematically will serve no useful purpose. Do not rely on such waiver(s) being issued.

5. Supplemental Drawings:
a. In some cases, drawings produced during construction by ENGINEER or CONTRACTOR supplement the Drawings and shall be included with Project record documents submitted by CONTRACTOR. Supplemental record drawings shall include drawings or sketches that are part of Change Orders, Work Change Directives, and Field Orders and that cannot be incorporated into the Drawings because of space limitations.
b. Supplemental drawings submitted with record drawings shall be integrated with the Drawings and include necessary cross-references between drawings. Supplemental record drawings shall be on sheets the same size as the Drawings.
c. When supplemental drawings developed by CONTRACTOR using computer-aided drafting/design (CADD) software are to be included in record drawings, submit electronic files for such drawings in accordance with Section X Standard Specifications: Section 01 31 26 – Electronic Communication Protocols, as part of record drawing submittal. Label such files, “Supplemental Record Drawings”, including with CONTRACTOR’s name, Project name, and Contract designation.

C. Specifications and Addenda:
1. Mark each Specifications Section to record:
a. Manufacturer, trade name, catalog number, and Supplier of each material and equipment item actually provided.
b. Changes made by Addendum, Change Orders, Work Change Directives, and Field Orders.
1.4 ELECTRONIC FILES FURNISHED BY ENGINEER

A. CADD files of the Drawings will be furnished by ENGINEER upon the following conditions:

1. CONTRACTOR shall submit to ENGINEER a letter on CONTRACTOR letterhead requesting CADD files of the Drawings and indicating specific definition(s) or description(s) of how such files will be used, and specific description of benefits to DEPARTMENT (including credit proposal, if applicable) if the request is granted.

2. CONTRACTOR shall execute ENGINEER’s standard agreement for release of electronic files and shall abide by the provisions of such agreement for release of electronic files.

3. Layering system incorporated in CADD files shall be maintained as transmitted by ENGINEER. CADD files transmitted by ENGINEER containing cross-referenced files shall not be bound by CONTRACTOR. Drawing cross-references and paths shall be maintained. If CONTRACTOR alters layers or cross-reference files, CONTRACTOR shall restore all layers and cross-references prior to submitting record documents to ENGINEER.

4. CONTRACTOR shall submit record drawings to ENGINEER in same CADD format that files were furnished to CONTRACTOR.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

++ END OF SECTION ++
SECTION 01 89 29

GREEN REMEDIATION PRACTICES

PART 1 - GENERAL

1.1 SUMMARY

A. Work includes, practices related to reducing waste generation; energy usage; emissions including greenhouse gases (GHGs), nitrogen oxides (NOx), sulfur oxides (SOx), particulate matter and hazardous air pollutants (HAPs); water usage; and land and ecosystem disturbance.

B. The CONTRACTOR shall implement practices in the performance of the requirements of the Work to maximize sustainability, reduce energy and water usage, promote carbon neutrality, promote industrial materials reuse and recycling, and protect and preserve natural resources.


D. The CONTRACTOR shall implement practices and procedures to meet the environmental performance goals of the DEPARTMENT consistent with NYSDEC Program Policy DER-31/Green Remediation. In general, such practices and procedures shall include, but are not limited to:

1. Reducing direct and indirect Green House Gas (GHG) and other air emissions;
2. Increasing energy efficiency and minimizing use of non-renewable energy and resources;
3. Conserving and efficiently managing natural resources such as soil, water and habitat, while giving special attention to habitats for critical species (i.e., pollinators), and threatened or endangered species;
4. Minimizing waste, increasing recycling, increasing reuse of materials, furnishing materials from local sources, and minimizing the disposal transport distance using local facilities;
5. Maximizing the reuse of land and the recycling of on-site materials; and
6. Applying green remediation concepts, such as minimizing energy intensive operations, which, at a minimum:
   a. Protect public health and the environment;
   b. Address source removal and control;
   c. Address groundwater protection and restoration, and;
d. Achieve the cleanup goals for the Site remediation.

E. Specifically, CONTRACTOR shall consider inclusion of the following provisions:

1. Beneficial reuse of materials that would otherwise be considered a waste (e.g., crushed clean concrete as base or fill).

2. Establish support zone and storage/laydown areas to minimize the disturbance of habitats and vegetated areas outside of the work zone.

3. Include energy saving measures in all proposed structures, facilities, and operating systems to minimize electricity and water consumption/disposal, such as using variable speed drives for motors, incorporation of appropriately selected insulation and energy saving fixtures, or using extracted groundwater to provide heating and cooling through the use of heat exchangers.

4. Use of renewable energy and/or the purchase of renewable energy credits (RECs) or a combination of the two techniques to offset electrical usage at the site.

5. Reduce vehicle idling. All vehicles, both on and off road (including construction equipment) shall be shut off when not in use for more than 5 minutes, consistent with 6 NYCRR Part 217 Motor Vehicle Emissions, Subpart 217-3 Idling Prohibition For Heavy Duty Vehicles.

6. Use equipment and vehicles that reduce emissions, specifically from compression-ignition engines, and especially in urban areas.

7. Incorporate the use of blended bio-diesel fuel for all compression-ignition powered equipment.

8. Establish minimally invasive and well-designed traffic patterns for on-site activities to reduce impacts to land and ecosystems.

9. Use native drought resistant species for re-vegetation during site restoration.

F. CONTRACTOR shall comply with the DEPARTMENT’S policy to utilize, as approved by the DEPARTMENT, recycled content materials, locally manufactured materials and low-emitting materials.

G. CONTRACTOR shall ensure that the requirements related to the goals of the DEPARTMENT and as defined in the Contract Documents, are implemented to the fullest extent.

H. SOLID WASTE MANAGEMENT

1. Develop and implement a waste management program in accordance with ASTM E1609 and as specified herein.

2. Collection: Implement a recycling/reuse program that includes separate collection of waste materials of the following types as appropriate to the project waste and to the available recycling and reuse programs in the project area:
a. Land clearing debris – re-use for habitat development to the extent practicable.

b. Spent Activated Carbon – send to regeneration facility for reuse rather than to a landfill for disposal.

c. Recovered LNAPL – separate from aqueous fraction and send to a recycling facility.

d. Shipping containers – use bulk sized containers (i.e. drums or totes) that can be recycled or re-used for chemical deliveries.

e. Masonry/Asphalt – sample and re-use or recycle these materials if uncontaminated.

1.2 DEFINITIONS:

A. Green Remediation Definitions

1. Renewable Energy: Energy from a source which is not depleted when used, such as solar, wind, geothermal, biomass and biogas.

2. Locally Manufactured: manufactured within 150 miles of the work.

3. Recovered Materials: Waste materials and by-products that have been recovered from solid waste streams, but does not include materials and by-products generated from, and commonly reused within, an original manufacturing process.

4. Biobased Materials: As defined in the Farm Security and Rural Investment Act, for purposes of Federal procurement of biobased products, “biobased” means a “commercial or industrial product (other than food or feed) that is composed, in whole or in significant part, of biological products or renewable domestic agricultural materials (including plant, animal, and marine materials) or forestry materials.” Biobased materials also include fuels, chemicals, building materials, or electric power or heat produced from biomass as defined by The Biomass Research and Development Act of 2000.

5. Biobased Content: The amount of biobased carbon in the material or product as a percentage of weight (mass) of the total organic carbon in the material or product.

6. Recovered Materials: Waste materials and by-products that have been recovered from solid waste, but does not include materials and by-products generated from, and commonly reused within, an original manufacturing process.

1.3 REFERENCES

A. NYSDEC DER-31 – Green Remediation, New York State Department of Environmental Conservation, DEC Program Policy.

B. CP-49 – Climate Change and DEC Action, New York State Department of Environmental Conservation, DEC Policy.
C. United States Environmental Protection Agency (USEPA):

1. Consider USEPA Best Management Practices (BMPs) related to green remediation for the applicable program elements listed below:
   a. Site investigation:
      i. [https://clu-in.org/greenremediation/docs/GR_Fact_Sheet_SI&EM.pdf](https://clu-in.org/greenremediation/docs/GR_Fact_Sheet_SI&EM.pdf)
   b. Excavation and surface restoration:
      i. [https://clu-in.org/greenremediation/docs/GR_Quick_Ref_FS_exc_rest.pdf](https://clu-in.org/greenremediation/docs/GR_Quick_Ref_FS_exc_rest.pdf)
   c. Soil vapor extraction and air sparging technologies:
      i. [https://clu-in.org/greenremediation/docs/GR_factsheet_SVE_AS_032410.pdf](https://clu-in.org/greenremediation/docs/GR_factsheet_SVE_AS_032410.pdf)
   d. Pump and treat technologies:
   e. Bioremediation:
      i. [https://clu-in.org/greenremediation/docs/GR_factsheet_biorem_32410.pdf](https://clu-in.org/greenremediation/docs/GR_factsheet_biorem_32410.pdf)
   f. In situ thermal technologies:
      i. [https://clu-in.org/greenremediation/docs/GR_factsheet_INST.pdf](https://clu-in.org/greenremediation/docs/GR_factsheet_INST.pdf)
   g. Landfill cover systems and associated energy production:
      i. [https://clu-in.org/greenremediation/docs/GR_factsheet_landfill_covers_and_energy.pdf](https://clu-in.org/greenremediation/docs/GR_factsheet_landfill_covers_and_energy.pdf)
   h. Materials and waste management:

2. Consider USEPA climate resiliency fact sheets related to:
   a. Sediment cleanups:
   b. Containment remedies:
   c. Groundwater treatment remedies:
1.4 ENVIRONMENTAL GOALS

A. The CONTRACTOR, to the extent practicable, shall:

1. Minimize the amount of waste generated from the site and maximize the use of recycling/reuse facilities for disposal of the waste to the extent practicable and as approved by the DEPARTMENT.

2. Maximize use of energy derived from renewable resources.

4. Minimize use of water and maximize water recycling.

5. Minimize disturbance to land and ecosystems.

6. Minimize use of water for dust control and utilize sustainable dust control products.

7. Green Power Requirements
   a. Arrange for Green Power sufficient to provide minimum 25-percent of the project’s total energy needs.
   b. Comply with renewable energy requirements in accordance with the Center for Resource Solutions (CRS) Green-e Standard for Electricity Products.

8. Long-Term Operation and Maintenance
   a. Green Power: Provide service contract(s) for 5 years with options for annual renewal thereafter.
      ii. Immediately notify Owner if electricity product fails to comply with Green-e certification criteria during Contract period.
   b. On an annual basis, or at the end of the Contract period, submit:
      i. A report that includes data on the resources used to generate the electricity consumed during the Contract or over the past year.
      ii. Disclosure statement that lists the resources or fuel sources from which the electricity will be generated in the following year.

9. Use the Electronic Product Environmental Assessment Tool (EPEAT) to find electronic products with reduced impacts on the environment.

10. Resource Conservation and Green Materials
    a. During construction activities and associated landscape alteration activities, green building strategies such as those outlined in the USGBC LEED should be considered. LEED includes guidelines and recommendations for new construction, and existing building operations and management that fall under six categories important for reducing the environmental impact of facilities of all types:
       i. Sustainable sites.
ii. Water efficiency.

iii. Energy and atmosphere.

iv. Materials and resources.

v. Indoor environmental quality.

vi. Innovation in operations.

11. As noted across the LEED categories, resources other than energy that can be conserved include water, raw materials for articles consumed, topsoil, paper for reports and landfill space. Conserving one resource typically conserves other resources and has other sustainability benefits. For example, recycling of construction and demolition debris or metal recovered at a munitions site will reduce consumption of landfill space and may also save energy and reduce air emissions by minimizing material transportation. Another example is the use of waste-to-energy plants for waste disposal rather than landfills in states where these plants are currently operating. This too reduces the consumption of landfill space and also results in energy production from the waste processing. Other examples of resource conservation include: treated water reuse or reinjection, the reuse of treated soil onsite, and the beneficial reuse of sediments.

12. The use of reduced GHG construction and project management tools and materials such as lower carbon concrete or the use of native plants for site restoration also advances the sustainability objectives of the project. It is important to understand that green remediation implies minimizing the entire footprint of the remediation project, which includes the environmental impacts of products and materials associated with the project. For example, lower carbon concrete refers to concrete that is produced with a certain percentage of cement replaced by recovered cementitious materials such as fly ash, slag or glass. This type of reduced cement concrete takes a problematic substance out of the waste stream and reduces the amount of carbon emission equivalents associated with the production of concrete. The use of native plants for site restoration helps to conserve water and eliminate the need for potentially harmful fertilizers and pesticides.

1.5 SUBMITTALS

A. Form “A” - Summary of Green Remediation Metrics:

1. Consistent with NYSDEC Program Policy DER-31/Green Remediation requirements, the CONTRACTOR shall complete Form A - Summary of Green Remediation Metrics, in its entirety and sign the certification as to its accuracy.

2. The CONTRACTOR shall submit properly completed Form A to the DEPARTMENT along with the CONTRACTOR’S Application for Payment.

3. Consistent with NYSDEC’s Part 248 Annual Emission Reporting requirements, CONTRACTOR is required to report annual emission for those vehicles used under Contract reporting period (even those exempt from Best Available Retrofit
4. Submit product data for all products and equipment specified within this specification and other project specifications. As appropriate, include data presenting energy consumption ratings, air discharge ratings, bio-content analysis, and other sustainability measures indicated in this section.

B. A Green Remediation Plan submitted as a component of the CONTRACTOR’s Work Plan (as required by Section X Standard Specifications: Section 01 33 00 – Submittal Procedures) that includes a description of the green remediation elements incorporated into the CONTRACTOR’s approach whether required by the contract documents or independently proposed by the CONTRACTOR, including but not limited to the following:

1. Emission reduction control and policies which shall include a plan for clean diesel practices. At a minimum the plan must incorporate the first two bullets below.
   
   a. Reduce unnecessary idling through the use of auxiliary power units, electric equipment, and strict enforcement of idling limits.
   b. Practice good engine maintenance to meet original standards, and properly train operators to run equipment efficiently.
   c. Use verified diesel emission control technology ("VDEC"), including verified diesel particulate filters ("DPFs") or diesel oxidation catalysts ("DOCs").

2. Transportation minimization and green transportation evaluation

3. Recycling, reuse and waste minimization

4. Use of local materials and facilities

5. Use of lower GHG materials or materials reuse onsite

6. Approach to tracking emissions reductions and other green remediation metrics; and

7. Justification for any proposed approach that does not meet the minimum green remediation requirements and/or preferences included in the Contract Documents.

1.6 QUALITY ASSURANCE

A. Environmental Project Management and Coordination:

1. CONTRACTOR shall designate an employee who shall be responsible for implementation of green remediation elements; coordinate work of subcontractors and suppliers; instruct workers relating to environmental issues; ensure that green remediation metrics are collected, recorded on Form A - Summary of Green
Remediation Metrics and submitted with the CONTRACTOR’S Application for Payment, and oversee Project environmental goals.

PART 2 – PRODUCTS

A. Evaluate the products and materials needed for the project and identify "sustainable" materials to be used. Focused effort shall be directed to identify materials and products that are needed in large quantities that will have the largest impact on the project. For example, projects requiring a large amount of crushed stone for temporary roadway construction shall be evaluated for sustainable solutions (e.g., recycled crushed concrete and local sources).

B. Materials with a high carbon footprint (such as concrete, because of the manufacture of the Portland cement in the material) shall also be evaluated to identify more sustainable solutions. Lower carbon concrete shall be considered for such situations.

C. CONTRACTOR shall use environmentally preferable products, where appropriate and as approved by the DEPARTMENT, including, but not limited to:

1. Compact Fluorescent Lights (CFL) or LED.
2. Reused PVC pipe.
3. Environmentally friendly electronics (e.g., ENERGY STAR).
4. Items composed of recovered materials such as recycled asphalt, concrete and rubble; recycled wood including mulch products; recycled metals including steel, copper, and brass; and items/products composed of recycled cardboard.
5. Items constructed using renewable resources such as biomass energy (such as ethanol), hydropower, geothermal power, wind energy, and solar energy.
7. Bio-based dust control agents and dust suppressants: Products formulated to reduce or eliminate the spread of dust associated with gravel roads, dirt parking lots, open excavations, stockpiled materials or similar sources of dust. Provide minimum 85% biobased content.
8. Geotextile fabrics/tarps made of recycled or recovered material.
9. Hydraulic fluids that are biodegradable for operating hydraulic equipment such as excavators, bulldozers, and drill rigs.
10. Phosphate-free detergents instead of organic solvents or acids to decontaminate equipment not used directly for sample collection.
11. Substitute temporary silt fences with biodegradable erosion controls such as tubular devices filled with organic materials.

12. Products must be certified environmentally clean before delivery to the project site. ENGINEER’S approval shall be required for all products.
PART 3 - EXECUTION

A. The CONTRACTOR shall, to the extent practicable:

1. General Site Requirements:

   a. Set up an on-Site recycling program for CONTRACTOR-generated wastes.

   b. Provide all required documentation in electronic format, eliminating the need for printing, inks, paper, and mail/delivery impacts.

   c. Sequence work to minimize double-handling (e.g., direct loading of waste, direct placement of backfill, etc.) of materials.

   d. Provide locally made materials that are composed of recovered materials to the maximum amount practicable.

   e. Provide materials that generate the least amount of pollution during mining, manufacturing, transport, installation, use and disposal.

   f. Maintain office trailer heating and cooling systems at efficient set points. Utilize renewable energy for trailer power and lighting when possible. Utilize programmable or smart devises to efficiently control lights and HVAC equipment.

   g. If alternatives are available, do not use materials that contain ozone-depleting chemicals (e.g., CFCs or HCFCs) and that emit potentially harmful volatile organic compounds (VOCs).

   h. Employ construction practices that minimize the generation of excessive dust and combustion by-products.

   i. Contract shall not use or cause to be used scarce, irreplaceable and endangered resources.

   j. Reduce impact to land and ecosystems.

   k. Reuse treated wastewater for non-potable uses on site such as sanitary facilities, dust control additives, decontamination. Contain and reuse water on site, to the extent practicable, as approved by the DEPARTMENT.

   l. Ensure temporary facilities (e.g., field offices and sanitary facilities) and permanent structures (e.g., treatment plants and offices) are thoroughly and properly insulated.

   m. Design structures to take full advantage of passive solar heating and cooling.
n. Identify onsite or nearby sources of backfill material such as crushed concrete.

o. Incorporate green requirements into cleanup and supporting service procurements.

p. Choose service providers with local offices, to minimize the distance of worker commutes and machinery transport.

q. Choose equipment and product vendors with nearby production or distribution centers, to minimize delivery-related fuel use.

2. Equipment Requirements:
   a. Minimize equipment engine idling.
   b. Utilize properly sized equipment and minimize the number of mobilizations needed to deliver and remove heavy equipment. Utilize an automated coupling system for equipment, rather than a manual pin-on system for changing excavator attachments, to reduce machine operating time.
   c. Use machine models capable of performing assorted tasks, whenever feasible, to avoid field deployment of multiple types of machines. For instance, a single excavator can be equipped with a bucket for digging, a breaker for demolition or a grapple for land clearing.
   d. Incorporate electronic intelligence systems to improve productivity within and among field machines. “Smart” systems enable work managers to remotely monitor field operations via machine-to-machine communications and identify changes to be made by machinery operators accordingly.
   e. Use machines with variable-speed control technology, which automatically reduces engine speed during low workload requirements, or with pump torque control, which allows a machine operator to change a machine’s hydraulic pump torque.
   f. Use machines with repowered or newer engines that are more fuel efficient.
   g. Implement an engine idle reduction plan to avoid fuel consumption when machinery is not actively engaged. Options include manual shutdown after a specified time such as five minutes, engagement of automatic shutdown devices, or use of auxiliary power units to heat or cool machinery cabs.
   h. Minimize emissions during site work (e.g., replace or retrofit older engines or use newer efficient models or use low-sulfur fuel).
i. Deploy direct-push technology (DPT) instead of rotary drilling rigs whenever feasible for additional subsurface sampling or for monitoring well installation. DPT can reduce drilling duration by as much as 50-60% while eliminating generation of drill cuttings or the need to dispose of drilling fluids.

j. Employ transportation methods, such as rail, which have demonstrated low emissions.

k. Choose trucking methods and fleets that use vehicles equipped with fuel efficiency options such as tractor trailer skirts and air tabs, as well as clean diesel technology.

l. Practice engine maintenance in accordance with manufacturers’ recommendations and properly train operators to run equipment efficiently.

m. Perform all required equipment inspections to reduce the potential for breakdowns, hydraulic fluid spills, and other negative impacts due to lack of inspections.

n. Use 2007 or newer on-road diesel trucks or retrofitted diesel trucks with equivalent emissions reductions that get better fuel mileage, reduce air toxics and use low sulfur fuel or alternative fuel.

o. Identify onsite or nearby sources of topsoil, to avoid long-distance transport of clean soil. Options may include onsite manufacturing of topsoil through use of locally sourced industrial byproducts such as compost or silica-based spent foundry sands.

p. Use solar power packs to recharge batteries in small electronic devices such as small hand tools, cell phones, laptop computers and sensors.

q. Install a ground-mounted PV array, wind turbine or mechanical windmill to power equipment needed for long-term site monitoring or maintenance. Properly scale and configure such equipment to provide power to other remediation equipment if possible.

r. Use high efficiency variable speed pumps for groundwater extraction and treatment plant operations.

s. Optimize pump-and-treat systems using properly sized equipment to minimize excess extraction or energy usage.

3. Restoration and Revegetation Requirements:

a. Revegetate backfilled areas as quickly as possible through use of a diverse mix of native grasses, shrubs, forbs and trees supporting many habitat types.
b. Include plant species that promote colonization of bees and other pollinators.

c. Seed or install native rather than non-native species, which typically increases the rate of plant survival and minimizes the need for irrigation and soil or plant inputs.

d. Choose grass species requiring little or no mowing.

e. Substitute chemical fertilizers, herbicides or pesticides with non-synthetic inputs, integrated pest management methods, and soil solarizing techniques during vegetation planting, transplanting or ongoing maintenance.

f. Retain native, noninvasive plants for later replanting.

+++ END OF SECTION +++
Form A
Summary of Green Remediation Metrics

Site Name: ____________________________ Site Code: ____________ Operable Unit: _______
Address: _____________________________________ City: ______________________________
State: ____________ Zip: __________ County: ______________

Reporting Period
Contract Period From: _____________ To: _____________
Reporting Period From: ____________ To: _____________ Is this a Final Report? Yes ☐ No ☐

Contact Information
Preparer’s Name: ____________________________ Phone No.: ______________________
Preparer’s Affiliation: __________________________ Company Code: ________________
Contract No. __________________________

Materials & Waste Generation: Quantify the materials used or consumed and the management of waste generated on-site.

<table>
<thead>
<tr>
<th>Materials Brought to the Site</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Topsoil</td>
<td></td>
</tr>
<tr>
<td>• Fill</td>
<td></td>
</tr>
<tr>
<td>• Silt Fence</td>
<td></td>
</tr>
<tr>
<td>• Silt Logs</td>
<td></td>
</tr>
<tr>
<td>• Aggregate Base Course</td>
<td></td>
</tr>
<tr>
<td>• Geotextile</td>
<td></td>
</tr>
<tr>
<td>• Solidification Additives</td>
<td></td>
</tr>
<tr>
<td>• Activated carbon</td>
<td></td>
</tr>
<tr>
<td>• Concrete</td>
<td></td>
</tr>
<tr>
<td>• Other:</td>
<td></td>
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<tr>
<td>• Other:</td>
<td></td>
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<tr>
<td>• Other:</td>
<td></td>
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<tr>
<td>• Other:</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Wastes Generated On-Site</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Remedy Generated Waste</td>
</tr>
<tr>
<td>• Contractor Generated Waste</td>
</tr>
<tr>
<td>• Other:</td>
</tr>
<tr>
<td>• Other:</td>
</tr>
<tr>
<td>• Other:</td>
</tr>
<tr>
<td>• Other:</td>
</tr>
</tbody>
</table>

Provide a description of any implemented waste reduction programs appropriate for this project in the space provided on the certification page.
**Recycled and Bio-Based Content in Imported Products and Materials:** Quantify all materials and products imported to the site, including cost of materials/dollar values. Provide total percentages of recycled, bio-based, and lower carbon alternatives of products and materials.

<table>
<thead>
<tr>
<th>List Products and Total $ Value of Recycled Bio-based Alternative</th>
<th>Total Percent</th>
<th>Total Percent Lower Carbon</th>
</tr>
</thead>
</table>

*Provide additional descriptions, as necessary, in the space provided on certification page.*

**Cementitious Materials:** Quantify the carbon emission equivalents (CO2e) for concrete materials used onsite based on batch-specific, regional, or industrial Environmental Product Declaration (EPD). If no EPD is available, use the below industry average lb CO2 per unit lb for concrete materials provided in parentheses:

<table>
<thead>
<tr>
<th>Current Reporting Period (Lbs)</th>
<th>Current Reporting Period CO2e (lb CO2/lb)</th>
<th>Total to Date (Lbs)</th>
<th>Total CO2e (lb CO2/lb)</th>
</tr>
</thead>
</table>

Total quantity of concrete used on-site

If no EPD available, or materials employed onsite for use other than concrete (e.g. geotechnical reagent), provide the quantity of the below materials used onsite:

- **Cement (0.9060)**
- **Slag (0.0210)**
- **Virgin Coarse Aggregate (0.0459)**
- **Sand (0.0139)**
- **Fly Ash (0.0000)**
- **Silica Flume (0.0000)**
- **Other**

*Provide a description in the space provided on Page 3 of any reported cement usage reduction programs appropriate for this project.*

**Solid Waste Disposal and Diversion:** Quantify all solid wastes generated, and indicate whether material was disposed or diverted for recycling or reuse.
## Solid Waste

<table>
<thead>
<tr>
<th>Material</th>
<th>Date</th>
<th>Diverted</th>
<th>(Ton or CY)</th>
<th>Facility Name (if not diverted, state why)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSCA Contaminated Sediment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-TSCA Contaminated Sediment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cleared Vegetation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spent Granular Activated Carbon</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monitoring Well</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Removal Debris</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Other:</td>
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<td></td>
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<td>Other:</td>
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<tr>
<td>Other:</td>
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</tr>
</tbody>
</table>

*Provide descriptions in the space provided on the certification page of all wastes that were redirected for recycling or reuse. Indicate full names and addresses of facilities.*
**Energy Usage:** Quantify the amount of energy used on-site and portion of that voluntarily derived from renewable energy sources.

<table>
<thead>
<tr>
<th>Total electricity usage</th>
<th></th>
</tr>
</thead>
</table>

**Of that total amount, provide quantity:**
- Derived from renewable source (i.e., solar, wind)
- Other:

*Provide descriptions in the space provided on the certification page of all reported energy use reduction programs appropriate to this project, including use of electricity derived from renewable sources.*

**Water Usage:** Quantify the volume of water used on-site from difference sources.

<table>
<thead>
<tr>
<th>Total quantity of water used on-site</th>
<th></th>
</tr>
</thead>
</table>

**Of that total amount, provide the quantity obtained from:**
- Public potable water supply
- Surface water
- On-site treated groundwater
- Reclaimed treated water
- Collected or diverted storm water
- Re-Injected groundwater
- Other:
- Other:

*Provide descriptions in the space provided on the certification page of any reported water use reduction programs applied. Please note if reused/injected groundwater is pre-treated.*

**Emissions:** Quantify the distance traveled for delivery of supplies and removal of waste.

<table>
<thead>
<tr>
<th>Off-site mobile fuel combustion</th>
<th></th>
</tr>
</thead>
</table>

**Other:**

*Provide descriptions in the space provided on the certification page of practices such as use of local vendors within 150 miles of the site and on-site stationary fuel use reduction programs.*

Quantify the number of hours that diesel and other equipment with the potential to emit hazardous air pollutants (HAPs) or greenhouse gas (GHG) emissions was operated on-site.

<table>
<thead>
<tr>
<th>On-site diesel excavation/construction equipment usage</th>
<th></th>
</tr>
</thead>
</table>

**Other on-site processes generating emissions**
- Other:
Quantify the VOC emissions from active remediation systems on-site.

<table>
<thead>
<tr>
<th></th>
<th>Operating soil remediation equipment</th>
<th>Operating groundwater remediation equipment</th>
<th>Other:</th>
</tr>
</thead>
</table>

Provide descriptions in the space provided on the certification page of the type of equipment used, rating, emission control devices used and other means to reduce emissions.

**Land and Ecosystem:** Quantify the amount of land and/or ecosystems disturbed by construction and the area of land and/or ecosystems restored to a natural condition.

<table>
<thead>
<tr>
<th></th>
<th>Total land area disturbed</th>
<th>Total land area restored</th>
<th>Increase in area for storm water infiltration (vs pre-disturbed conditions)</th>
<th>Increase in area of native species plantings (vs pre-disturbed conditions)</th>
<th>Other:</th>
</tr>
</thead>
</table>

Quantify the amount of land and/or ecosystems remediated.

<table>
<thead>
<tr>
<th></th>
<th>Total area of land impacted by contamination</th>
<th>Total area of land remediated to unrestricted use</th>
<th>Total area of land remediated to other future site use</th>
</tr>
</thead>
</table>

**Additional Comments on Green Remediation Programs Implemented:** Provide descriptions in the space provided of other green remediation practices performed during the project.

**Materials and Products Imported:**

**Waste Generation:**
<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Descriptions of green remediation programs reported above (Attach additional sheet if needed)</td>
</tr>
<tr>
<td>Recycled and Bio-Based Content in Imported Products and Materials:</td>
</tr>
<tr>
<td>Solid Waste Disposal and Diversion:</td>
</tr>
<tr>
<td>Energy Use:</td>
</tr>
<tr>
<td>Water Use:</td>
</tr>
<tr>
<td>Emissions:</td>
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<tr>
<td>Land and Ecosystem:</td>
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**CERTIFICATION BY CONTRACTOR**

I, ___________________________ (Name) do hereby certify that I am ______________________ (Title) of the Company/Corporation herein referenced and contractor for the work described in the foregoing application for payment. According to my knowledge and belief, all items and amounts shown on the face of this application for payment are correct, all work has been performed and/or materials supplied, the foregoing is a true and correct statement of the contract account up to and including the last day of the period covered by this application.

___________________ __________________________________________________
Date Contractor
PART 1 - GENERAL

1.1 DESCRIPTION

A. Scope:
   1. CONTRACTOR shall provide all labor, materials, equipment and incidentals as shown, specified and required to furnish and install and operate a minimum of one portable truck scale.
   2. Included are necessary foundation, weigh deck, load cells, control panel, anchorage systems and all appurtenances.
   3. CONTRACTOR shall obtain necessary weights and measures certifications and operate scale with a certified weigh master.

1.2 REFERENCES

A. Standards referenced in this Section are listed below:
      a. AWS D1.1, Structural Welding Code.
   5. Scale Manufacturers Association, (SMA)

1.3 QUALITY ASSURANCE

A. Equipment Manufacturer's Qualifications:
   1. Manufacturer shall have a minimum of five years of experience of producing substantially similar equipment and shall be able to show evidence of at least five installations in satisfactory operation for at least five years.

B. Component Supply and Compatibility:
   1. Obtain all equipment included in this Section, regardless of the component manufacturer, from a single portable truck scale equipment manufacturer.
   2. The portable truck scale equipment manufacturer shall review and approve or shall prepare all Shop Drawings and other submittals for all components furnished under this Section.
   3. All components shall be specifically designed for portable truck weighing service and shall be integrated into the overall equipment design by the portable truck scale equipment manufacturer.
C. Source Quality Control:
   1. Visual Inspection: Verify that equipment complies with these Specifications and approved Shop Drawings.
   2. Packing:
      a. Inspect prior to packing to ensure that assemblies and components are complete and undamaged.
      b. Protect machined surfaces and mating connections.
      c. Protect bearings with a shop applied corrosion prevention coating.
      d. Crate in a manner which will prevent damage during shipment, delivery and storage.
      e. Identify crate contents by a packing slip fastened to the outside of the crate.

1.4 SUBMITTALS

A. Action Submittals: Submit the following:
   1. Product Data:
      a. Manufacturer's literature, illustrations, specifications and engineering data.
   2. Shop Drawings:
      b. Drawings showing fabrication methods, assembly, installation and wiring diagrams.
      c. Setting drawings, templates, and directions for the installation of anchor bolts and other anchorages.

B. Informational Submittals: Submit the following:
   1. Source Quality Control Submittals:
      a. Submit results of required control panel shop tests.
   2. Site Quality Control Submittals:
      a. Submit a written report providing the results of the required field tests.
      b. Submit a written report of the results of each visit by a manufacturer's serviceman, including purpose and time of visit, tasks performed and results obtained.

C. Closeout Submittals: Submit the following:
   1. Operation and Maintenance Manuals:
      a. Submit complete installation, operation and maintenance manuals including test reports, maintenance data and schedules, description of operation and spare parts information.

D. Maintenance Material Submittals: Submit the following:
   1. Extra Stock Materials:
      a. Load Cell Fluid: Furnish a load cell fluid specification for the type and grade necessary to meet the requirements of the equipment if required.
1.5 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Deliver materials to the Site to ensure uninterrupted progress of the Work. Deliver anchor bolts and anchorage devices, which are to be embedded in cast-in-place concrete in ample time to not delay that Work.

B. All boxes, crates and packages shall be inspected by CONTRACTOR upon delivery to the Site. CONTRACTOR shall notify ENGINEER, in writing, of any loss or damage to equipment or components. Replace losses and repair damage to new condition, in accordance with manufacturer's instructions.

C. Store materials to permit easy access for inspection and identification. Keep all material off the ground using pallets, platforms, or other supports. Protect equipment including packaged materials from corrosion and deterioration.

PART 2 - PRODUCTS

2.1 SERVICE CONDITIONS

A. General: Equipment shall be designed to be suitable for the process and service conditions described below and in the Schedule of Service Conditions.
   1. Portable scale shall be of capable of weighing trucks and being certified by weights and measures.

B. Schedule of Service Conditions:
   1. No. of Scales: 1 (Minimum)
   2. Platform Size: Determined by CONTRACTOR
   3. Total Capacity: Determined by CONTRACTOR
   4. Sectional Capacity: Determined by CONTRACTOR
   5. Mid-Span Capacity:
      a. Single Axle Determined by CONTRACTOR
      b. Tandem Axle Determined by CONTRACTOR
      c. Tri-axle Determined by CONTRACTOR

2.2 PRODUCT AND MANUFACTURER

A. Products and Manufacturers: Provide one of the following:
   2. Fairbanks Scales.
   3. Or equal.
PART 3 - EXECUTION

3.1 INSPECTION

A. Inspection:
   1. Inspect and verify that structures or surfaces on which the equipment will be installed have no defects which will adversely affect installation.
   2. Inspect all equipment prior to installation.
   3. Promptly report defects which may affect the Work to the ENGINEER, in writing.

3.2 START-UP AND TEST

A. Perform operating tests to demonstrate that the equipment operates properly.

B. Make adjustments required to place equipment in proper operating condition.

C. Submit report of test results.

3.3 MANUFACTURER'S FIELD SERVICES

A. A factory trained representative shall be provided for installation supervision, start-up and test services and operation and maintenance personnel training services. Manufacturer's representative shall test operate the system in the presence of the ENGINEER and verify that the equipment conforms to requirements. Representative shall revisit the Site as often as necessary until all trouble is corrected and the installation is entirely satisfactory.

B. All costs, including travel, lodging, meals and incidentals, shall be considered as included in CONTRACTOR’S bid price.

3.4 MANUFACTURER'S REPAIR SERVICES

A. Provide services of factory-trained representatives of the manufacturer to maintain the scale during the contract period.

++ END OF SECTION ++
SECTION XI

Supplementary Specifications
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# SECTION XI
## SUPPLEMENTARY SPECIFICATIONS
Contract No. D012107

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Donald Francis Conan III
NY PE No. 75666

Myron Carlton Chaplin
NY PE No. 79870
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PART 1 GENERAL

1.1 SUMMARY

A. Section Includes
   2. Definitions.
   3. ENGINEER’S authority.
   4. Access to site.
   5. CONTRACTOR’s use of site and premises.
   6. Work Hours.
   7. Control of work.
   8. Legal notification.
   9. Special site consideration.
  10. Site security.
  11. Site safety.

1.2 CONTRACT DESCRIPTION

A. This Specification section provides a general description of the Work. The Contractor shall refer to the appropriate detailed Specifications section for project specifics.

B. The New York State Department of Environmental Conservation (DEPARTMENT) is accepting bids for the Old Upper Mountain Road (OUMR) Remedial Project.

C. General Description of proposed Work:
   1. The Old Upper Mountain Road Site is comprised of three operable units (OU-1, OU-2, and OU-3).
   2. OU-1 is summarized as a former dump site with waste materials, waste ash, and contaminated soils. OU-1 includes upland property adjacent to Old Upper Mountain Road and the CSX/Somerset rail lines. OU-1 also includes the slope from this area to the toe of slope at the bottom of the ravine where OU-2 is located. OU-1 makes up part of Area 1 which is accessed from Old Upper Mountain Road.
   3. OU-2 is summarized as the Gulf Creek and surrounding wetlands and floodplains at the bottom of the Gulf Ravine that contains impacted sediment. Work within OU-2 is separated into two regions, Area 1 and Area 2. Area 1 is accessed from OU-1 (Old Upper Mountain Road), while Area 2 is accessed from an access road which begins at Oakhurst Street, crosses the Somerset Rail line and the Closed Lockport City Landfill, and approaches the ravine near the Niagara Street culvert.
   4. OU-3 is summarized as the portion of the former dump site located between the Somerset and CSX rail lines and makes up Area 3. The size of OU-3 is approximately 1 acre. OU-3 is accessed from Otto Park Place through a viaduct beneath the CSX Rail line. This viaduct may limit the size of equipment that can access OU-3.
5. Work includes activities in each of the three areas which are generally, but not completely, independent:
   a. Area 1 Work includes construction of an Area 1 Site Access Road, clearing, excavation of OU-1 Fill and OU-2 Sediment, preparation of the Containment Cell including a Buttress and Groundwater Underdrain, processing and amendment of OU-1 Fill and OU-2 Sediment, placement of Area 1 Amended Fill in the Containment Cell, capping of the Containment Cell with an engineered landfill cap, and site restoration activities.
      1) Excavated OU-1 Fill and OU-2 Sediment from Area 1 is to be disposed of in the Containment Cell constructed over OU-1 and portions of OU-2 at the upstream end of Gulf Creek.
   b. Area 2 Work includes excavation of OU-2 Sediment, preparation of the Lockport City Landfill Sediment Cell (LCLSC), processing and amendment of OU-2 Sediment, placement of Area 2 Amended Fill in the LCLSC, capping of the LCLSC with an engineered landfill cap, and site restoration activities.
      1) Excavated OU-2 Sediment from Area 2 is to be disposed of in the LCLSC constructed over the former Lockport City Landfill.
   c. Area 3 Work includes clearing, grading, and capping of OU-3 with a Clean Soil Cap.
   d. Additional Work between Area 1 and Area 2 includes installation of a Seep Treatment Trench and Granular Activated Carbon (GAC) Vault, bank restoration, and site restoration activities at an abandoned discharge pipe and active seep to Gulf Creek.

6. Restoration Work includes establishment of a stream channel and wetlands within OU-2 and vegetation of all other disturbed upland areas.

D. All Work items are to be conducted according to the Contract Documents and the Contract Drawings.

E. The Work shall be planned, scheduled, and performed in stages to complete the Work within the requirements of the Contract Document. Work shall be scheduled to be of as little inconvenience to the property owners as possible and shall be conducted in such a manner so as to have as little impact on existing land use as possible.

1.3 DEFINITIONS

A. Definitions of contractual or associated parties, referenced herein on the Contract Drawings and in the Technical Specifications, are listed below:
   1. DEPARTMENT—New York State Department of Environmental Conservation (NYSDEC).
   2. ENGINEER—EA Engineering, P.C. and Its Affiliate EA Science and Technology
   3. CONTRACTOR—A person, company or organization who has contracted with the DEPARTMENT and is directly responsible for performance of the Work referenced in the Technical Specifications, Contract Drawings or as included herein.
   4. SUBCONTRACTOR—A person, company or organization who has contracted with the CONTRACTOR for the purpose of supplying services, materials, assemblies or other items as required to perform the Work referenced in the Technical Specifications, Contract Drawings or as included herein.
   5. Others—A person, company or organization who has contracted with the DEPARTMENT for the purpose of supplying services, materials, or other items of Work.
independent of those services, materials, or other items of Work supplied by the CONTRACTOR.

1.4 ACCESS TO SITE

A. See Section X Standard Specifications: Section 01 55 13 – Access Roads and Parking Areas for additional requirements and information.

B. The CONTRACTOR shall have access to the Site as shown on the Contract Drawings and in accordance with Section X Standard Specifications, Section XI Supplementary Specifications, and in general the Contract Documents which are intended to include access agreements obtained by the DEPARTMENT.

C. The DEPARTMENT has obtained right-of-entry and/or access agreements with property owners as provided in the Contract Documents. Requirements for access may include specific CONTRACTOR coordination with individual property owners, and other CONTRACTOR-provided responsibilities. All CONTRACTOR activities required to facilitate access to involved properties in accordance with right-of-entry and access agreement documents are subsidiary to the Work, and no additional payment shall be made.

D. The Limits of Disturbance (LOD)s are shown on the Contract Drawings and described in these Specifications. All Work shall be confined to the LODs and completed to the lines, grades, and dimensions called for on the Contract Documents unless directed otherwise by the DEPARTMENT. All Work performed beyond designated limits without prior approval shall be corrected to the DEPARTMENT satisfaction, at no additional cost to the DEPARTMENT.

E. The Contractor shall observe applicable traffic laws and New York State Department of Transportation (NYSDOT) requirements. The CONTRACTOR shall observe all posted speed limits while traveling through the site. Vehicles shall not exceed 10 miles per hour in staging/laydown areas or on sloped access roads.

F. All project and personnel vehicles shall be parked in designated areas.

1.5 CONTRACTOR’S USE OF SITE AND PREMISES

A. Limit use of Site and premises to areas shown on the Contract Drawings. Additional area may be available with prior approval of DEPARTMENT.

B. Maximum LODs are shown on the Contract Drawings. CONTRACTOR shall not disturb areas outside the LOD unless necessary and with prior approval of DEPARTMENT.

1.6 WORK HOURS

A. Work shall be performed during periods in which adequate light levels are available to provide a safe working environment. Night work shall not be allowed for performance of the Work without written prior approval from DEPARTMENT.

1.7 CONTROL OF WORK

A. See Section X Standard Specifications: Section 01 73 00 – Field Engineering for additional requirements and information.
B. Survey controls are available onsite as indicated on the Contract Drawings. CONTRACTOR shall verify with the ENGINEER locations of site reference and survey control points prior to starting Work, and provide additional control in accordance with Section X Standard Specifications: Section 01 73 00 – Field Engineering. All control points shall be carefully preserved, and if destroyed or removed without DEPARTMENT and ENGINEER approval, shall be reset by the CONTRACTOR’S licensed land surveyor at the expense of the CONTRACTOR. CONTRACTOR shall notify DEPARTMENT and ENGINEER of discrepancies.

C. Control datum for survey is that shown on Contract Drawings and specified in Section X Standard Specifications: Section 01 73 00 – Field Engineering.

D. Using the provided control points or AutoCAD files, the CONTRACTOR shall set necessary construction layout stakes. Establish elevations, lines, and levels, utilizing recognized engineering survey practices.

E. CONTRACTOR shall allow ENGINEER to inspect construction layout stakes prior to beginning Work.

F. Confirm Contract Drawings dimensions and elevations.

G. ENGINEER will provide electronic AutoCAD files in AutoCAD Civil 3D 2019 format to CONTRACTOR. The hard copy design Drawings supersede the electronic grade files in all cases.

H. Maintain complete and accurate log of control and survey Work as Work progresses.

1.8 LEGAL NOTIFICATION

A. The CONTRACTOR shall give all notices and comply with all laws, ordinances, codes, permits, rules, and regulations bearing on the conduct of the Work as drawn and specified. If the CONTRACTOR performs any Work contrary to such laws, ordinances, codes, permits, rules, and regulations, CONTRACTOR shall bear all costs arising therefrom. It is the responsibility of the CONTRACTOR to identify and secure any and all permits to be maintained during the course of the project as required to execute the Contract.

B. DEPARTMENT will provide the following documents/permits:
   1. Nationwide Permit 38, Cleanup of Hazardous and Toxic Waste
   2. Section 401 Water Quality Permit Certification
   3. State Pollutant Discharge Elimination System Equivalency Permit (SPDES)

C. CONTRACTOR will provide the following documents/permits:
   1. Town of Lockport Permits
   2. City of Lockport Permits

D. CONTRACTOR shall comply with and execute requirements in all permits.

1.9 SPECIAL SITE CONSIDERATION

A. The CONTRACTOR shall control storm water runoff in accordance with the SPDES stormwater permit by implementing a Storm Water Pollution Prevention Plan (SWPPP) as
required by Section XI Supplementary Specifications: Section 01 57 13 – Temporary Erosion and Sedimentation Controls.

B. CONTRACTOR shall use ultra-low sulfur #2 diesel fuel in all diesel construction equipment used during the project.

1.10 SITE SECURITY

A. Comply with Section X Standard Specifications: Section 01 57 33 – Security.

B. Security will not be provided by ENGINEER or the DEPARTMENT. The CONTRACTOR shall, at all times, take reasonable precautions in conducting all operations under this contract in a manner to avoid the risk of loss, theft or damage to the equipment and supplies. ENGINEER or the DEPARTMENT will not be responsible for the loss, theft, or damage of the CONTRACTOR’s equipment.

C. The CONTRACTOR shall be responsible for providing barricades, signs, flags, caution tape, and other means, as necessary, to prevent unauthorized access to the site and protect the Work, materials and equipment stored onsite.

1.11 SITE SAFETY

A. Comply with Section X Standard Specifications: Section 01 35 29 – Contractor’s Health and Safety Plan, Section 01 35 33 – COVID-19 Risk Management, Section 01 35 43.13 – Environmental Procedures for Hazardous Materials, and Section 01 76 50 – Nuisance Controls.

B. The CONTRACTOR shall comply with Safety and Health Regulations for Construction, promulgated by the Secretary of Labor under Section 107 of the Contract Work Hours and Safety Standards Act, as set forth in Title 29, C.F.R. Copies of these regulations may be obtained from Labor Building, 14th and Constitution Avenue N.W., Washington, DC 20013, or at the following web address: www.osha.gov. The CONTRACTOR shall also comply with the provisions of the Federal Occupational Safety and Health Act, as amended.

C. The CONTRACTOR shall provide at least one non-freezing-type fire extinguisher in each Work vehicle on the premises.

D. The CONTRACTOR shall provide and maintain a basic first aid kit.
   1. Provide first aid supply commensurate with size of project with items necessary for first aid treatment of all injuries.
   2. Advise workers of the location of first aid supplies.
   3. Post telephone numbers of nearest hospital or ambulance service and fire station in conspicuous location. Advise all workers of location of telephone numbers.

1.12 SPECIFICATION CONVENTIONS

A. Some of these specifications are written in imperative mood and streamlined form. This imperative language is directed to the CONTRACTOR, unless specifically noted otherwise. The words “shall be” are included by inference where a colon (:) is used within sentences or phrases.
1.13 ORDER OF PRECEDENCE

A. In the event of a conflict in the execution of work, the following order of precedence shall apply.
   1. Project permits
   2. Supplementary Technical Specifications
   3. Standard Technical Specifications
   4. Contract Drawing Details
   5. Contract Drawing Sections or Elevations
   6. Contract Drawing Plan Views

B. The permits, Technical Specifications, and Contract Drawings shall govern over the BODR text. In any cases of inconsistency between the permits, Technical Specifications, and Contract Drawings, which cannot be resolved by either the CONTRACTOR or the DEPARTMENT, the BODR shall be consulted. The BODR shall be used to determine if a clarification is available from within the narrative or overall presentation of intent of design. If there is no clear answer from the BODR, the CONTRACTOR shall perform the most environmentally protective approach.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

END OF SECTION 01 10 00
PART 1 GENERAL

1.1 SUMMARY

A. The CONTRACTOR shall furnish all labor, materials, equipment, and incidentals necessary to prepare, protect, and maintain the site during a winter shutdown commencing on the third Saturday of December of each year and continuing until the second Sunday of March of the following year. For example, for Winter 2022/23, the winter shutdown period would take place from 17 December 2022 until 12 March 2023. A Winter Shutdown is required during each winter until Substantial Completion. The Winter Shutdown(s) shall not be construed as the basis for an extension in Contract Duration.

B. The DEPARTMENT reserves the right to adjust the start and end dates of the Winter Shutdown as site conditions may require. The DEPARTMENT will provide written notice to the CONTRACTOR of a date adjustment no less than seven days before the revised date. No written notification will be required for the specified dates to be effective.

C. The CONTRACTOR may request, in writing, that the Winter Shutdown start date be delayed or the end date be made earlier provided that the site conditions will allow effective work to be performed in accordance with the Contract Documents. The CONTRACTOR shall provide the written request 14 days prior to the proposed dates. DEPARTMENT approval is required to adjust the Winter Shutdown period.

D. The CONTRACTOR shall comply with all applicable specification sections in preparing the site for Winter Shutdown and securing the integrity of the constructed work.

E. All damages associated with the Winter Shutdown shall be repaired at no additional cost to the DEPARTMENT, in accordance with these specifications.

F. The CONTRACTOR shall perform a comprehensive Site inspection in the presence of the ENGINEER prior to the agreed start of the Winter Shutdown to confirm that appropriate protections and controls have been installed in accordance with the CONTRACTOR’s Winter Shutdown Plan. The CONTRACTOR shall notify the DEPARTMENT in writing that the Winter Shutdown Plan protections and controls have been installed and are ready to be inspected.

G. The CONTRACTOR shall maintain site security during the Winter Shutdown in accordance with Section X Standard Specifications: Section 01 57 33 – Security.

H. The CONTRACTOR shall maintain the necessary temporary facilities and temporary controls in accordance with Section X Standard Specifications: Section 01 51 05 – Temporary Utilities and Controls and Section XI Supplementary Specifications: Section 01 57 13 – Temporary Erosion and Sedimentation Controls. The CONTRACTOR shall maintain field trailers, electrical power, and lighting as required to facilitate site inspections and perform any required Work during the Winter Shutdown.
I. The CONTRACTOR shall install and maintain stormwater controls to minimize uncontrolled runoff from the operable units.

J. Payments for Site Services and Health and Safety shall be suspended during the period of Winter Shutdown.

K. Related Sections:
   1. Section X Standard Specifications
      a. Section 01 33 00 – Submittal Procedures
      b. Section 01 51 05 – Temporary Utilities and Controls
      c. Section 01 57 33 – Security
   2. Section XI Supplementary Specifications
      a. Section 01 57 13 – Temporary Erosion and Sedimentation Controls

1.2 REFERENCES

A. New York State Department of Environmental Conservation
   1. State Pollutant Discharge Elimination System (SPDES) Equivalency Permit
   2. Standards and Specifications for Erosion and Sediment Control

1.3 SUBMITTALS

A. Winter Shutdown Plan (as a component of the Work Plan)
   1. As required by Section X Standard Specifications: Section 01 33 00 - Submittal Procedures.
   2. Prepare a Winter Shutdown Plan to include as a component of the Work Plan. The Winter Shutdown Plan shall include at a minimum:
      a. Description of remaining manpower, temporary facilities, temporary utilities, and temporary erosion and sedimentation controls to be left on-site during the Winter Shutdown.
      b. Procedures for performance of site inspections prior to, during, and upon remobilization after the Winter Shutdown
      c. Schedule for site inspections to be preformed during the Winter Shutdown
      d. A sample inspection form with accompanying Site sketch to be used during the Winter Shutdown inspections
      e. A description of the erosion, sediment, and stormwater controls to be installed prior to the Winter Shutdown
      f. Implementation schedule for temporary and permanent erosion, sediment, and stormwater controls to be installed before and after the Winter Shutdown
      g. Calculations and assumptions used to size and select locations for proposed controls
      h. Provide a figure/drawing depicting the existing and proposed locations of controls, including dimensional details
      i. Describe maintenance activities to be performed during the Winter Shutdown and provide a schedule

B. Informational Submittals.
   1. Manufacturer’s data for new materials/products proposed for use during the Winter Shutdown period.
      a. Submit at least 14 days prior to use of these materials onsite.
   2. Completed site inspection forms with photographs and sketches noting the condition of the Site and the location of deficiencies or required repairs.
PART 2 PRODUCTS

2.1 GENERAL

A. Products and materials shall be as specified in related specifications, such as Section XI Supplementary Specifications: Section 01 57 13 – Temporary Erosion and Sedimentation Controls or as proposed in the approved Winter Shutdown Plan.

PART 3 EXECUTION

3.1 GENERAL

A. Open excavations are not allowed during the Winter Shutdown period.

3.2 INSTALLTION AND MANGEMENT OF WINTER EROSION AND SEDIMENTATION CONTROLS

A. Erosion and sediment controls shall be installed and maintained in accordance with New York State DEC Standards and Specifications for Erosion and Sediment Control and Section XI Supplementary Specifications: Section 01 57 13 – Temporary Erosion and Sedimentation Controls.

B. Soil Stabilization
   1. Disturbed areas shall be temporarily or permanently stabilized in accordance with Section XI Supplementary Specifications: Section 01 57 13 – Temporary Erosion and Sedimentation Controls prior to the Winter Shutdown.

C. Temporary Perimeter Controls
   1. Temporary perimeter controls shall be installed at all necessary locations in accordance with Section XI Supplementary Specifications: Section 01 57 13 – Temporary Erosion and Sedimentation Controls prior to the Winter Shutdown.

D. Soil Stockpiles
   1. Stockpiles shall be protected by the use of established vegetation, an anchored straw or mulch rolled erosion control product, or other durable covering. Perimeter controls shall be installed around all stockpile locations.

E. Temporary Stabilized Construction Access (Construction Entrances)
   1. All entrance/exit locations to the Site shall be properly stabilized and must be maintained to accommodate snow management.

F. Snow Management
   1. Snow management shall not destroy or degrade erosion, sediment, and stormwater controls.
3.3 INSTALLATION AND MANAGEMENT OF STORMWATER CONTROLS

A. Install and maintain stormwater controls in accordance with Section XI Supplementary Specifications: Section 01 57 13 – Temporary Erosion and Sedimentation Controls prior to the Winter Shutdown. Uncontrolled stormwater flow from OU-1 and OU-3 shall be minimized. Soil surfaces (either existing or newly constructed) shall be protected from erosive conditions and damage during the Winter Shutdown period. Additional erosion, sedimentation, and stormwater controls beyond what has been identified on the Contact Drawings and within these specifications may be necessary and will be the responsibility of the CONTRACTOR.

3.4 INSPECTIONS

A. Perform inspections during the Winter Shutdown period in accordance with Section XI Supplementary Specifications: Section 01 57 13 – Temporary Erosion and Sedimentation Controls.

3.5 MAINTENANCE AND REPAIRS

A. Perform maintenance and repairs to all temporary controls and facilities during the Winter Shutdown period to maintain their effectiveness. Replace controls as necessary. Critical repairs shall be completed within 48 hours. Non-critical repairs shall be completed within 14 days.

3.6 ONSITE MATERIAL STORAGE

A. The CONTRACTOR is responsible for the security and maintenance of all materials stored onsite during the Winter Shutdown.

B. All containerized wastes shall be removed from the Site prior to the Winter Shutdown.

END OF SECTION 01 14 35
PART 1 GENERAL

1.1 SUMMARY

A. Section Includes
   1. Quality control and control of installation.
   2. Tolerances.
   3. References.
   4. Labeling.
   5. Examination.
   6. Testing and inspection services.

1.2 SUBMITTALS

A. Informational Submittals:
   1. Manufacturers' instructions and certificates. Submit prior to use of materials.
   2. Weekly CONTRACTOR Quality Control (CQC) Reports (submitted on Monday for the preceding 7-day week) will include, but not be limited to, the following information related to Work activities:
      a. Delays encountered and relevant details of the delay, such as the cause, resolution, and measures implemented to avoid similar delays in the future and to make up lost time if necessary.
      b. Excavation progress, sediment removal depths, dewatering volumes (sediment and water), mixing volumes (OU-1 Fill, OU-2 Sediment, Portland Cement), Debris volumes, Buttress installation progress, Groundwater Underdrain Installation Progress, Amended Fill placement volumes, Containment Cell Cap installation progress, restoration fill volumes, planting progress, etc.
      c. Interim progress surveys should be provided, with supporting x,y,z files, to support review during bi-weekly progress meetings.
      d. Sediments/soil quantities transported between the following areas:
         1) Within Area 1, between OU-2 and OU-1
         2) Within Area 2, between OU-2 and the Lockport City Landfill
         3) From Area 3 to Area 1
         4) From Area 1, 2, or 3 to offsite locations
      e. Pertinent safety information
      f. Active personnel
      g. Photographs depicting work
      h. Planned work tasks for upcoming week
      i. Quantities of site stockpiled materials.
      j. Daily quantities of materials transported offsite.

1.3 QUALITY CONTROL AND CONTROL OF INSTALLATION

A. Maintain quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.
B. Before ordering any fabricated material or doing any Work, verify all measurements at the project site. No additional compensation will be allowed because of differences between actual dimensions and the measurements indicated on the Contract Drawings. Report any discrepancy immediately to the ENGINEER for instructions before proceeding with the Work.

C. Comply with manufacturers' instructions, including each step-in sequence.

D. When manufacturer's instructions conflict with Contract Documents, request clarification from ENGINEER or the DEPARTMENT before proceeding.

E. Comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.

F. Work shall be performed by persons qualified to produce required and specified quality.

G. Verify field measurements are as indicated on shop drawings or as instructed by manufacturer.

H. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.

1.4 TOLERANCES

A. Monitor fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate.

B. Comply with manufacturers' recommended tolerances and tolerance requirements in reference standards. When such tolerances conflict with Contract Documents, request clarification from ENGINEER before proceeding.

C. Adjust products to appropriate dimensions; position before securing products in place.

1.5 REFERENCES

A. For products or workmanship specified by association, trade, or other consensus standards, comply with requirements of standard except when more rigid requirements are specified or are required by applicable codes.

B. Conform to reference standard by date of issue current on date of Contract Documents, except where specific date is established by code.

C. Obtain copies of standards where required by product specification sections.

D. When specified reference standards conflict with Contract Documents, request clarification from the ENGINEER before proceeding.

E. Neither contractual relationships, duties, nor responsibilities of parties in Contract shall be altered from Contract Documents by mention or inference otherwise in reference documents.
1.6 LABELING

A. Label Information: Include manufacturer's or fabricator's identification, approved agency identification, and the following information, as applicable, on each label:
   1. Model number
   2. Serial number
   3. Performance characteristics

PART 2 PRODUCTS - Not Used.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify existing site conditions are acceptable for subsequent Work. Beginning new Work means acceptance of existing conditions.

B. Examine and verify specific conditions described in individual specification sections.

3.2 PHASES OF CONTROL

A. Construction Quality Control (CQC) is the means by which the CONTRACTOR ensures that the construction, to include that of SUBCONTRACTORS and suppliers, complies with the requirements of the Contract Documents. At least three phases of control are required to be conducted by the CONTRACTOR for each definable feature of the construction work as follows:

B. Preparatory Phase
   1. This phase is performed prior to beginning work on each definable feature of work, after all required plans/documents/materials are approved/accepted, and after copies are at the work site. This phase includes:
      a. A review of each paragraph of applicable specifications, reference codes, and standards. Make available during the preparatory inspection a copy of those sections of referenced codes and standards applicable to that portion of the work to be accomplished in the field. Maintain and make available in the field for use by DEPARTMENT personnel until final acceptance of the work.
      c. Check to assure that all materials and/or equipment have been tested, submitted, and approved.
      d. Review of provisions that have been made to provide required control inspection and testing.
      e. Examination of the work area to assure that all required preliminary work has been completed and is in compliance with the Contract Documents.
      f. Examination of required materials, equipment, and sample work to assure that they are on hand, comply with approved Shop Drawings or submitted data, and are properly stored.
      g. Review of the appropriate activity hazard analysis to assure safety requirements are met.
h. Discussion of procedures for controlling quality of the work including repetitive deficiencies. Document construction tolerances and workmanship standards for that feature of work.

i. Check to ensure that the portion of the plan for the work to be performed has been accepted by the DEPARTMENT.

j. Discussion of the initial control phase.

k. The DEPARTMENT needs to be notified at least 48 hours in advance of beginning the preparatory control phase. Include a meeting conducted by the CONTRACTOR during the preparatory phase. Document the results of the preparatory phase actions by separate minutes prepared by the CONTRACTOR and attach to the daily field engineering report as required by Section X Standard Specifications: Section 01 73 00 – Field Engineering. Instruct applicable workers as to the acceptable level of workmanship required to meet contract specifications.

C. Initial Phase

1. This phase is accomplished at the beginning of a definable feature of work. Accomplish the following:

   a. Check initial work as it is conducted to ensure that it is in full compliance with Contract Document’s requirements. Review minutes of the preparatory meeting.

   b. Verify adequacy of controls to ensure full Contract Document compliance. Verify required control inspection and testing are in compliance with the Contract Documents.

   c. Establish level of workmanship and verify that it meets minimum acceptable workmanship standards. Compare with required sample panels as appropriate.

   d. Resolve all differences.

   e. Check safety to include compliance with and upgrading of the safety plan and activity hazard analysis. Review the activity analysis with each worker.

   f. The DEPARTMENT needs to be notified at least 48 hours in advance of beginning the initial phase for a definable feature of work. Prepare separate minutes of this phase and attach to the daily report as required by Section X Standard Specifications: Section 01 73 00 – Field Engineering. Indicate the exact location of initial phase for a definable feature of work for future reference and comparison with follow-up phases.

   g. The initial phase for each definable feature of work is repeated for each new crew to work onsite, or any time specified quality standards are not being met.

D. Follow-up Phase

1. Perform daily checks to assure control activities, including control testing, are providing continued compliance with Contract Document’s requirements, until completion of the particular feature of work. Record the checks in the CQC documentation. Conduct final follow-up checks and correct all deficiencies prior to the start of additional features of work that may be affected by the deficient work. Do not build upon, nor conceal, non-conforming work.

E. Additional Preparatory and Initial Phases

1. Conduct additional preparatory and initial phases on the same definable features of work: if the quality of on-going work is unacceptable; if there are changes in the applicable CQC staff, onsite production supervision or work crew; if work on a definable feature is resumed after a substantial period of inactivity; or if other problems develop.
3.3 TESTING AND INSPECTION SERVICES

A. CONTRACTOR shall employ and pay for services of an independent testing agency, and laboratory to perform specified testing. The independent testing agency shall perform tests, inspections and other services specified in individual specification sections. Adhere to the requirements in this Section and Section X Standard Specifications: Section 01 45 29 – Testing Laboratory Services Furnished By Contractor.

B. The cost for all testing services required shall be included in the CONTRACTOR’s bid. No separate payments will be made for testing. Include all associated costs in the appropriate bid items. The CONTRACTOR shall pay the testing firm.

C. Testing, inspections, and source quality control may occur on or off project site.

D. Conduct tests in accordance with the requirements of the designated specifications or, where not specified, the latest appropriate standard of the American Society for Testing and Materials (ASTM).

E. CONTRACTOR Shall:
   1. Make available, at no cost, all material to be tested.
   2. Provide labor necessary to supply samples and assist in making tests.
   3. Advise laboratory of the identity of material sources and instruct suppliers to allow inspections by laboratory.

F. After each test, CONTRACTOR shall submit report to ENGINEER indicating observations and results of testing and indicate compliance or non-compliance with Contract Documents. CONTRACTOR’s independent engineer shall provide interpretation of testing and shall include the following:
   1. Date issued
   2. Project title and number
   3. Name of inspector
   4. Date and time of sampling or inspection
   5. Identification of product and specifications section
   6. Location of test
   7. Type of inspection or test
   8. Date of test
   9. Results of tests

G. Promptly notify ENGINEER of irregularities or deficiencies of Work which are observed during performance of testing services.

H. Testing and employment of testing agency shall not relieve CONTRACTOR of obligation to perform Work in accordance with requirements of Contract Documents.

I. Re-testing or re-inspection required because of non-conformance to specified requirements shall be performed by independent firm at no additional cost to DEPARTMENT.

J. Limits On Testing Agency:
   1. Agency may not release, revoke, alter, or enlarge on requirements of Contract Documents.
   2. Agency may not approve or accept any portion of the Work.
3. Agency is not authorized to perform any duties of the CONTRACTOR.

END OF SECTION 01 40 00
SECTION 01 55 26
TRAFFIC CONTROL

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes minimum requirements for temporary traffic regulation and control throughout the course of the project.

B. Related Sections:
   1. Section X Standard Specifications:
      a. Section 01 33 00 – Submittal Procedures
   2. Section XI Supplementary Specifications:
      a. Section 01 57 13 – Temporary Erosion and Sedimentation Controls
      b. Section 02 80 01 – Decontamination

1.2 REFERENCES

A. Federal Highway Administration

B. New York State Department of Transportation (NYSDOT) Standard Specifications

1.3 PERFORMANCE REQUIREMENTS

A. Develop a Traffic Control Plan and procedures that completes the following:
   1. Maintains safe conditions for the CONTRACTOR’s workers, the general public, and all vehicles,
   2. Minimizes the inconvenience to the general public and nearby property owners, and
   3. Gives the right of way to emergency vehicles in all situations.

1.4 SUBMITTALS

A. Traffic Control Plan (as a component of the Work Plan)
   1. As required by Section 01 33 00 - Submittal Procedures.
   2. Prepare a Traffic Control Plan to include as a component of the Work Plan. The Traffic Control Plan shall include at a minimum:
      a. Anticipated impacts to onsite and offsite traffic.
      b. Access routes for project traffic to each work area.
      c. Estimated daily project traffic flows for each phase of the work.
      d. Procedures for cleaning debris and spillage from public roads.
      e. This Plan shall identify equipment and describe procedures to minimize the creation and dispersion of dust and the removal of earthen materials tracked onto
site and off-site roadways by construction vehicles. The Plan shall address major construction activities that will contribute to these situations and the CONTRACTOR’S approach to control them.

PART 2 - PRODUCTS

2.1 OWNERSHIP

A. The products specified herein shall be leased or owned by the CONTRACTOR and will not become the property of the DEPARTMENT. All products specified herein shall be removed from the work site when no longer needed.

2.2 TRAFFIC CONTROL DEVICES

A. All the following items shall conform to NYSDOT Standard Specification 619-2 and the MUTCD:
   1. Flashing barricade lights
   2. Construction and maintenance signs
   3. Channelizing devices
   4. Arrow boards
   5. Barricades
   6. Traffic cones

2.3 OTHER EQUIPMENT

A. Other items, which include safety vests, flags or signs for flagmen, and communication devices, shall be standard and adequate for their intended function. They shall be in accordance with the NYSDOT Standards Specifications and the MUTCD where applicable.

PART 3 - EXECUTION

3.1 GENERAL

A. All work under this section shall be performed in accordance with NYSDOT Standard Specifications, the MUTCD, and as stated herein.

B. Protect workers and provide for safe and convenient public travel by furnishing, erecting, and maintaining all signs, signals, markings, traffic cones, barricades, warning lights, flaggers, and other traffic control devices required for the type of operation being performed.

C. Keep all roads free of debris and spillage from hauling equipment at all times. Haul routes shall be cleaned at least once per day to limit dust generation. Dry brooming is prohibited.

D. Provide access at all times to private property.
E. Furnish the name of the individual in direct employ of the CONTRACTOR who is to be responsible for the installation and maintenance of the traffic control for the project. If the installation and maintenance are to be accomplished by a subcontractor, consent shall be requested of the ENGINEER at the time of the pre-construction conference. This shall not relieve the CONTRACTOR of the foregoing requirement for a responsible individual in his direct employ.

F. The CONTRACTOR shall take necessary measures, in addition to those required by Federal, State and local laws and regulations, to minimize the migration of dust and earthen material from construction areas including the utilization of wind indicators and air monitoring.

G. Dust generating surfaces within the active work limits shall be maintained as directed in Section XI Supplementary Specifications: Section 01 57 13 – Temporary Erosion and Sedimentation Controls and sprayed with clean water from approved sources (i.e. hydrants for which permits have been obtained) to provide complete moistening of the ground, or as otherwise directed by the ENGINEER.

H. The CONTRACTOR shall not track, or transport construction vehicles contaminated from the Exclusion Zone offsite or on to offsite roadways. All equipment/vehicles leaving the Exclusion Zone must be decontaminated in accordance with Section XI Supplementary Specifications: Section 01 74 23 – Decontamination.

I. The CONTRACTOR shall be responsible for the removal and disposal of earthen material that is tracked onto site and off-site roadways by construction vehicles. The CONTRACTOR shall continually inspect roadways and remove the materials immediately to maintain a clean and hazard free driving surface.

3.2 COORDINATION AND SCHEDULE

A. No traffic shall be disrupted over holiday weekends.

B. Permits for work in all rights of way shall be prepared, submitted and accepted prior to any work in the areas affected.

END OF SECTION 01 55 26
PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the CONTRACTOR requirements for the following items:
   1. Soil Stabilization
   2. Temporary Construction Seeding
   3. Temporary Perimeter Controls (Temporary Silt Fence and Fiber Rolls)
   4. Temporary Stabilized Construction Entrance
   5. Access Road Ditch
   6. Maintenance of Temporary Stormwater Bench
   7. Temporary Let-Down Channel
   8. Temporary Check-Dam
   9. Temporary Rock Outlet Protection
  10. Temporary Stormwater Diversion Dike
  11. Stormwater Pollution Prevention Plan (SWPPP)

B. The temporary erosion and sedimentation controls Work to be done and paid for shall not be limited to the extent described herein but shall include all incidental work necessary for the completion of the work. The CONTRACTOR’s Work Plan shall describe the selected means and methods for this work. Additional erosion and sedimentation controls beyond what has been identified on the Contact Drawings and within this specification may be necessary and will be the responsibility of the CONTRACTOR.

C. Due to known contamination in the surface and subsurface soils within the Operable Units (OU-1, OU-2, and OU-3), soil stabilization and erosion prevention are of critical importance to prevent contamination of offsite and uncontaminated areas. As such, certain controls including soil stabilization with the Temporary Soil Stabilizer (a hydraulically applied Polymer Stabilized Fiber Matrix) is required on disturbed soil surfaces where this practice would normally not be required.

D. Related Sections:
   1. Section XI Supplementary Specifications: Section 31 32 00 – Sediment Processing
   2. Section XI Supplementary Specifications: Section 31 23 23 – Fill for Restoration

1.2 REFERENCES

A. New York State Department of Environmental Conservation (NYSDEC)
   2. Permit No. GP-0-20-001 – SPDES General Permit for Stormwater Discharges From Construction Activity (29 January 2020)
B. New York State Department of Transportation (NYSDOT)
   1. Standard Specifications (1 September 2020)

1.3 PERFORMANCE REQUIREMENTS

A. CONTRACTOR shall be responsible for the selection, design, furnishing, testing, operation, and maintenance of the Temporary Check-Dams, Temporary Let-Down Channels, and Temporary Rock Outlet Protection.

1.4 SUBMITTALS

A. Product Data (Informational Submittal)
   1. Temporary Construction Seed Mixes
   2. Temporary Soil Stabilizer
   3. Temporary Stabilized Construction Access materials
   4. Temporary Silt Fence materials
   5. Fiber Roll materials
   6. Material for Temporary Check-Dam
   7. Materials for Rock Outlet Protection
   8. Materials for Temporary Diversion Dike

B. Manufacturer’s Instructions (Informational Submittal)
   1. Temporary Soil Stabilizer

C. Stormwater Pollution Prevention Plan (SWPPP) (Action Submittal)
   1. Prepare a Stormwater Pollution Prevention Plan in accordance with the NYSDEC SPDES Permit for Stormwater Discharges from Construction Activity (GP-0-20-001). The SWPPP shall include at a minimum:
      a. Describe the erosion and sediment control practices to be employed.
      b. Document the selection, design, installation, implementation, and maintenance of the control measures and practices that will be used.
      c. Identify sources of pollution which may be reasonably expected to affect the quality of stormwater discharges.
      d. Update the SWPPP as necessary whenever current provisions prove to be ineffective in minimizing pollutants.
   2. Submit the sooner of 7 days prior to the pre-construction conference, or 30 days prior to CONTRACTOR’s scheduled mobilization to the Site.

D. Erosion and Sedimentation Controls Inspection Reports. Submit within 7 days of each inspection. (Informational Submittal)

1.5 PERMITS

A. The CONTRACTOR shall comply with all federal, state, and local permits obtained or applied for pertaining to this Work.
B. The CONTRACTOR shall comply with work restrictions as outlined in the permits. If discrepancies exist between these Technical Specifications and the applicable permits, the most stringent standard shall apply.

C. The erosion and sedimentation controls Work is intended to meet the intent of the requirements under the NYSDEC State Pollutant Discharge Elimination System (SPDES) Permit for Stormwater Discharges from Construction Activity (GP-0-20-001). A Storm Water Notice of Intent for SPDES coverage will not be required on this State Superfund project. However, the SWPPP will be required to be submitted by the CONTRACTOR to the ENGINEER/DEPARTMENT for review and approval.

PART 2 - PRODUCTS

A. Temporary Check-Dam
1. Materials (stone filling and geotextile) shall meet the requirements of NYSDOT Standard Specifications 209-2.04 Check Dams.
2. Stone filling shall be locally derived from sources within NYSDOT Regions 4 or 5.

B. Temporary Construction Seeding Mix
1. Ryegrass
2. Certified ‘Aroostook’ Winter Rye

C. Temporary Erosion Control Matting
1. Temporary Erosion Control Matting shall meet the requirements of NYSDOT Standard Specifications 713-07 Class II Type C Rolled Erosion Control Product and be comprised of 100% organic materials. Manufacturer and product shall appear on the NYSDOT Materials Approved List for 713-07 Class II Type C.

D. Temporary Fiber Roll
1. Sediment control logs shall be Sedimax-SW9, manufactured by North American Green, or an approved equivalent.
   a. Fiber Rolls shall be a machine-produced tube of compacted straw, rice or wheat straw, excelsior, coir, or coconut that is Certified Weed Free Forage, by a manufacturer whose principal business is sediment control log manufacturing.
   b. The netting shall consist of seamless, high-density polyethylene and ethyl vinyl acetate and contain UV inhibitors.
   c. The sediment control log shall meet the following performance requirements:

<table>
<thead>
<tr>
<th>Physical Property</th>
<th>Test Procedure</th>
<th>Strength Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mass per Unit Weight</td>
<td>Field Measured</td>
<td>1.6 lbs./ft.</td>
</tr>
<tr>
<td>Dimension</td>
<td>Field Measured</td>
<td>6.0 to 8.0 in. diameter</td>
</tr>
<tr>
<td>Netting Unit Weight</td>
<td>Certified</td>
<td>0.35 oz./ft.</td>
</tr>
<tr>
<td>Straw Fiber</td>
<td>Field Measured</td>
<td>3.0 Avg. Length in.</td>
</tr>
<tr>
<td>Fiber Content</td>
<td>Field Measured</td>
<td>100 % Straw</td>
</tr>
</tbody>
</table>
2. **Stakes**  
a. Stakes shall be wooden with the dimensions of 2 inches X 2 inches X 24 inches.

E. **Temporary Let-Down Channel**  
1. Materials (pipe, gravel bags, gravel, geotextile bedding, stone filling) shall meet the requirements of NYSDOT Standard Specifications 209-2.07 Pipe Slope Drain.  
2. Stone filling shall be locally derived from sources within NYSDOT Regions 4 or 5.

F. **Temporary Rock Outlet Protection**  
1. Rock shall be field rock or rough unhewn quarry rock. The rock shall be hard and angular and of a quality that will not disintegrate on exposure to water or weathering.  
a. Rock shall be locally derived from sources within NYSDOT Regions 4 or 5.  
2. Geotextile shall meet the requirements of Stabilization Geotextile as specified in Section XI Supplementary Specifications: Section 31 05 19 – Geotextiles.

G. **Temporary Silt Fence**  
1. Filter Fabric shall meet the requirements of NYSDOT Standard Specification 737.0107 Recycled/Reinforced Needle-Punched – Non-woven and the requirements of NYSDOT Standard Specification Table 737-01G.  
a. Fabric shall be uniform in texture, uniform in appearance, contain no defects, flaws, or tears affecting the physical properties.  
b. Fabric shall contain UV inhibitors and stabilizers providing a minimum service lift of at least 2 years during outdoor exposure.  
2. Posts  
a. Wood, metal, or synthetic posts may be used. Softwood post shall be 1½" x 3½ ", hardwood post shall be at least 1¼ " x 1¼", steel post shall be "T" or "L" shaped in cross section, with a minimum weight of 1.33lbs./ft.  
b. Posts shall be a minimum of 4’ long and shall be spaced a maximum of 4 feet apart unless otherwise recommended by the manufacturer.  
c. Furnish posts to meet the minimum requirements in the NYSDOT Standard Specifications 209-2.05 Linear Measures.  
3. Mesh Support  
a. Furnish mesh support to meet the minimum requirements in the NYSDOT Standard Specifications 209-2.05 Linear Measures.  
4. Fasteners  
a. Furnish fasteners to meet the minimum requirements in the NYSDOT Standard Specifications 209-2.05 Linear Measures.

H. **Temporary Soil Stabilizer**  
1. Temporary Soil Stabilizer shall be a Polymer Stabilized Fiber Matrix (PSFM) that meets the following requirements of Class IV Soil Stabilizers Type A PSFM (NYSDOT Standard Specifications 713-07)

I. **Temporary Stabilized Construction Access**  
1. Stabilization Geotextile  
a. See Section XI Supplementary Specifications: Section 31 05 19 – Geotextiles  
2. #3 Crushed Stone or Gravel  
a. #3 Crushed Stone or Gravel shall meet the requirements of NYSDOT Standard Specifications 703-0201 or 703-0202 #3 Crushed Stone or Gravel.
b. #3 Crushed Stone shall be locally derived from sources within NYSDOT Regions 4 or 5.

PART 3 - EXECUTION

3.1 INSTALLATION OF EROSION AND SEDIMENTATION CONTROLS

A. Temporary Stabilized Construction Access
1. Install Temporary Stabilized Construction Access prior to any soil disturbance activities occur at each location.
   a. Place Stabilization Geotextile over stable subgrade.
   b. Install #3 Crushed Stone or Gravel in a minimum thickness of 6 inches. Install a 3 foot wide berm of #3 Crushed Stone or Gravel near the entrance of the structure.
2. Route all construction traffic over the Temporary Stabilized Construction Access controls.
3. Provide periodic top dressing with additional stone or additional length as conditions demand.
4. Remove daily all sediment spilled, dropped, washed, or tracked onto the surrounding roadways.
5. Provide additional entrances for construction phasing as required.

B. Temporary Perimeter Controls
1. Install Temporary Perimeter Controls on the downgradient limit of all work areas to prevent uncontrolled discharge of stormwater. Install Temporary Perimeter Controls around stockpiles.
2. Temporary Silt Fence
   a. Protect downstream and adjacent properties, drainage channels, and streams from damage due to erosion resulting from project construction operations.
   b. Provide silt fences where shown on the Contract Drawings and as described in the CONTRACTOR’S approved SWPPP as a temporary structural practice to minimize sediment runoff.
   c. Install silt fences to retain sediment prior to initiating each phase of work where erosion would occur in the form of sheet and rill erosion (e.g. clearing and grubbing, excavation, embankment, and grading).
   d. Place silt fence parallel with grading contour.
   e. The ends of the fence shall be extended up slope to prevent water from flowing around ends of the fence.
3. Temporary Fiber Rolls
   a. Remove all rocks, clods, vegetation or other detritus so that the installed fiber rolls shall have direct contact with the ground, within a small trench.
   b. The fiber rolls shall be installed perpendicular to the slope.
   c. Install the fiber rolls, ensuring that no gaps exist between the ground and the bottom of the fiber rolls. The ends of adjacent fiber rolls should be tightly abutted so that no opening exists for water or sediment to pass through. Alternately, fiber rolls may be lapped, 6-inches minimum to prevent sediment passing through the field joint.
   d. Wooden stakes should be used to fasten the fiber rolls to the ground. When conditions warrant, a straight metal bar can be used to drive a pilot hole-through the fiber rolls and into the ground.
e. Wooden stakes should be placed 6” from the fiber roll end angled towards the adjacent fiber roll and spaced at 2 feet leaving less than 1-2 inches of stake exposed above the fiber roll. Alternately, stakes may be placed on each side of the fiber roll tying across with a natural fiber twine or staking in a crossing manner ensuring direct soil contact at all times.

f. Terminal ends of fiber rolls may be dog legged up slope to ensure containment and prevent channeling of sedimentation.

g. Care shall be taken during installation to avoid damage occurring to the fiber rolls as a result of the installation process. Should the fiber rolls be damaged during installation, a wooden stake shall be placed either side of the damaged area terminating the log segment.

C. Soil Stabilization Procedures

1. Disturbed soil surfaces that will or have remained inactive for 7 days shall be stabilized. Stabilization shall include application of Temporary Construction Seeding and Temporary Soil Stabilizer or permanent stabilization with the installation of Topsoil and the applicable seed mix and mulch in accordance with Section XI Supplementary Specifications: Sections 31 23 23 – Fill for Restoration and Section 32 92 19 - Seeding. Additionally, all disturbed soil surfaces shall be stabilized in accordance with this Section prior to the Winter Shutdown.

2. See Section XI Supplementary Specifications: Sections 31 23 23 – Fill for Restoration and Section 32 92 19 – Seeding for permanent stabilization procedures.

3. Apply Temporary Construction Seed Mix in accordance with Standards and Specifications for Temporary Construction Area Seeding (Blue Book).
   a. Scarify surface if seeding is performed more than 24 hours after disturbance.
   b. During March to September, seed areas with Ryegrass at 30 lbs. per acre
   c. During October to February, seed areas with Certified ‘Aroostook’ Winter Rye at 100 lbs. per acre.
   d. Upon completion of seeding, immediately apply Temporary Soil Stabilizer to disturbed soil surfaces within OU-1, OU-3, and on slopes greater than 3H:1V outside of the operable unit boundaries.

4. Apply Temporary Soil Stabilizer in accordance with the manufacturer’s instructions and the Standards and Specifications for Loose Stabilization Blankets (Blue Book) and manufacturer’s instructions. To prevent suspension and erosion of potential contaminated sediment, the Temporary Soil Stabilizer shall be applied over all disturbed surfaces within OU-1 and OU-3, regardless of slope. Outside of the operable units, the Temporary Soil Stabilizer shall be installed over all surfaces at a slope of 3H:1V or steeper.

5. Limit total area of un-stabilized soils to 4 acres. No un-stabilized soil surfaces are allowed during the Winter Shutdown period.

6. Provide a qualified inspector to inspect all soil disturbance activities at least once every 7 calendar days. If soil disturbance activities are suspended and disturbed soils have been stabilized, a qualified inspector shall inspect all work areas at least once every 30 calendar days. Inspect the Site in accordance with Section XI Supplementary Specifications: Section 01 14 35 – Winter Shutdown during the Winter Shutdown period.

7. Where additional measures are required to prevent erosion, install Temporary Erosion Control Matting.

D. Access Road Ditch
1. Install Access Road Ditch along inside of the Construction Access Road. Provide Rock Outlet Protection at bottom of slope to dissipate energy. Install ditch in accordance with Section XI Supplementary Specifications: Section 31 00 01 – Access Road Construction.

E. Temporary Stormwater Benches
   1. Route Temporary Stormwater Benches to safely discharge into the Temporary Let-Down Channels without causing erosive conditions.
   2. Install Temporary Check-Dams every 50 feet along the Temporary Stormwater Benches in accordance with Standard and Specifications For Check Dam (Blue Book).
   3. Ensure grass cover is maintained within the temporary stormwater benches at all times. Repair areas where erosion is noted. If necessary, reinforce the stormwater benches with an erosion control mat if erosive conditions continue.

F. Temporary Let-Down Channel
   1. Install Temporary Let-Down Channel in accordance with Standard and Specifications For Pipe Slope Drain (Blue Book).
   2. Install Temporary Rock Outlet Protection at outlet of the Temporary Let-Down Channels prior to routing flow through the practice.

G. Temporary Rock Outlet Protection
   1. Install Temporary Let-Down Channel in accordance with Standard and Specifications For Rock Outlet Protection (Blue Book).

H. Other Erosion and Sedimentation Controls
   1. As necessary, install other temporary erosion and sediment controls in accordance with the New York Blue Book.
   2. Where additional measures are required to prevent erosion, install Temporary Erosion Control Matting.

3.2 MAINTENANCE

A. Maintain and replace as necessary all erosion and sediment control devices that fail to properly function.

B. Cleaning
   1. When sediment accumulation in sedimentation structures has reached a point one-third depth of sediment structure or device, remove and dispose of sediment.
   2. Do not damage structure or device during cleaning operations.
   3. Do not permit sediment to erode into construction or site areas or natural waterways.
   4. Sediment shall be mixed with Amended Fill and handled in accordance with Section XI Supplementary Specifications: Section 31 32 00 – Sediment Processing.

3.3 INSPECTIONS

A. General
   1. Inspect disturbed areas of the construction site; erosion and sedimentation controls; areas that have not been permanently stabilized; areas used for storage of materials; and areas exposed to precipitation, stabilization practices, structural practices, other controls at least once every seven (7) calendar days and within 24 hours of the end of any storm that
produces 0.5 inches or more rainfall at the site. Once disturbed areas have been stabilized, the inspection schedule may be relaxed to once every month with the ENGINEER’s approval. These inspections shall be continued during the Winter Shutdown period defined by Section XI Supplementary Specifications: Section 01 14 35 – Winter Shutdown.

B. Inspections Details
1. Inspect disturbed areas and areas used for material storage that are exposed to precipitation for evidence of, or the potential for, erosion or sedimentation. Observe erosion and sedimentation control measures identified in the SWPPP to ensure that they are operating correctly. Inspect discharge locations or points to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters. Inspect locations where vehicles exit the site for evidence of offsite sediment tracking.

C. Inspection Reports
1. Prepare an Inspection Report for submittal to the ENGINEER and DEPARTMENT after each inspection. The report shall include at a minimum:
   a. Date and time of inspection
   b. Name and title of Qualified Inspector
   c. Description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection.
   d. A description of the runoff at all points of discharge from the construction site.
   e. A description of the condition of all natural surface waterbodies located within and adjacent to the construction site.
   f. Identified of all erosion and sediment control practices and pollution prevention measures that need repair or maintenance.
   g. A description and sketch of all active soil disturbance activities, areas that have been disturbed but are inactive, and areas that have been stabilized since the last inspection.
   h. Corrective actions that must be taken to install, repair, replace, and maintain erosion and sediment control practices and pollution prevention measures.
   i. Identification and status of all corrective actions that were required by the previous inspection.
   j. Digital photographs with date stamp that clearly show the condition of all practices and soil disturbance areas.
2. Maintain copies of the inspection reports with the SWPPP onsite and available for review.

3.4 REMOVAL OF MATERIALS
A. Following completion of the project, all materials shall be removed from the site. The removal of any erosion and sedimentation control measure shall only be performed upon receiving permission from the ENGINEER. All upstream contributing drainage areas to the individual controls shall be vegetatively stabilized, and healthy and vigorous grass shall be present.

END OF SECTION 01 57 13
SECTION 01 76 00 – PROTECTING EXISTING STRUCTURES AND INFRASTRUCTURE

PART 1 – GENERAL

1.1 SUMMARY

A. This Section includes requirements for documenting pre- and post-construction condition of neighboring properties and structures, as well as establish a program to monitor the neighboring structures during the course of the remediation activities. This includes both new construction per the Contract Documents and existing structures and facilities.

1.2 PERFORMANCE REQUIREMENTS

A. The intent of this Section is to document and formalize the CONTRACTOR’s plan to prevent damage or adverse impacts to existing structures and facilities within the limits of work and new construction per the Contract Documents; however, this does not relieve the CONTRACTOR’s obligation to protect from damage or injury all structures, utilities, railway, or other above ground or buried infrastructure within the Limits of Work and also bordering the Limits of Work, and to repair all damage by the CONTRACTOR to the satisfaction of the ENGINEER, at no cost to the DEPARTMENT.

B. All existing infrastructure shall be protected that directly involve or may be encountered by CONTRACTOR operations. The CONTRACTOR shall protect existing infrastructure and other installed construction unless otherwise specified in the Contract Documents for removal or modification. This includes but is not limited to: buildings, garages, sheds, fences, stormwater structures, utility crossings, railway tracks, and all associated and related structures.

C. The CONTRACTOR will engage and pay for third-party inspection and testing services by a Structural Engineer licensed in New York State acceptable to ENGINEER before and during earthwork operations. The Structural Engineer shall have a minimum of five years of experience related to inspection and monitoring of the effects of vibration on structures caused by rock removal or other construction activities (provide documentation for at least three similar projects completed in the last five years).

D. The structural engineer will be required to conduct Baseline Structures Inspections consisting of external and internal examinations (as appropriate) of neighboring structures as indicated herein, including documentation of pre- and post- construction conditions.

E. During the pre-construction phase, if there are concerns about an adjacent structure’s integrity the structural engineer shall develop a monitoring plan that will be implemented during the construction phase. Structure monitoring during construction activities shall be determined by the structural engineer and may include but is not limited to vibration monitoring, crack monitoring/crack gauges, or pre- and post- construction high-precision conventional survey of foundations and structures.

F. The structural engineer shall prepare a “Baseline Structures Inspection Report”, and “Post-Construction Structures Inspection Report” for each structure that documents the
structural conditions supplemented with photo documentation collected during the inspections.

G. The structural engineer shall perform monitoring and observe rock removal and other excavation and construction procedures for conformance with the limits specified in the Contract Documents and with prior submittals.

H. Inspection by the structural engineer shall not relieve the CONTRACTOR of the responsibility for compliance with the contract requirements. The CONTRACTOR shall cooperate with the structural engineer in performing its services and shall provide a minimum of 72 hours’ notice prior to any rock removal activities.

I. All work shall be subject to inspection by the ENGINEER and third-party structural engineer to assure conformance to the requirements of the Contract Documents.

J. The CONTRACTOR shall be responsible for conformance of materials and services to the specified requirements of the Contract Documents and for the quality of performance of its subcontractors.

1.3 SUBMITTALS

A. Structures Inspection Reports
   1. Baseline Structures Inspection Report, signed by a New York State licensed Structural Engineer from the third-party firm.
   2. Post-Construction Structures Inspection Report, signed by a New York State licensed Structural Engineer from the third-party firm.

B. Existing Structure and Infrastructure Protection Plan, detailed below.
   1. Initial
   2. Monitoring reports
   3. Final Revised

C. Structure Inspector’s Qualifications
   1. The CONTRACTOR will subcontract a third-party qualified engineering firm for inspection of existing structures, and all inspectors will have minimum qualifications of a degree in civil or structural engineering, 5 years of experience inspecting structures, additional experience evaluating overall structure integrity.
   2. All structure inspectors will have a minimum of 24-hour Occupational Safety and Health Administration (OSHA) Hazardous Waste Operations and Emergency Response (HAZWOPER) health and safety training compliant with 29 CFR 1910.120.
   3. All work shall be managed and overseen by the New York State licensed Structural Engineer signing the Baseline Structures Inspection Report and Post-Construction Structures Inspection Report and the Existing Structure and Infrastructure Protection Plan.

1.4 EXISTING STRUCTURE AND INFRASTRUCTURE PROTECTION PLAN

A. Submit an Existing Structure and Infrastructure Protection Plan for review by the ENGINEER. Provide sufficient time for review and discussion of the Plan with the ENGINEER before significant work begins at the site. The purpose of the Existing
Structure and Infrastructure Protection Plan is to identify and present a comprehensive inspection of existing structures, as well as an overview of known or potential issues with the condition of infrastructure present in the Limits of Disturbance and vicinity. In the event that a structure (e.g. sheds, garages) needs to be moved, contents of structure shall also be photographed and inventoried. Additionally, the intent of the plan is to document any changes or damage as a result of the work, and finally to document that the CONTRACTOR’s activities have avoided impacts to existing infrastructure or have restored any damaged or otherwise affected structures to equal or better condition than before the work of the Contract.

B. Issues of concern with existing infrastructure must be defined within the Existing Structure and Infrastructure Protection Plan, including the CONTRACTOR’s resolution to complete the work of the Contract Documents while managing operations to protect existing structures. Address each topic at a level of detail commensurate with the issue and required construction task(s) to provide the protection.

C. At a minimum, the Plan shall include:

1. Identification of the infrastructure to be monitored.
2. Detailed written description of the infrastructure protection measures that will be utilized and a detailed explanation of how they will be implemented and monitored.
3. For items that are to be temporarily relocated, (e.g. sheds, playsets, fences, etc.) the condition, inventory of contents as applicable, and proposed temporary location.
4. Protective measures to prevent equipment contact with, and to prevent damage to, existing railroad infrastructure.
5. Plan view of locations for survey monitoring monuments and other proposed monitoring instrumentation and equipment, including drawing details identifying product specifications, size, and dimensions of monitoring features.
6. Description of all applicable utilities in service, their location relative to major elements of the project and the approach being taken to protect the structures.

D. The Existing Structure and Infrastructure Protection Plan must identify in detail, all contractor structural engineering inspection activities to complete the Baseline Structures Inspection and the Post-Construction Structures Inspection.

E. Prior to submittal of the Initial Infrastructure Protection Plan, meet with the ENGINEER for the purpose of discussing the implementation of the initial Infrastructure Protection Plan; possible subsequent additions and revisions to the plan including any data processing and reporting requirements; and methods for administration. The Existing Structure and Infrastructure Protection Plan must be current and maintained onsite by the CONTRACTOR under the supervision of the CONTRACTOR’s New York State-licensed Structural Engineer. Upon completion of the Post-Construction Structures Inspection, submit a Final Revised Infrastructure Protection Plan to be included with the Post-Construction Structures Inspection Report.

F. If recommended by the Structural Engineer, a qualified Land Surveyor licensed in New York State, with a minimum of 5 years of experience in high-precision surveys for structure deflection monitoring or similar work shall be provided by the CONTRACTOR for survey monitoring of existing structures.
1.5 QUALITY CONTROL

A. A Structural Engineer licensed in the State of New York and experienced in structural condition inspections shall be responsible for performing the work of this Section. The licensed Structural Engineer will coordinate all work of the structures inspections, monitoring, and survey of structures. The licensed Structural Engineer will be independent from the CONTRACTOR’s workforce and will supervise all monitoring activities during construction, and prepare, sign, and seal a Post-Construction Structures Inspection Report that demonstrates the condition of structures has not been compromised or damaged without receiving necessary repairs.

B. Damage may be physical damage, structure movements such as settlement or deflection, or cosmetic damage that increases corrosion of coated metal surfaces or otherwise reduces design life of structural elements, appurtenances, and associated facilities.

PART 2 - PRODUCTS - Not Used

PART 3 - EXECUTION

3.1 UTILITIES IN SERVICE

A. Call New York 811, and receive clearance not less than 10 working days before performing work.
   1. Request underground utilities to be located and marked within and surrounding construction areas.

B. Coordinate with public and private utility companies with underground utilities or utility crossings and describe in the Infrastructure Protection Plan all applicable utilities in service, their location relative to major elements of the project and the approach being taken to protect the structures.

C. Available utility information compiled during the design is provided on the Engineering Drawings. The existing utility information is provided for the CONTRACTOR’s information only and the ENGINEER assumes no responsibility for the accuracy or completeness of the information. Utility information for potential utility crossings of Willetts Creek and Lake Capri, bridge crossings, creek embankments and lake shorelines, and areas adjacent to Montauk highway are areas requiring additional CONTRACTOR investigation. The CONTRACTOR shall take full responsibility for verifying the provided information and collecting any additional information as necessary to assure the location of structures and utilities. This also includes utilities on residential properties.

D. The CONTRACTOR shall verify utility information prior to the start of construction, and during construction shall exercise their own judgment regarding prudence of dredging or capping nearby known or suspected utility crossings given the design intention to avoid risk to public health and the environment, and to provide for worker safety.
3.2 STRUCTURES INSPECTIONS

A. Inspections shall include both external and, as appropriate, internal examinations of the following properties/structures in the vicinity of and within a 150-ft radius of the limits of disturbance.

<table>
<thead>
<tr>
<th>Structure #</th>
<th>Address/Description</th>
<th>Town of Lockport</th>
<th>Type of Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5723 Old Upper Mt. Rd.</td>
<td>108.00-1-18</td>
<td>Residential</td>
</tr>
<tr>
<td>2</td>
<td>5723 Old Upper Mt. Rd.</td>
<td>108.00-1-18</td>
<td>Garage</td>
</tr>
<tr>
<td>3</td>
<td>5719 Old Upper Mt. Rd.</td>
<td>108.00-1-17</td>
<td>Residential</td>
</tr>
<tr>
<td>4</td>
<td>Railroad</td>
<td>700.00-44-1</td>
<td>Railroad Tracks</td>
</tr>
</tbody>
</table>

B. Inspections shall be performed prior to the initiation of construction activities, and within 2 to 4 weeks after construction activities are complete. The inspection documentation shall consist of visual interior and exterior surveys with photographic techniques. The engineer is expected to survey the condition of the structures to identify:
1. Existing structural defects
2. Signs of structural damage, distress or deformation
3. Signs of deterioration
4. Assess the use of the building
5. Look for additions, or alterations that may have an adverse effect on the building
6. Identify any building envelope conditions that may adversely affect the structural system

C. The structural engineer shall immediately notify the CONTRACTOR and ENGINEER of any obstructions blocking the view of a wall or other surfaces that may impede completeness of inspection.

D. The inspections shall document current conditions and defects including but not limited to signs of settlement, foundation cracks, slab cracks, signs of prior flooding, wall cracks, and deformation.

E. Prior to the start of construction activities, the CONTRACTOR’s Structural Engineer shall perform a joint Baseline Structures Inspection for pre-construction conditions. Following the structure inspections, the Structural Engineer shall prepare a Baseline Structures Inspection Report. The report shall be signed by the Structural Engineer certifying its accuracy and completeness.

F. The inspection shall include, at a minimum, the following:
1. For steel or other metallic structures, look for loose connections, corrosion and/or flaking, impact damage and pitting of the metal.
2. For concrete structures, look for cracking, efflorescence/exudation and leaching (white deposits caused by moisture leaching through the concrete), scaling, delamination, spalling and/or signs of exposed rebar, and other damage.
3. For timber structures, look for evidence of insect damage, rot, cracking or splitting, impact damage, connecting hardware problems, or broken pieces.
4. Detail inspection using engineering sketches and measurements, video recordings, photographs, and notes, for any existing structural or cosmetic damage.

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G. Any deviations from the existing conditions shown on the Drawings should be noted, and, if necessary, the ENGINEER shall be consulted to determine if changes are needed.

H. The Baseline Structures Inspection shall include representative photo documentation clearly labeled including position of the structure of interest.

I. The Baseline Structures Inspection Report shall include, at a minimum, the following:
   1. Purpose of the assessment
   2. Scope of service provided including any limitation or restrictions imposed on the Structural Engineer conducting the assessment
   3. A general description of the building and its structure
   4. Summary of areas reviewed, personnel involved, methodology, and observations
   5. Narrative of findings from visual inspection, analysis, conclusions
   6. Assessment of whether construction activities could impact the structure(s)
   7. Recommendations of any precautions to be taken prior to and during excavation activities, e.g. vibration monitoring procedures and vibration (ground acceleration, frequency) limits, etc.
   8. Photographs, sketches, notes, etc. from inspection
   9. The report shall be reviewed, stamped, and signed by a licensed NYS Professional Engineer.

J. Upon conclusion of Work, the CONTRACTOR’s Structural Engineer and the ENGINEER shall participate in a joint Post-Construction Structures Inspection. Following the post-construction structures inspection, the Structural Engineer shall prepare the Post-Construction Structures Inspection Report.

K. The Post-Construction Structures Inspection Report shall compare the results of baseline and post-construction inspections, present and interpret monitoring data, and include, at a minimum, the following:
   1. Document the condition of the properties following excavation using measurement and photographic methods.
   2. Document any changes to the cracks and anomalies that were identified during the pre-construction survey and note any new anomalies or cracks.
   3. Identify likely causes if changes or new cracks/anomalies are observed.
   4. If it is decided that damages were incurred due to construction activities, include recommendations to repair damages.

L. The Post-Construction Structures Inspection Report shall include a required statement that in the Structural Engineer’s professional opinion, all structures included in the baseline inspection have interpreted conditions as follows (any combination or all of these conditions may apply among the existing structures):
   1. Unaffected during construction as demonstrated by monitoring
   2. Any incidental damage sustained during construction has been repaired in such a manner to not reduce the remaining service life of the existing structural elements.
   3. Any damage to structures of a more serious nature has been addressed through immediate repairs or other modifications in coordination with the Engineer and with written consent of the owner of the infrastructure, has been implemented safely and in accordance with accepted standards of practice, and has been restored to an equal or better condition than before the baseline structures inspection.

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4. Demolished during construction and disposed offsite with agreement from Engineer and consent of the owner of the infrastructure and has been implemented safely and in accordance with accepted standards of practice.

3.3 MONITORING

A. The Existing Structure and Infrastructure Protection Plan shall identify each existing structure or other site feature the licensed Structural Engineer has identified for monitoring, and the type of monitoring, and frequency of monitoring to be performed. This may be included as part of the Baseline Structures Inspection Report or as a separate deliverable.

B. Monitoring of structures that may be adversely affected by construction activities shall be performed continuously.

C. The CONTRACTOR shall prepare weekly and monthly reports for the DEPARTMENT documenting this monitoring, including daily reporting as indicated in Technical Specifications. The Contractor’s Daily Construction Quality Control (CQC) Report shall include all monitoring activities performed for the day, the time of the monitoring, and conditions at the time of monitoring (such as weather, air and water temperature, water level elevations, construction activities adjacent to the area of monitoring, any signs of disturbance or damage to monitoring components or equipment, and other relevant information).

3.4 PHOTO AND VIDEO DOCUMENTATION

A. Photo document existing infrastructure and other installed construction prior to the beginning of work as part of the Baseline Structures Inspection of. Photos should be color and in digital JPG format, and of at least 10-megapixel quality.

B. Photo documentation for the Post-Construction Structures Inspection of existing structures shall be repeated from the same vantage point and scale as the baseline condition and included in the report with licensed Structural Engineer remarks on the comparison and final condition of the structure or structural element.

3.5 SURVEYS (X, Y, Z POSITION MONITORING)

A. Install fixed, sturdy, survey monitoring points on existing structures and use accurate instrumentation and experienced surveyors to provide repeatable and precise monitoring of the survey targets during the period of construction. Provide the Contractor’s degree of accuracy for survey in the Existing Structure and Infrastructure Protection Plan for review by the ENGINEER.

B. Maximize use of high-accuracy survey, using methods that provide high-precision surveying for repeatability and avoidance of false positive or false negative trending. Required accuracy is 0.001 foot. All survey events shall utilize the same monitoring technologies for comparability and consistency.

C. Utilize a New York State-licensed Land Surveyor for all position monitoring using land survey techniques for both the conventional land survey and optical survey methods.
3.6 INCLINOMETERS

A. If recommended by the Structural Engineer, proposed locations for inclinometers shall be submitted for approval by the ENGINEER. Locate the tops of inclinometers x, y, z using survey.

3.7 VIBRATION MONITORING

A. If recommended by the Structural Engineer, vibration monitoring procedures shall be included in the Existing Structure and Infrastructure Protection Plan. Site-specific recommendations shall be provided for vibration monitoring procedures and vibration (ground acceleration, frequency) limits, if applicable.

3.8 NOTIFICATION

A. The CONTRACTOR shall notify the ENGINEER immediately upon the discovery of any structural defects, deficiencies or damages which may cause loss of life, affect safety, or potentially damage property as part of the Existing Structure and Infrastructure Protection Plan.

B. If damage or structural defects arise as the result of the CONTRACTOR activities, provide notifications as identified in the plan, and immediately repair damaged structures to the satisfaction of the owner of the infrastructure at no cost to the DEPARTMENT.

C. The CONTRACTOR shall repair and restore to the satisfaction of the owner of the infrastructure of any existing or temporary or other installed construction that may become damaged or disturbed as a result of the work or the activity of the CONTRACTOR’s personnel.

D. If the ENGINEER determines that the damage cannot be repaired to the original (functioning) condition, then the damaged feature shall be replaced-in-kind at the CONTRACTOR’s expense.

END OF SECTION
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SECTION 02 41 19

DEMOLITION AND ABANDONMENT

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes:
1. Demolition and removal of fencing and gate
2. Demolition and removal of sanitary sewer piping
3. Demolition and removal of sanitary sewer manholes
4. Plugging of sanitary sewer pipes
5. Abandonment of RCP Pipe at the Gulf Creek Seep
6. Abandonment of sanitary sewer manholes
7. Abandonment of Monitoring Wells

B. The demolition and abandonment work to be done and paid for shall not be limited to the extent described herein but shall include all incidental work necessary for the completion of the work. The CONTRACTOR’s Work Plan shall describe the selected means and methods for this work.

C. Related Sections:
1. Section X Standard Specifications: Section 01 33 00 – Submittal Procedures
2. Section X Standard Specifications: Section 01 73 00 – Field Engineering
3. Section XI Supplementary Specifications: Section 31 23 16 – Excavation
4. Section XI Supplementary Specifications: Section 31 23 23 – Fill for Restoration
5. Section XI Supplementary Specifications: Section 32 92 19 – Seeding

1.2 REFERENCES

A. New York State Department of Environmental Conservation (NYSDEC)
1. CP-43 – Groundwater Monitoring Well Decommissioning Procedures (August 2009)

B. New York State Department of Transportation (NYSDOT)
1. Standard Specifications (1 September 2020)

C. Occupational Safety and Health Administration (OSHA)
1. 29 CFR 1910.120 – Hazardous Waste Operations and Emergency Response

1.3 SUBMITTALS

A. Product Data (Informational Submittal)
1. Common Fill
2. Sand Base
3. Portland Cement Concrete (cement, coarse aggregate, fine aggregate)
4. Topsoil
5. Watertight Cap or Plug
B. Manufacturer’s Instructions (Informational Submittal)
   1. Watertight Cap or Plug

C. Demolition and Abandonment Plan (as a component of the Work Plan)
   1. As required by Section X Standard Specifications: Section 01 33 00 - Submittal
      Procedures.
   2. Provide the following as a component of the Work Plan:
      a. Description of demolition and abandonment methods and materials.
      b. Demolition, abandonment, and removal sequence in regards to other Work.

D. As-Built Surveys
   1. As required by Section X Standard Specifications: Section 01 73 00 – Field Engineering
   2. Provide as-built surveys for locations of abandoned manholes, pipe plugs, and
decommissioned monitoring wells.

PART 2 - PRODUCTS

A. Grout
   1. Grout shall meet the specifications of NYSDEC CP-43.

B. Common Fill
   1. See Section XI Supplementary Specifications: Section 31 23 23 – Fill for Restoration

C. Sand Base
   1. Sand Base material shall meet the specifications of NYSDOT Standard Specification
      703-01 Fine Aggregate Natural Sand. Manufacturer and product shall appear on the
      NYSDOT Materials Approved List for 703-01 Fine Aggregate.
   2. Sand shall be locally derived from sources within NYSDOT Regions 4 or 5.

D. Portland Cement Concrete
   1. Portland Cement Concrete shall meet the specifications of NYSDOT Standard
      Specifications 501 Portland Cement Concrete Type A. Concrete mix design shall include
      substitution of cement with the maximum percentage of fly ash allowable per NYSDOT
      Standard Specification Table 501-3A.

E. Topsoil
   1. See Section XI Supplementary Specifications: Section 31 23 23 – Fill for Restoration

F. Watertight Cap or Plug
   1. Select a watertight cap or plug based on industry standards for the type of pipe to be
      plugged.

PART 3 - EXECUTION

3.1 PREPARATION

A. Verify existing conditions before starting work.
B. Request underground utilities to be located and marked within the construction area prior to completing demolition. Utilize subcontract private utility locate specialists as required to identify and map utilities known or discovered that intersect work areas.

C. Locate, identify, and protect utilities from damage unless Contract Drawings indicate otherwise or ENGINEER approved their removal.

D. Identify temporary stockpile areas for placing removed materials.

E. Notify affected utility companies before starting work and comply with their requirements.

F. Mark location and termination of utilities.

3.2 CONSTRUCTION REQUIREMENTS

A. Perform all Work in accordance with the requirements for work on an uncontrolled hazardous waste site outlined by 29 CFR 1910.

B. The CONTRACTOR shall perform all demolition activities in accordance with Federal, State, and local standards.

C. Demolition work shall not begin in any portion of the site until all known utilities have been staked and verified by the CONTRACTOR. The CONTRACTOR is responsible for the damage resulting from known utilities that are improperly verified, abandoned, and demolished.

D. Completely demolish and remove portions of structures as defined on the Contract Documents, including all appurtenances related or connected thereto, necessary to accommodate new construction.

E. All known utilities to be abandoned or removed have been shown on the Contract Drawings. Any remaining portion of the existing utility shall be plugged with Portland Cement Concrete.

F. Debris resulting from demolition Work shall be handled in accordance with Section XI Supplementary Specifications: Section 31 23 16 – Excavation Subpart 3.3 Debris Handling.

G. Explosives and Blasting are NOT permitted in performance of demolition work.

3.3 ABANDONMENT OF SANITARY SEWER MANHOLES

A. Fill bottom of manholes to be abandoned with Portland Cement Concrete. Ensure concrete enters each inlet and outlet. Fill to a height above all inlets and outlets by at least 6 inches.

B. Demolish manhole structure within 4 feet of the ground surface and remove Debris. Handle Debris in accordance with Section XI Supplementary Specifications: Section 31 23 16 – Excavation Subpart 3.3 Debris Handling.

C. Fill remainder of structure with Sand Base.

D. Backfill above structure and Sand Base with Common Fill in accordance with Section XI Supplementary Specifications: Section 31 23 23 – Fill for Restoration.
E. Place 6 inches of Topsoil to match surrounding grades in accordance with Section XI Supplementary Specifications: Section 31 23 23 – Fill for Restoration.

F. Restore surface with the Upland Seed Mix in accordance with Section XI Supplementary Specifications: Section 32 92 19 – Seeding.

3.4 REMOVE EXISTING SANITARY MANHOLES AND PIPING

A. Remove sanitary sewer pipe and manholes within the horizontal limits identified by the Extent of Sediment Removal as depicted in the Contract Drawings. Remove structures (pipe materials, concrete, etc.) to full depth, even if structures are deeper than the vertical sediment removal limits.

B. Coordinate this work with sediment excavation outlined in Section XI Supplementary Specifications: Section 31 23 16 – Excavation.

C. Handle Debris in accordance with Section XI Supplementary Specifications: Section 31 23 16 – Excavation Subpart 3.3 Debris Handling.

3.5 PLUGGING OF SANITARY SEWER PIPES

A. Pipes to be abandoned in place at the Extent of Sediment Removal shall be capped with a watertight cap or plug encased in Portland Cement Concrete.

B. The concrete pipe plug shall be 12 inches in width or the diameter of the pipe, with the greater of the two dimensions being used.

3.6 MONITORING WELL DECOMISSIONING

A. GENERAL
1. Decommission wells as indicated on the Contract Drawings in accordance with NYSDEC CP-43.
2. Prevent cross-contamination between upper and lower confining layers during decommissioning.
3. Handle Debris in accordance with Section XI Supplementary Specifications: Section 31 23 16 – Excavation Subpart 3.3 Debris Handling.

B. SEQUENCE OF OPERATION
1. Break up and remove the surface concrete seal if present.
2. Excavate the ground surrounding the protective casing of each well scheduled for decommissioning.
3. Remove the protective casing.
4. Remove riser and screen by over boring down the outside of the riser pipe with a hollow stem auger, then pull the riser and screen. Avoid over boring bottom of hole.
5. Use a rock bit if the riser and screen cannot be pulled after over boring.
6. Remove all remaining material from the original annular space.
7. Place the cement/bentonite grout by tremie into the borehole using a 1-inch I.D. grout tube as auger is removed.
8. Allow 24 hours for the grout to cure prior to commencing work in the immediate area.

3.7 REINFORCED CONCRETE PIPE SEEP DEMOLITION AND PLUG

A. Remove the 36-inch RCP pipe associated with the seep to Gulf Creek to the extent necessary to install the Seep French Drain Trench as depicted in the Contract Drawings.

B. Plug the RCP pipe with a Brick Encasement Plug as depicted in the Contract Drawings. Install a 6-inch HDPE perforated pipe through the plug to allow the abandoned pipe to drain into the trench.

C. Remove inactive abandoned sanitary sewer piping in the vicinity of the seep as depicted in the Contract Drawings.

D. Handle Debris in accordance with Section XI Supplementary Specifications: Section 31 23 16 – Excavation Subpart 3.3 Debris Handling.

3.8 PROTECTION

A. Perform demolition in such a manner as to eliminate hazards to persons and property; to minimize interference with use of adjacent areas, utilities and structures or interruption of use of such utilities; to minimize riverbank slope or shoreline instability with removal; and to provide free passage to and from such adjacent areas of structures. Protect existing building components, equipment, and site work from damage except for those portions of the existing facility that are required to be demolished.

B. Provide safeguards, including warning signs, barricades, temporary fences, warning lights, and other similar items that are required for protection of all personnel during demolition and removal operations.

C. The CONTRACTOR shall adhere to all Federal, State, and Local requirements for confined space entry and perform applicable work accordingly.

D. Prevent spread of flying particles and dust. Rubbish and debris shall be sprinkled with water to keep dust to a minimum.

E. Do not use water to the extent it causes flooding, contaminated runoff, or icing.

F. Break concrete or asphalt into less than 3 feet in any dimension.

G. Protect trees not shown to be removed on the Contract Drawings, unless approved otherwise by DEPARTMENT.

H. All Federal, State, and Local fire and safety regulations shall be observed in performance of work and include the following:

I. Whenever a cutting torch or other equipment that might cause a fire is used, provide and maintain fire extinguishers nearby ready for immediate use. All possible users shall be instructed in use of fire extinguishers.
J. Hydrants shall be accessible at all times. No debris shall be permitted to accumulate within a radius of 15 feet of fire hydrants.

K. Remove materials as work progresses. Upon completion of work, leave areas in clean and restored condition.

L. Remove temporary work.

END OF SECTION 02 41 19
PART 1 - GENERAL

1.1 SUMMARY

A. Section includes requirements for treating wastewater generated by Work activities including, but not limited to, decontamination activities, equipment wash water, site process water, soil dewatering liquids, and excavation dewatering liquids.

B. Related Sections:

1. Section X Standard Specifications: Section 01 33 00 – Submittal Procedures.
2. Section XI Supplementary Specifications: Section 02 81 00 – Off-Site Transportation and Disposal
3. Section XI Supplementary Specifications: Section 31 32 00 – Sediment Processing

1.2 REFERENCES

A. New York State Department of Environmental Conservation (NYSDEC)

1. State Pollutant Discharge Elimination System (SPDES) Equivalency Permit

1.3 DEFINITIONS

A. Treated Water Effluent includes liquids which meet the requirements of the Project’s SPDES Equivalency Permit and have been treated by the wastewater treatment system in preparation for discharge.

B. Wastewater shall include surface water, stormwater, rainfall, snowmelt water, groundwater, wash water, decontamination liquids, and any other liquids potentially exposed to Site contaminants. Examples include

1. Liquids generated by sediment processing activities.
2. Liquids generated by decontamination activities.
3. Liquids generated by equipment and Debris cleaning or washing.
4. Liquids removed from excavation areas, haul routes, active Work areas, and fill areas.
5. Other potentially contaminated liquids which are included in the Project’s SPDES equivalency permit.
1.4 PERFORMANCE REQUIREMENTS

A. The CONTRACTOR shall be responsible for all aspects of verifying design parameters, designing, providing, installing, starting, operating, maintaining, performance, and removing the wastewater treatment system.

B. In the event that the water treatment system is not operating properly, and the ENGINEER determines that it needs to be shut down, delays shall be at the CONTRACTOR’s expense.

C. The Treated Water Effluent must meet the surface discharge criteria included in the New York State Water Quality Standards permitting criteria.

D. The CONTRACTOR shall be responsible to design, procure, install, operate, maintain, and remove a wastewater treatment system that will handle all wastewater generated by Work activities, at up to 220,000 gallons per day (gpd), treat the constituents identified in the SPDES Permit Equivalent to project-specific permitted discharge criteria, and discharge back into Gulf Creek.

E. CONTRACTOR shall complete start-up testing and demonstration that the wastewater treatment system meets pre-treatment discharge criteria in the final permits.

F. The wastewater treatment system shall include:
   1. Influent and effluent holding tanks with surge capacity.
   2. Effluent holding tanks designed to allow on-site testing of water quality prior to discharge. The CONTRACTOR shall provide sufficient storage capacity for Treated Water Effluent as needed until testing results demonstrate permit discharge requirements have been met.
   3. Recycle capability for retreatment of effluent not meeting the discharge requirements of this Section, as determined by effluent testing.
   4. Pump for effluent discharge designed to provide adequate discharge flow rate to the selected discharge locations, including diffusion techniques to minimize sediment resuspension and erosion at the discharge point.

1.5 SUBMITTALS

A. Water Treatment Plan (as a component of the Work Plan)

   1. As required by Section X Standard Specifications: Section 01 33 00 - Submittal Procedures.
   2. Prepare a Water Treatment Plan to include as a component of the Work Plan. The Water Treatment Plan shall include details on all unit processes of treatment equipment, including interconnecting piping and pumps, to be employed in the treatment train. Specify the water treatment method to be used and specify the equipment required for that method. At a minimum, the Water Treatment Plan shall include:
      a. Detailed description of the treatment train.
      b. Installation procedures and maintenance requirements.
      c. Flow chart or schematic of water treatment system with flow direction.
      d. Detailed description of Treated Water Effluent discharge piping and temporary outfall.
e. Types, sizes, and quantities of equipment used for water storage, treatment, and discharge including treatment capacities.

f. Indicate power system location and capacity.

g. Include detailed description of the monitoring system with installation procedures and maintenance.

h. Include description of emergency procedures to follow when problems arise.

i. Product data including data on all water treatment system components, pumping equipment, media change-out frequency and procedures, and safety data sheets for chemical components.

j. Wastewater treatment system manufacturer’s operation and maintenance recommendations.

k. Indicate sample collection and analysis procedures to demonstrate compliance with the SPDES Equivalency Permit.

l. Indicate off-site disposal location for spent media and include applicable disposal location permits.

m. Include Qualified Operator(s) Qualifications and Certificates.

3. Prepare a Water Treatment System Operations and Maintenance Plan to include as a component of the Work Plan. This plan shall include operation and maintenance information to verify continuing efficient operation and limit break-downs and other work stoppages. This plan shall include:

a. Spare parts lists for major pieces of equipment.

b. Preventative maintenance schedule for major pieces of equipment.

4. Prepare a Water Treatment System Winterization Plan to include as a component of the Work Plan to ensure efficient operation during cold-weather months.

B. Product Data: Submit information for products necessary for water treatment. Submit at least 20 days prior to product use. *(Informational Submittal)*

C. Manufacturer's Certificate: Certify products meet or exceed specified requirements. Submit at least 20 days prior to product use. *(Informational Submittal)*

D. Daily and Weekly Reports *(Informational Submittal)*

1. Daily operation and maintenance records and reports. Submit by 9:00 am on the day following the day covered by the report.

2. Weekly operation and maintenance records and reports. Submit on the Monday for the preceding 7 days.

1.6 PERMITS

A. DEPARTMENT will provide SPDES Equivalency Permit for discharge (attached in Section IX Supplementary Conditions).

B. The Contractor is required to meet the special requirements of any permits that have been issued including those identified in the Contract Documents, or those to be obtained by the Contractor. These special requirements as specified by local, state, and/or federal permitting agencies shall have precedence to this Section.
1.7 QUALITY ASSURANCE

A. Perform Work in accordance with the Project’s SPDES Equivalency Permit.

B. Qualified Operator: Provide a Qualified Operator(s) with a minimum of 5 years of experience operating wastewater treatment systems for sediment remediation or similar projects.

PART 2 - PRODUCTS

2.1 DEWATERING PAD

A. See Section XI Supplementary Specifications: Section 31 32 00 – Sediment Processing.

2.2 WATER TREATMENT SYSTEM

A. Supply sufficient materials and equipment to meet the following performance requirements:
   1. Wastewater treatment system to handle up to 220,000 gpd.
   2. Meet New York State Water Quality Standards permitting criteria.

B. Provide and maintain equipment with the ability to treat the constituents identified by the SPDES Permit Equivalency through the duration of activities that generate wastewater. The Contractor shall treat/pre-treat wastewater for all constituents identified in the New York State Water Quality Standards permitting criteria.

C. Any polymers, flocculants, coagulants or other additives used shall be approved by the ENGINEER and authorized under the final permits.

PART 3 - EXECUTION

3.1 WATER TREATMENT

A. Install, startup, test, and troubleshoot wastewater treatment system before commencing operation. Do not discharge any water until tests results showing water is below allowable permit limits.

B. Operate wastewater treatment system in accordance with permits, Contract Documents and manufacturer’s recommendations. Update permits with any changes in treatment process, including flow rate, treatment components, treatment media, and additives.

C. CONTRACTOR shall perform all discharge monitoring as required by the NYSDEC Discharge Limits. Concurrent with effluent monitoring sampling, Contractor shall collect two additional samples as directed by the Engineer from upstream components of the treatment system to be analyzed.

D. CONTRACTOR shall provide additional wastewater treatment system capacity if capacity identified in technical proposal is insufficient to maintain work progress to complete the work in
accordance with the Contract Documents and CONTRACTOR’s approved schedule. The Professional Engineer’s Basis of Design assumptions for sizing of the wastewater treatment system for the permit does not relieve the CONTRACTOR from selecting and utilizing an appropriately sized wastewater treatment system that both meets permit requirements and the treatment capacity necessary to achieve the CONTRACTOR’s approved schedule.

E. Monitor, test, and adjust the wastewater treatment system in accordance with the CONTRACTOR’s approved Operation and Maintenance Plan, or as otherwise modified by special regulatory requirements. If there is a conflict between requirements, the more stringent requirement shall prevail. Test water in accordance with Contract Documents and applicable permits.

F. Do not discharge any water until test results showing water is below allowable permit limits. Discharge of treated water shall be to Gulf Creek through a discharge pipe and stabilized outlet. A flow diffuser at the end of the discharge pipeline into the creek, combined with appropriate erosion control measures will be provided to prevent flow discharge scour and erosion-related impacts to the creek at the point-of-discharge.

3.2 WATER TREATMENT SYSTEM OPERATION AND MAINTENANCE

A. At all times, CONTRACTOR shall comply with the approved Operations and Maintenance Plan for the Work.

B. CONTRACTOR shall maintain a qualified Operator, approved by the Engineer, at the site in charge of all aspects of system performance and compliance.

C. CONTRACTOR shall maintain management, operation, and maintenance records; and prepare management, operation, and maintenance reports. All records and copies of reports shall be turned over to the Engineer within 5 days after contract completion.

D. CONTRACTOR shall submit Daily Reports each morning, which cover the prior 24-hours’ work and Weekly Reports on the Monday of each week for the preceding weeks’ work. Daily and Weekly Reports shall note any significant performance or compliance problems during the preceding period, the measures undertaken to correct those problems, and a running summary of such prior problems until their resolution.

E. Operate wastewater treatment system until all water generated has been treated and discharged in accordance with Contract Documents.

F. The Qualified Operator shall provide full-time supervision of the wastewater treatment system.

G. Make required repairs and perform scheduled maintenance.

H. Fill fuel tanks before tanks reach 25 percent capacity.

I. Spent media shall be disposed of off-site at an approved disposal facility.
3.3 WINTERIZATION

A. If CONTRACTOR selects to work in winter months, the water treatment systems shall be winterized to protect from freezing to allow for continuous operation. Submit a Winterization Plan for Engineer approval prior to winterization. Winterization shall include protecting the wastewater treatment system pipelines, pumps, valves, tanks, generators, and other necessary equipment from freezing and ice accumulation with enclosures, insulation, conductive heating, or other approved equivalent.

3.4 SYSTEM REMOVAL

A. Remove the water treatment system only after all Work has been completed that has the potential to generate wastewater. The Contractor is responsible for management of all wastewater generated during the duration of the Contract.

B. At the conclusion of the Work and prior to removing equipment from the site, decontaminate equipment and dispose of waste in accordance Section XI Supplementary Specifications: Section 02 81 00 - Off-Site Transportation and Disposal.

C. Spent media shall be disposed of off-site at an approved disposal facility. Stone associated with the dewatering pad may be disposed of in the Containment Cell in accordance with Section XI Supplementary Specifications: Section 31 23 00.

END OF SECTION 02 72 00
SECTION 02 80 01
DECONTAMINATION

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes:
1. Decontamination facilities
2. Personal hygiene and decontamination
3. Equipment and material decontamination

B. The decontamination work to be done and paid for shall not be limited to the extent described herein but shall include all incidental work necessary for the completion of the work. The CONTRACTOR’s Work Plan shall describe the selected means and methods for this work.

C. Related Sections:
1. Section X Standard Specifications:
   a. Section 01 33 00 – Submittal Procedures
   b. Section 01 51 05 – Temporary Utilities and Controls
2. Section XI Supplementary Specifications:
   a. Section 02 72 00 – Water Treatment
   b. Section 02 81 00 – Offsite Transportation and Disposal
   c. Section 31 05 19 – Geotextiles
   d. Section 31 23 16 – Excavation
   e. Section 31 32 00 – Sediment Processing

1.2 REFERENCES

A. New York Codes, Rules and Regulations (NYCRR)
   1. Part 371 – Identification and Listing of Hazardous Wastes

B. National Institute for Occupational Safety and Health (NIOSH)

C. Occupational Safety and Health Administration (OSHA)
   1. 29 CFR 1910.120 – Hazardous Waste Operations and Emergency Response
   2. 40 CFR 261 – Identification and Listing of Hazardous Waste

1.3 DEFINITIONS

A. Contamination Reduction Zone (CRZ)
   1. The area where decontamination occurs.

B. Exclusion Zone (EZ):
1. The contaminated area. Delineated by the operable unit boundaries (OU-1, OU-2, and OU-3).

C. Hazardous Waste:
   1. Any waste materials contaminated with soils from OU-1, OU-2, or OU-3 which cannot be decontaminated or is otherwise classified as hazardous under 40 CFR 261 or NYCRR Part 371.

D. Non-Hazardous Waste
   1. Any waste materials contaminated with soils from OU-1, OU-2, or OU-3 which has been satisfactorily decontaminated, or waste materials not exposed to soils from OU-1, OU-2, or OU-3 and is not otherwise classified as hazardous under 40 CFR 261 or NYCRR Part 371.

E. Support Zone:
   1. Uncontaminated area where workers should not be exposed to hazardous conditions.

F. Unacceptable Debris:
   1. See Section XI Supplementary Specifications: Section 31 23 16 – Excavation.

1.4 PERFORMANCE REQUIREMENTS

A. Develop decontamination procedures and processes following guidance such as NIOSH 85-115 and in accordance with applicable hazardous waste regulations. CONTRACTOR shall be responsible for the selection, design, furnishing, testing, operation, and maintenance of decontamination equipment required for the Work specified herein. CONTRACTOR shall utilize a closed loop graywater washing system for decontamination of trucks and equipment.

B. CONTRACTOR’s selected approach for site control and decontamination shall be developed to meet federal, state, and local requirements including 29 CFR 1910.120 – Occupational Health and Safety Administration Hazardous Waste Operations and Emergency Response, address project space constraints and presence of nearby residential houses, provide protection of public and worker health, provide protection of the environment, and proactively control impacts to the public such as nuisance odors, dust, noise levels, and contamination of offsite areas with contamination from the site.

C. Provide all labor, materials, and equipment necessary to construct and install a decontamination pad in accordance with Contract Drawings. The decontamination pad will be equipped with a sump on a properly graded area that has no deleterious material. Clean the decontamination pad after daily use. Leave no contamination behind. Dismantle, remove, and properly dispose of the pad and sample below the pad following demobilization at their own expense. Additional separate operational decontamination pads may be required depending on the CONTRACTOR’s selected sequence of work and implemented means and methods. Coordinate with the DEPARTMENT/ENGINEER to ensure proper decontamination procedures are being followed at all times.

1.5 SUBMITTALS

A. Decontamination Plan (as a component of the Work Plan)
1. As required by Section 01 33 00 - Submittal Procedures.
2. Prepare a Decontamination Plan to include as a component of the Work Plan. The Decontamination Plan shall include at a minimum:
   a. Method of decontamination to be used with specifications and capacities
   b. Locations and extent of work zones
   c. Site map depicting
      1) Access routes
      2) Evacuation routes
      3) Work zones
      4) Identification of areas where PPE is required and what type of PPE is required in each area
      5) Locations of decontamination pad and facilities
   d. Site security measures
   e. Communication networks
   f. Location, size, and capacities of the decontamination pads

B. Requests for approval to dispose of material as Hazardous Waste for each instance when decontamination in not feasible. Provide justification and backup explaining why decontamination is not feasible. (*Action Submittal*)

C. Shop drawings of the decontamination pad shall be submitted to the ENGINEER for approval. (*Action Submittal*)
   1. Shop drawing must be submitted at least 20 days prior to Work associated with the drawings.

D. List of material and manufacturers specifications for all products, solvents, and detergents incorporated in the decontamination pad(s) and the decontamination process. (*Informational Submittal*)
   1. Submit material labels and data sheets at least 20 days prior Work associated with products.

PART 2 - PRODUCTS

A. Cleaning Products
   1. Cleaning products shall be phosphate free detergents or biodegradable cleaning products.

B. Stabilization Geotextile
   1. See Section XI Supplementary Specifications: Section 31 05 19 – Geotextiles.

C. Type 1 Underdrain Filter

D. Sand Base
   2. Sand Base material shall be locally derived from sources within NYSDOT Regions 4 or 5.
E. 40-Mil. HPDE Geomembrane
   1. 40 Mil. HDPE Geomembrane shall meet the specifications of NYSDOT Standard Specifications 737.0201.

PART 3 - EXECUTION

3.1 PERSONAL HYGIENE AND DECONTAMINATION
   A. Install and maintain the Decontamination Trailer and Personal Hygiene Facility in accordance with Section X Standard Specifications: Section 01 51 05 – Temporary Utilities and Controls.
   B. Personnel entering the Exclusion Zone (EZ) or Contamination Reduction Zone (CRZ) or otherwise exposed to hazardous chemical vapors, gases, liquids, or contaminated solids must decontaminate themselves and their equipment prior to exiting the CRZ and entering the support zone. Consult Chapter 10.0 of NIOSH 85-115 when preparing decontamination procedures. Submit a detailed discussion of personal hygiene and decontamination facilities and procedures to be followed by site workers as part of the Site Safety and Health Plan and Work Plan. Train employees in the procedures and enforce the procedures throughout site operations.

3.2 DECONTAMINATION PAD
   A. Construct decontamination pad as shown on the Contract Drawings in locations approved by the ENGINEER.
   B. Construct to facilitate the cleaning of equipment and trucks prior to leaving the Site. Provide adequate dimensions to contain wash water and debris from the largest sized vehicles and equipment to be used for the work. Construct the pad to capture decontamination water, including overspray, and allow for collection and removal of the decontamination water using sumps, dikes and ditches as required.
   C. Perimeter is to be curbed and equipped with splash guards.
   D. The decontamination pad is to be located at the exit of each active work area or the Exclusion Zone such that previously non-contaminated areas are not contaminated during remedial activities. This may require the construction and use of multiple decontamination pads.
   E. Locate as close to the active work as possible to prevent tracking of contaminated material beyond the contaminated areas of the site.
   F. Decontamination pad shall consist of an aggregate (sand and crushed stone) working base, impervious geomembrane liner, nonwoven geotextile, and a collection sump and pumping system as shown on the Contract Drawings.  
      1. Rocks larger than 0.5 inch diameter, and any other material which could damage the geomembrane, shall be removed from the surface to be covered with the geomembrane. Construction equipment tire or track deformations beneath the geomembrane shall not be greater than 1.0 inch depth. Each day during placement of geomembrane, the Quality Control (QC) Officer and installer shall inspect the surface on which geomembrane is to be placed and certify in writing that the surface is acceptable. Repairs to the subgrade
and/or geomembrane shall be performed at no additional cost to the DEPARTMENT. A
40-mil HDPE impervious liner shall be placed over the sand base of the decontamination
pad and berms as indicated on the Contract Drawings.

2. The procedures and equipment used to install the geomembrane shall not elongate,
wrinkle, scratch, or otherwise damage the geomembrane, other geosynthetic layers, or the
underlying subgrade. Geomembrane damaged during installation shall be replaced or
repaired. Only geomembrane panels that can be anchored and seamed together the same
day shall be deployed. The CONTRACTOR shall use large panels prepared by the
manufacturer to provide area coverage and reduce field seaming to the maximum extent
practical. Adequate ballast (i.e., sandbags) shall be placed on the geomembrane, without
damaging the geomembrane, to prevent uplift by wind.

3. The methods used to deploy and backfill over the geomembrane shall minimize wrinkles
and tensile stresses in the geomembrane. The geomembrane shall have adequate slack to
prevent the creation of tensile stress.

4. The wrinkle height to width ratio for installed geomembrane shall not exceed 0.5. In
addition, geomembrane wrinkle height shall not exceed 6 inches. Wrinkles that do not
meet the above criteria shall be cut out and repaired in accordance with the installer's
approved QC manual.

5. The surface of underlying geomembrane shall be clean and clear of any debris prior to
installing geotextile. An anchor point shall be established in the highest elevation of the
area to be covered, from which the CONTRACTOR shall roll out the geotextile.

6. Geotextile shall be installed so that overlap in the panels follow the slope.
CONTRACTOR shall overlap geotextile sheets end to end and side to side by a minimum
of 12 inches.

7. The geotextile shall be installed so that it is in intimate contact with the underlying
geomembrane. The geotextile shall not bridge any low areas or voids in the subgrade.

8. Methods used to deploy the geotextile shall minimize wrinkles and tensile stress.

9. 12 inches of NYSDOT Underdrain Filter Material, Type 1 shall be placed over the
geotextile as specified in the Contract Drawings.

G. Collect and store decontamination fluids from the sump in a temporary water storage facility
adjacent to the decontamination pad.

H. Sumps, pumping facilities, and temporary storage facilities shall be adequate for anticipated use
and can contain a 25-year, 24-hour storm event runoff within the decontamination pad.

I. Temporary storage facilities may be mobile tankers or suitable fixed tanks. Fixed tanks shall be
located within secondary containment areas capable of containing 100 percent of the tank
capacity, or 110 percent of the largest tank where the secondary containment area holds more
than one tank. The secondary containment area shall be lined with a 40-mil impervious HDPE
membrane.

J. Remove the decontamination pad(s) following intrusive activities. Soil samples shall be taken
from under the pad following pad removal. Soil contaminated as a result of improper
decontamination pad construction, improper handling/maintenance, or negligence, shall be
excavated and disposed of offsite at an approved facility at the expense of the CONTRACTOR.

K. Construction water management and treatment shall occur as described in Section 02 72 00 –
Water Treatment.

L. Clean decontamination pad(s) periodically as required, including:
1. Before each transition of handling hazardous waste to non-hazardous waste.
2. When accumulated sediment reaches the storage capacity of the sump.
3. When accumulated sediment begins clogging and reducing the permeability of the crushed stone layer.

M. Handle decontamination wastewater, accumulated sediment, waste crushed stone, and other waste resulting from maintaining/operating the decontamination pad as specified in Section Off Site Transportation and Disposal.

3.3 EQUIPMENT AND MATERIAL DECONTAMINATION

A. All vehicles and equipment used in the EZ shall be decontaminated in the CRZ prior to leaving the site.

B. Wheels shall be cleaned to remove sediment prior to entrance onto public roads. When washing is required, it shall be done on the dewatering pad or a decontamination pad.

C. Materials potentially contaminated with site soils, such as Unacceptable Debris, which requires off-site disposal, shall be decontaminated in the CRZ on the Decontamination Pads prior to leaving the site. Handle and dispose of decontaminated Unacceptable Debris as Non-Hazardous Waste in accordance with Section XI Supplementary Specifications: Section 02 81 00 – Off Site Transportation and Disposal.

D. If Unacceptable Debris cannot feasibly be decontaminated, the CONTRACTOR shall submit request to the ENGINEER and the DEPARTMENT with justification of why the material could not be decontaminated. Upon approval by the ENGINEER and DEPARTMENT, the CONTRACTOR shall handle and dispose of this waste as Hazardous Waste in accordance with Section XI Supplementary Specifications: Section 02 81 00 – Off Site Transportation and Disposal.

3.4 PROCEDURES

A. Procedures for equipment decontamination must be developed and utilized to prevent the spread of contamination into the Support Zone (SZ) and offsite areas. These procedures must address disposal of contaminated products and spent materials used on the site, including containers, fluids, oils, etc. Assume any item taken into the EZ is to be contaminated and perform an inspection and decontaminate if necessary. Vehicles, equipment, and materials must be cleaned and decontaminated prior to leaving the site. Handle construction material in such a way as to minimize the potential for contaminants being spread and/or carried offsite. Prior to exiting the site, vehicles and equipment must be monitored to ensure the adequacy of decontamination.

B. Off-site decontamination of some materials may be required if frozen conditions are encountered. Owner may approve of off-site decontamination if frozen conditions are encountered, and Contractor submits decontamination plan and procedures for off-site decontamination.

END OF SECTION 02 80 01
PART 1 - GENERAL

1.1 SUMMARY

A. This section includes a description of requirements and responsibilities for the following activities and wastes:
   1. Off-site transportation and disposal of Hazardous Waste
   2. Off-site transportation and disposal of Non-Hazardous Waste
      a. Off-site transportation of potentially hazardous materials between Area 1, Area 2, and Area 3.

B. The CONTRACTOR shall be responsible for the supply, operation, preparation, maintenance, loading, weighing, placarding, and decontamination of transport vehicles/containers.

C. The CONTRACTOR shall properly transport and dispose of all items, which can be generally classified in the categories described above, and be removed from the Site, to appropriate disposal facilities. This includes existing wastes as well as the wastes generated by the CONTRACTOR during construction.

D. The CONTRACTOR shall prepare shipping and manifest documents including waste profiles, manifests, certificates of disposal, certificates of destruction, and bills of lading in addition to maintaining transportation records as required by regulatory agencies.

E. The CONTRACTOR shall be responsible and will be held accountable for assuring that all sampling, analysis, transportation, and disposal requirements of the identified Treatment, Storage and/or Disposal Facility (TSDF), Solid Waste Management Facility (SWMF), Publicly Owned Treatment Works (POTW), or reclamation/recycling/salvage facility, federal, state, and local governments are complied with and properly documented.

F. The CONTRACTOR shall be responsible for the protection of local roads used during transportation to disposal facilities.

G. Related Requirements:
   1. Section X Standard Specifications: Section 01 33 00 – Submittal Procedures
   2. Section XI Supplementary Specifications: Section 02 80 01 – Decontamination
   3. Section XI Supplementary Specifications: Section 31 11 00 – Clearing and Grubbing
   4. Section XI Supplementary Specifications: Section 31 23 16 – Excavation
   5. Section XI Supplementary Specifications: Section 31 32 00 – Sediment Processing

1.2 REFERENCE STANDARDS

A. Code of Federal Regulations (CFR)
2. 40 CFR 262: Standards Applicable to Generators of Hazardous Waste
3. 40 CFR 263: Standards Applicable to Transporters of Hazardous Waste
4. 40 CFR 268: Land Disposal Restrictions
5. 40 CFR 761.75: Chemical Waste Landfills
6. 49 CFR 171: General Information, Regulations, and Definitions
7. 49 CFR 172: Tables, Hazardous Material Communication Requirements, and Emergency Response Information Requirements
9. 49 CFR 174: Carriage by Rail
10. 49 CFR 177: Carriage by Public Highway

B. New York Codes, Rules, and Regulations (NYCRR)
1. 6 NYCRR 364: Waste Transportation Permits
2. 6 NYCRR 372: Hazardous Waste Manifest System and Related Standards for Generators, Transporters, and Facilities
3. 6 NYCRR 248: Use of Ultra Low Sulfur Diesel Fuel and Best Available Retrofit Technology for Heavy Duty Vehicles

1.3 SUBMITTALS

A. Transportation and Disposal Plan (as a component of the Work Plan). Description of planned means and methods for transporting and disposing of all waste materials removed from the Site or generated as a component of the Work. The description shall be a component of the Work Plan as required by Section X Standard Specifications: Section 01 33 00 – Submittal Procedures. Include the following:
1. Type and number of vehicles/containers used.
2. Locations of all identified TSDFs, SWMFs, POTWs, chemical waste landfills per 40 CFR 761.75, and/or reclamation/recycling/salvage facilities. Information submitted shall include:
   a. Name
   b. Owner
   c. Type of facility / permit information
   d. Contact person and phone number
   e. Location
   f. Hours of operation.
3. Letter of Commitment from each proposed TSDF, POTW, SWMF, or reclamation/recycling/salvage facility prior to shipping material. Each letter shall state:
   a. Facility-specific compliance with current and valid permits
   b. Copies of valid operating licenses and permits
   c. That the facility will accept the materials, contingent upon acceptance of waste profile, proposed for disposal at the facility
   d. Facility restrictions which may cause rejection of transported materials
   e. Additional sampling and analysis of materials including quantity of samples and required analytical methods required prior to delivery to the facility
   f. Restrictions, if any, on delivery schedule.
4. Transporter identification, status and copies of valid operating licenses and permits.
5. The proposed haul route over local roads to each of the identified facilities and times.
6. List any special restrictions along haul routes (e.g. bridges, etc.).
7. Contingency plans for spills during transportation.
9. Sample Bill of Lading and Uniform Hazardous Waste Manifest to be used for the project shall be submitted to the ENGINEER for approval.

B. Complete copies of waste profiles shall be submitted to the ENGINEER and DEPARTMENT. Submit at least 3 days prior to shipping of wastes off-site. (Informational Submittals)

C. The CONTRACTOR shall submit to the ENGINEER (Informational Submittals):
   1. Completed and signed Bill of Ladings and Manifests for all transported waste loads. Submit within 3 days of shipment.
   2. Certified weight slips from the receiving facility for each load transported to the disposal facility and disposed. Submit within 3 days of shipment.
   3. Weekly transportation report that includes the type of waste material, weight, volume, disposal/recycle location, date of shipment, date of receipt, and responsible transporter. Include materials transported between Areas 1, 2, and 3. Submit on the Monday for the preceding 7 days in which off-site transportation and disposal occurred.

1.4 DEFINITIONS

A. Acceptable Vegetative Debris:
   1. See Section XI Supplementary Specifications: Section 31 11 00 – Clearing and Grubbing.

B. Clearing Debris:
   1. See Section XI Supplementary Specifications: Section 31 11 00 – Clearing and Grubbing.

C. Debris:
   1. See Section XI Supplementary Specifications: Section 31 23 16 – Excavation.

D. Exclusion Zone:
   1. See Section XI Supplementary Specifications: Section 02 80 01 – Decontamination.

E. Generator:
   1. The Site is an abandoned hazardous waste Site and the actual generator of the waste is not participating in the remedial action. For the purpose of the project, the DEPARTMENT will assume the role of generator. The ENGINEER on behalf of the DEPARTMENT will sign all required documentation and recordkeeping.

F. Grubbing Debris:
   1. See Section XI Supplementary Specifications: Section 31 11 00 – Clearing and Grubbing.

G. Hazardous Waste
   1. See Section XI Supplementary Specifications: Section 02 80 01 – Decontamination.

H. Local Road:
   1. For the purpose of this specification, local roads shall mean those roads within the, Town and City of Lockport, Niagara County, New York.

I. Non-Hazardous Waste:
   1. See Section XI Supplementary Specifications: Section 02 80 01 – Decontamination.
J. OU-2 Sediment:
   1. See Section XI Supplementary Specifications: Section 31 23 16 – Excavation.

K. Transporter:
   1. A person or firm engaged in the off-site transportation of solid waste by air, rail, highway or water.

1.5 WASTE CONTAINERS
   A. Provide waste containers specific to the individual waste Categories as described in Section 1.1.

1.6 ENVIRONMENTAL REQUIREMENTS
   A. Do not spill, leak, or otherwise release material from transport vehicles and containers during loading and unloading operations or while in transit from the site to the TSDF and/or SWMF.
   B. Clean up any and all spills or leaks in transit on a daily basis. Costs for such cleanup shall be the responsibility of the CONTRACTOR.

PART 2 - PRODUCTS

2.1 Not Used.

PART 3 - EXECUTION

3.1 TRANSPORTATION OF WASTES
   A. This section applies to all wastes identified in Subpart 1.1.A.
   B. Transport all wastes specified or generated as a result of the Work. This includes materials generated by final site cleanup activities including the dismantling of the temporary facilities and controls.
   C. Comply with the New York State Diesel Emissions Reduction Act, Environmental Conservation Law 19-0323, and 6 NYCRR 248 when using heavy duty vehicles.
   D. Coordinate the number and schedule of vehicles required for off-site transportation of waste materials generated during the execution of the specified work.
   E. Inspect the transportation vehicles before and after loading to ensure compliance with all local, state, and federal regulations for the safe transport of wastes from the Site to the receiving facility. The CONTRACTOR shall provide the necessary labor and materials to ensure all trucks, containers, etc. are lined with plastic prior to filling, as required; foamed or stabilized with an agent, if necessary; and covered prior to departure.
F. Ensure that the transporters arriving at the site for loading do not cause undue congestion to local roads. Stage trucks either within the perimeter of the Site or at an off-site staging area approved by the ENGINEER. Transporters shall not be accepted at the site before 7:00 AM and after 5:00 PM.

G. Decontaminate loaded trucks as specified in Section XI Supplementary Specifications: Section 02 80 10 – Decontamination prior to transporting offsite.

H. Load trucks as required to meet the weight limitations for the local roads along the designated route.

I. Ensure that an overliner is placed over the materials to be transported and secured with an approved tarpaulin in a manner that prevents the loss of materials or fugitive dust emissions.

J. Transport OU-2 Sediment and other material which may result in loss of water in trucks with sealed tailgates designed to prevent leaks. Ensure OU-2 Sediment passes the Paint Filter test required by Section XI Supplementary Specifications: Section 31 32 00 – Sediment Processing prior to leaving the Exclusion Zone.

K. Proceed directly from the Site to the designated receiving facility identified by the CONTRACTOR in the Work Plan. Temporary staging or storage of material by the CONTRACTOR at intermediate locations other than those specified in the approved Work Plan between the site and the receiving facility is prohibited.

L. Travel from the Site along traffic routes established by the CONTRACTOR and documented in the Work Plan.

M. Originate, maintain, and provide the ENGINEER with a copy of each executed bill of lading and manifest for each load shipped to an off-site facility. In addition, provide the ENGINEER documentation and records verifying receipt of each truck load by the receiving facility. Such documentation shall indicate the actual certified weight of each load shipped and received.

N. Document each truck and approximate volume for materials transported between OU-2, OU-3, and OU-1.

3.2 RECORDKEEPING

A. This section applies to all wastes identified in Subpart 1.1A.

B. Document each waste load shipped to an off-site facility.
   1. Complete a bill of lading and manifest provided by the transporter or TSDF/SWMF for non-hazardous wastes. Other forms as approved by the ENGINEER may be used. The form shall generally include the following information:
      a. Unique identifying tracking number.
      b. Generator/generator representative contact information.
      c. Transporter contact information.
      d. TSDF or SWMF contact information.
      e. Date of shipment.
      f. Quantity of shipment.
      g. Signatures of generator/generator representative, transporter, and TSDF/SWMF.
2. Complete a Uniform Hazardous Waste Manifest for Hazardous Waste in accordance with applicable regulations.

C. Document each load transported between OU-2, OU-3, and OU-1.
   1. Include contents, material source area, truck identification, approximate volume, indicate if the truck is sealed or unsealed, date and time of departure and arrival, and destination area.

3.3 DISPOSAL OF WASTES

A. This section applies to all wastes identified in Subpart 1.1A.1 and 1.1A.2 (Hazardous Waste and Non-Hazardous Waste for off-site disposal).

B. Dispose of all wastes that are specified as a component of the Work or that are generated during the execution of the Work in conformance with all federal, state, and local regulations and requirements.

C. The ENGINEER/DEPARTMENT shall approve of all designated TSDFs/SWMFs prior to off-site transportation and disposal. The CONTRACTOR shall not change facilities without prior consent of the ENGINEER/DEPARTMENT.

D. Complete waste characterization testing and prepare waste profiles in accordance with the requirements of the TSDF/POTW.

E. Approved TSDFs, POTWs, and reclamation/recycling/salvage facilities shall be licensed to accept the wastes profiled/characterized by the CONTRACTOR.

F. Maintain waste on-site until approval of the waste profile has been granted by the TSDF/POTW.

G. Dispose non-hazardous, non-contaminated wastes at approved TSDFs including, as appropriate, state-licensed SWMFs including municipal solid waste landfills and construction and demolition debris landfills; waste tire disposal facilities; and/or POTWs.

H. Document each waste load shipped offsite per Subpart 3.2 of this Section.

3.4 EXAMINATION

A. This section applies to all wastes identified in Subpart 1.1.A.

B. Notify ENGINEER sufficiently in advance of intention to commence activities at the site that require attendance by ENGINEER as provided hereinafter.

C. Activities requiring attendance by ENGINEER include:
   1. Final securement of loaded materials prior to transport from site.
   2. Decontamination of transport vehicles/containers prior to leaving site.
3.5 WASTE PROFILING

A. This section applies to all wastes identified in Subpart 1.1.A.1 and 1.1.A.2 (Hazardous Waste and Non-Hazardous Waste for off-site disposal).

B. Waste profile sampling and analysis shall be conducted in accordance with the requirements of the disposal facility.

C. ENGINEER may perform supplementary sampling and/or analysis for waste profiling. Such sampling and/or analysis or failure to perform such sampling and/or analysis by ENGINEER shall not release or reduce CONTRACTOR’S obligation to perform work in accordance with the requirements of Contract Documents. CONTRACTOR shall not remove materials from site which have been sampled by ENGINEER and are awaiting analytical results. ENGINEER will provide copies of ENGINEER’s analytical results to CONTRACTOR upon request.

D. Submit to ENGINEER completed waste profile for each waste stream. Waste profile will be signed by ENGINEER or an authorized agent of the DEPARTMENT except for materials brought on site by CONTRACTOR.

E. Submit signed waste profiles to disposal/treatment facilities.

3.6 NOTIFICATION

A. This section applies to all wastes identified in Subpart 1.1.A.

B. Notify applicable federal, state, and local representatives, or authorities having jurisdiction over the route and mode of transport in advance of commencing waste transportation.

3.7 SEGREGATION OF MATERIALS

A. This section applies to all wastes identified in Subpart 1.1.A.1 and 1.1A.2 (Hazardous Waste and Non-Hazardous Waste for off-site disposal).

B. CONTRACTOR shall not segregate materials for disposal/treatment until waste profiles are approved and accepted by each TSDF and/or SWMF.

C. Segregate and prepare materials prior to loading for transportation and disposal/treatment in accordance with the delivery acceptance requirements of the transporter and TSDF/SWMF facilities.

END OF SECTION 02 81 00
PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the CONTRACTOR requirements for the installation, operation, and monitoring of the OU-1 Slope Inclinometers.

B. Excavation stability is the responsibility of the CONTRACTOR. Sequence and perform excavation necessary for Work in a manner to ensure geotechnical stability of the active and surrounding slopes.

C. Related Sections:
   1. Section XI Supplementary Specifications:
      a. Section 31 23 16 – Excavation

1.2 PERFORMANCE REQUIREMENTS

A. The CONTRACTOR shall be responsible for all aspects of verifying design parameters, designing, providing, installing, starting, operating, maintaining, protection, and performance of the OU-1 Slope Monitoring Inclinometers. The CONTRACTOR’s design and materials shall meet the requirements of this Section.

B. The CONTRACTOR’s design shall include the following:
   2. Installation of three ShapeArray™ SAAV500-001 Inclinometers manufactured by Measurand equipped with data loggers, telemetry systems, and power sources to allow for remote access to real-time data by the ENGINEER and DEPARTMENT. The Inclinometers shall be extended from top of existing slope to top of cap grades using ShapeArray™ SAAV Extend. The CONTRACTOR is responsible for operation and remote monitoring until Final Completion.
   3. Physical components of the Inclinometer system, including the data loggers, telemetry systems, power source, and associated accessories shall be left in place upon Final Completion. CONTRACTOR shall ensure that the telemetry and remote monitoring system can be transferred to the DEPARTMENT upon Final Completion.
   4. Inclinometers shall be installed in 1 inch PVC in grouted boreholes which extend into bedrock by a minimum of 5 feet. Borehole, grout, casing, and fittings shall be installed in accordance with Manufacturer’s instructions. Inclinometer locations are depicted in the Contract Drawings.
   5. Inclinometers shall be installed and fully operational (including remote monitoring capabilities) prior to performing any excavation activities on or near the OU-1 slope.
6. The CONTRACTOR’s geotechnical engineer shall select action thresholds and response procedures to be taken if the inclinometer indicates potential slope instability. The action thresholds and response procedures shall, at a minimum, include the following:
   a. Low Level Deformation. Response procedures include notification of the ENGINEER and DEPARTMENT and onsite inspection by CONTRACTOR’s geotechnical engineer.
   b. Medium Level Deformation. Response procedures include notification of the ENGINEER and DEPARTMENT and immediate (within 12 hours) onsite inspection by CONTRACTOR’s geotechnical engineer. CONTRACTOR’s geotechnical engineer shall consider implementing a change in CONTRACTOR operations or sequencing; or CONTRACTOR’s geotechnical engineer shall recommend a design change to the ENGINEER if deemed necessary to ensure slope stability.
   c. High Level Deformation. Response procedures include immediate Work stoppage on or near the OU-1 slope, evacuation of personnel and equipment away from the slope, notification of the ENGINEER and DEPARTMENT, and immediate onsite inspection (within 12 hours) by the CONTRACTOR’s geotechnical engineer. Work on or near the slope shall not proceed until after the inspection and approval from the CONTRACTOR’s geotechnical engineer and ENGINEER. CONTRACTOR’s geotechnical engineer shall consider implementing a change in CONTRACTOR operations or sequencing; or CONTRACTOR’s geotechnical engineer shall recommend a design change to the ENGINEER if deemed necessary to ensure slope stability.

C. In the event that the inclinometers are not operating properly, excavation activities shall be delayed until the system is fully operational. Delays shall be at the CONTRACTOR’s expense.

1.3 SUBMITTALS

A. Slope Monitoring Plan (as an appendix of the Work Plan)
   1. As required by Section X Standard Specifications: Section 01 33 00 – Submittal Procedures
   2. Prepare a Slope Monitoring Plan to include as a standalone appendix of the Work Plan. The Slope Monitoring Plan shall be prepared and certified by a CONTRACTOR hired geotechnical professional engineer licensed in New York. The Slope Monitoring Plan shall include, at a minimum:
      a. Description of the drilling materials, equipment, and methods to be used for the boreholes
      b. Description of the materials, equipment, and methods to install casing, grout, fittings, and caps
      c. Description of the materials, equipment, and methods to install inclinometers, data loggers, telemetry systems, and power sources
      d. Description of the systems to allow remote access of the inclinometer data in real time
      e. Action thresholds and response procedures to be taken if the inclinometer indicate a potential slope failure
      f. Description of materials, equipment, and methods to extent inclinometers to reach top of cap grades
      g. Description of methods to enclose and protect equipment in waterproof lockable enclosures during interim and final conditions
B. Action Submittals. Submit at least 40 days prior to excavation activities on or near the OU-1 Slope.
   1. Product Data (inclinometers, inclinometer extensions, casing, grout, fittings, caps, data loggers, telemetry systems, power source, geomembrane penetration products, etc.)
   2. Shop Drawings. Indicate inclinometer installation details, including details for geomembrane penetrations, equipment used to secure equipment in waterproof enclosures, and any other details to depict proper design of the systems.

C. Informational Submittals. Submit at least 40 days prior to excavation activities on or near the OU-1 Slope.
   1. Manufacturer’s Instructions. Submit detailed instructions on installation and extension requirements for the inclinometers, including storage and handling procedures.
   2. Manufacturer’s Instructions. Procedures, set times, and temperature rates of the PVC primer and cement to be used for conduit installation.
   3. Copy of inclinometer warranty from the Manufacturer.

D. Closeout Submittals. Submit with Notification of Substantial Completion (as required by Section X Standard Specifications: Section 01 77 19 – Closeout Requirements)
   1. Clear instructions and login information to take over the remote monitoring account and any other information necessary to transfer responsibility of the Inclinometer System to the DEPARTMENT or other party.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Adhere to all the Manufacturer’s requirements for proper handling of the inclinometers.

B. Inclinometer shall be stored on its reel when not installed.

C. CONTRACTOR will be responsible for damage to the inclinometer instruments or installations until Final Completion.

PART 2 - PRODUCTS

2.1 EQUIPMENT AND MATERIALS

A. Inclinometers
   1. Inclinometers shall be ShapeArray™ SAAV500-001 manufactured by Measurand.
   2. Inclinometers shall monitor cumulative and incremental horizontal deformation at 500 millimeter (mm) intervals at least three times daily.

B. Inclinometer Extensions
   1. To be used as fill progresses to extend the Inclinometers to the final capping grades and allow for continuous monitoring.
   2. Inclinometer extensions shall be ShapeArray™ SAAV Extend manufactured by Measurand and be fully compatible with the previously installed inclinometers, data loggers, and telemetry system.

C. Data Loggers and Telemetry System for Remote Monitoring
1. Data loggers shall be manufactured by Campbell Scientific that use CRBasic command language including CR300, CR800, CR1000, CR1000X, CR6, or CR3000.
2. Data loggers shall automate inclinometer monitoring and allow for remote monitoring via telemetry.
3. CONTRACTOR is responsible for telemetry system design and operation and shall ensure ENGINEER and DEPARTMENT can access real time data remotely.

D. Power Source
1. CONTRACTOR is responsible for powering the inclinometers, data loggers, and telemetry systems.

E. Inclinometer Casing
1. Inclinometer casing shall be 1 in. (27 mm) Schedule 40 PVC conduit and fittings as recommended by the Inclinometer Manufacturer.

F. Chain
1. Chain used to weight down conduit during installation shall be zinc plated steel chain with a diameter of 0.2 in. and weight of 0.4 lbs/ft.
2. Chain shall be sized at a ratio of 1.5:1 the length of casing.
3. Chain shall meet all requirements of the Inclinometer Manufacturer.

G. Conduit Fittings and Cap
1. Conduit fittings shall be Schedule 40 PVC.
2. Fittings for the casing cap shall meet the requirements of the SAA Install Kit as recommended by the Inclinometer Manufacturer.

H. Grout
1. Grout for the borehole shall consist of a mixture of Portland Cement, water, and bentonite powder at a ratio of 1:6.6:0.4 by weight.
2. Grout shall be mixed in accordance with the inclinometer Manufacturer’s recommendations.
3. Bentonite pellets are not permitted.

PART 3 - EXECUTION

3.1 BOREHOLE AND CASING

A. Adhere to all Manufacturer requirements for borehole and casing installation.

B. Borehole shall have a minimum diameter of 6 inches to allow for installation of the casing.

C. Borehole shall be drilled to allow the inclinometer instrument to be installed at least 5 feet into bedrock. Borehole must be overdrilled at least 2 feet beyond expected depth of conduit.

D. Assemble PVC conduit keeping the ends clean from dust, oil, and snow. Confirm no foreign objects are inside the PVC during assembly.

E. Use PVC primer and cement to assemble the conduit. Adhere to PVC primer and cement set times and temperature ratings established by the Manufacturer.
F. Tape PVC conduit joins after gluing.

G. Install end cap on the bottom-most piece of PVC conduit before inserting it into the borehole. Lower the first piece into the borehole and glue and tape each subsequent piece with a coupler. When the desired depth of conduit has been reached, glue the bottom piece of the ShapeArray stack assembly to the top of the conduit.

H. Maintain a minimum stickup of 4 feet.

I. Use a hanging fixture to keep the conduit off the bottom of the borehole. Do not rest the conduit on the bottom of the borehole in order to avoid sinuating the conduit.

J. Use a chain or other approved method to apply a downward force on the conduit to counteract buoyancy forces during grouting.

K. Grout the borehole use the grout mixture recommended by the inclinometer Manufacturer and specified in this Section. Sand backfill is not permitted. Mix the cement and water first, then bentonite powder. Mix until the grout resembles a heavy cream.

L. Top off grout 24 hours following initial grouting.

M. Smooth the edges of PVC over which the inclinometer will be installed to prevent abrasion.

3.2 INCLINOMETER INSTALLATION

A. Adhere to all Manufacturer requirements for inclinometer installation.

B. Set the ShapeArray™ reel on a reel stand such that it will unroll from the top. The reel stand shall be set close to the borehole to avoid unsupported segments. The center of the reel shall site between 1 meter and 1.5 meters from the center of the borehole.

C. Slowly guide the inclinometer into the casing. Avoid jerking the instrument.

D. Once the instrument is installed, mark the position of the instrument and pump the instrument into the borehole to compress the instrument further into the casing until the instrument ceases to settle any further.

E. Use the SAAV Installation Verification tool to confirm proper installation. Reinstall the instrument if necessary.

F. Find and set the Azimuth Offset in accordance with Manufacturer’s Instructions.

G. Utilize the SAA Install Kit or approved equals to complete installation of the instrument.

3.3 DATA LOGGERS, TELEMETRY, AND POWER SYSTEMS

A. Install data loggers, telemetry equipment, and power source equipment in accordance with Manufacturer’s Instructions.
B. Setup systems to allow remote access to instrument data by the ENGINEER and DEPARTMENT.

3.4 PROTECTION OF INCLINOMETERS AND SYSTEMS

A. Protect inclinometers, casing, communication cables, data loggers, telemetry systems, and power sources throughout Work.

B. Replace equipment immediately if damaged.

C. Coordinate Work including filling near inclinometers to ensure continued operation and protection.

3.5 INCLINOMETER EXTENTION FOR FILL AND CONTAINMENT CELL CAPPING

A. Extend the casing and inclinometer to the elevation necessary for the Containment Cell cap installation. Calculate the casing and instrument lengths to ensure a minimum stickup of 4 feet over the top of cap grades. Account for appropriate compression of instrument length.

B. Install the SAAV Extend and casing extension in accordance with Manufacturer’s Instructions.

C. Upon Containment Cell capping, install pipe penetrations for the casing through the Geosynthetic Clay Liner, Geomembrane, and Geocomposite in accordance with Section XI Supplementary Specifications: Sections 31 05 20 – Geosynthetic Clay Liner, 31 05 21 – Geomembrane Barrier, and 31 05 22 – Geocomposites.

D. Confirm proper operation of inclinometer and remote monitoring ability.

E. Install all equipment in waterproof secured metal locked boxes to prevent tampering.

END OF SECTION 13 50 00
PART 1 GENERAL

1.1 SUMMARY

A. Section includes the following requirements related to the Area 1 Site Access Road construction:
   1. Excavation Requirements
   2. Rock Excavation
   3. Stockpiling Materials
   4. Filling Requirements
   5. Pile Installation
   6. Compaction
   7. Field Quality Control
   8. Site Grading

B. CONTRACTOR shall engage an independent testing agency to perform vibration monitoring at the nearest off-site building during pile installation and rock removal activities.

C. CONTRACTOR shall engage a Professional Geotechnical or Geological Engineer, experienced in rock slope stability, to serve as the Inspecting Engineer. The Inspecting Engineer shall be responsible for the inspection and certification that the rock face and slope above the Area 1 Site Access Road will remain stable for the duration of the construction project. The Inspecting Engineer shall be licensed in the State of New York.

1.2 REFERENCES

A. American Association of State Highway and Transportation Officials:
   1. T 99, Standard Method of Test for Moisture-Density Relations of Soils Using a 2.5-kg (5.5-lb) Rammer and a 305-mm (12-in.) Drop.

B. ASTM International:
   2. ASTM D698 - Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft³ (600 kN-m/m³).
   3. ASTM D2487 - Standard Classification of Soils for Engineering Purposes (Unified Soil Classification System).
   4. ASTM D1556 - Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method.
   5. ASTM D6938 - Standard Test Method for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth).

C. New York State Department of Transportation (NYSDOT)
1.3 SUBMITTALS

A. Section X, Specification Section 01 33 00 – Submittal Procedures.

B. Action Submittals.
   1. Geotechnical Testing: the CONTRACTOR shall submit results of geotechnical testing.
   2. Details of piles, pile hammers (including hammer cushion) and installation procedures proposed by the CONTRACTOR.
   3. A pile numbering plan for use by the CONTRACTOR and ENGINEER for identifying piles.
   4. Schedule for installation of piling, indicating the number of pile driving rigs and working hours proposed for pile installation.
   5. Shop Drawings: Show fabrication and installation details for piles, including details of driving points, if used, and splices.

C. Informational Submittals.
   1. Materials source (On-site processed material, NYSDOT approved source, or NYSDEC mining permit)
   2. Documentation that utilities were contacted prior to construction activities.
   3. Certified copies of mill test reports covering the physical and chemical tests on the H piles, splices and points, if used.
   4. Welder(s) certificates.
   5. Signed and sealed pile welding inspection reports.
   6. Vibration monitoring reports.

1.4 QUALITY ASSURANCE

A. Pre-Construction Material Testing
   1. Perform testing by the CONTRACTOR's validated testing facility. Submit qualifications of the CONTRACTOR’s validated testing facilities. Do not permit work requiring testing until the DEPARTMENT has approved the selected testing facility. The DEPARTMENT reserves the right to request additional tests, and more frequent testing by the CONTRACTOR when there is a change (i.e., source or physical properties) in the material or when the materials do not comply with these Specifications at no additional cost to the DEPARTMENT.
   2. Submit results of the pre-construction testing of all materials to the ENGINEER and DEPARTMENT at least 5 days prior to delivery of materials to site.
   3. Aggregates:
      a. The CONTRACTOR shall conduct a minimum of one grain size test (ASTM D6913/D6913M) on a representative sample of each source of the Modified Subbase, Type 3 material.
      b. The CONTRACTOR, or the CONTRACTOR’s material supplier, shall prepare a stockpile of not less than 40 cubic yards of Fine Stone Fill and shall request an inspection of the stockpile by the ENGINEER for engineering approval. The ENGINEER shall visually inspect the stockpiles and provide written documentation of approval or disapproval of the material prior to the planned use of the material.
   4. Topsoil:
      a. The CONTRACTOR shall conduct a minimum of one grain size test (ASTM D6913/D6913M), one Atterberg limits determination (ASTM 4318), one soil
classification (ASTM D2487), and analytical testing in accordance with NYSDEC DER-10 5.4(e) on a representative sample of each source material.

b. Analyze topsoil for percentage of nitrogen, phosphorus, potash, soluble salt, organic matter (loss by ignition), and pH value. One test per source of topsoil is required.

5. Piles
   a. Installer Qualifications: All pile installation work performed under this Section shall be performed by a specialty contractor having at least five (5) years of experience in the installation of pile foundations and/or solider piles for shoring.

1.5 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Excavated Material
   1. Excavated materials that are to be reused shall be stored in locations which will not interfere with construction operations or local traffic.
   2. Unsuitable and surplus excavated material and debris shall be disposed of by the CONTRACTOR at his own expense outside the limits of the project site unless otherwise negotiated with the DEPARTMENT. Disposal shall be in accordance with the requirements of the DEPARTMENT.

B. Slope Stabilization and Access Road Construction Materials
   1. Geogrid shall be stored, per the manufacturer’s recommendations within an approved staging area.
   2. Gravel Subbase and Fine Stone Fill for the access roadbed and stormwater swale shall be stockpiled within a DEPARTMENT approved staging areas, or shall be delivered to the site, as needed.
   3. H-piles and splices shall be stored within an approved staging area and shall be protected from damage by equipment or other materials.
   4. The Contractor shall handle, transport, and store piles to prevent physical damage. Any materials ordered or delivered to the project site prior to verification of the assumed pile length, will be at the Contractor's risk.
   5. After pile lengths have been verified by the Contractor, through the installation of test drive piles (see Paragraph 3.7, A, 10), Contractor shall deliver materials to the project site in such quantities and at such times as to assure the continuity of pile driving operations in conformance with the project schedule.

1.6 DEFINITIONS

A. The term "earth excavation" as herein defined shall be construed to mean all classes of material, wet or dry, and shall include so-called muck, hardpan, soft shale or slate, loose disintegrated or decomposed ledge rock, old macadam, topsoil, sod, masonry, and boulders up to ½ cubic yard in volume, all of which can be readily removed with a pick, trenching machine or backhoe equipment.

B. Bedrock shall be defined as stone or hard bedrock in original ledge and boulders over 2.0 cubic yards in volume, that cannot be broken or removed by mechanical equipment such as hydraulic splitters, excavators, or heavy-duty ripping equipment, without the use of explosives or systematic drilling. The equipment must have at least as much power as a Komatsu PC200 track mounted hydraulic excavator with a 42-inch tight tip radius rock bucket, rated at not less than 140 net horsepower, with a bucket digging force of not less than 30,000 lbs and an arm crowd force of not less than 20,000 lbs determined according to ISO 9249 and ISO 6015.
C. Partially weathered rock shall be defined as soil that maintains the apparent structure of bedrock, but can be excavated without use of the methods defined in paragraph B, above.

D. Scaling: the removal of loose rock fragments or blocks of bedrock on a rock face or slope that might pose a risk of falling and cause injury to workers or damage to equipment.

1.7 SITE CONDITIONS

A. Protection of Property

1. Necessary arrangements shall be made by the CONTRACTOR with all persons, firms and corporations owning or using any property affected by the construction included under this Contract to maintain and protect such facilities during construction. The cost of any such protection shall be paid by the CONTRACTOR.

2. Excavated materials that are not stockpiled for backfill or beneficial reuse for future environmental remediation shall be immediately removed from the site. The CONTRACTOR shall avoid depositing excavated material on pavements, sidewalks or grass plots, except with written authorization, and then only when adequate temporary provisions have been made for passage and protection of pedestrians and vehicles.

3. The CONTRACTOR shall shore up or otherwise protect all fences, buildings, walls, walks, curbs or other property adjacent to any excavation that might be disturbed during the progress of the work. The CONTRACTOR shall be liable for any damage that may result to neighboring property from excavation, backfill or grading operations.

B. Excavation Conditions

1. The subsurface conditions at the site generally consist of native soils, partially weathered rock, and bedrock.

   a. Native Soils: Material is predominantly glacial till with a wide range of particle sizes ranging from clay to boulders. Material is typically classified as clay & silt, or silty gravel. Native soils were encountered immediately below the ground surface and range in depth from 4 feet to 30 feet. This material can range from medium dense to very dense. Native soil layers are shallowest along the top of the gorge (near the expected bedrock zone, shown on the Access Road Plan, Area 1 Upstream - Sheet 7 of 45) and deeper along the access road.

   b. Partially Weathered Rock: Material appears to largely consist of decomposed bedrock. The material typically breaks into coarse to fine gravel, coarse to fine sand, and silt, when sampled or excavated. The partially weathered rock was encountered as shallow as approximately 20 feet near the bottom of the access road and as deep as 30 feet near the corner of the access road.

   c. Bedrock: Material consists of dolomite (dolostone), limestone and shale formations. The bedrock has estimated unconfined compressive strengths (UCS) that range from as low as approximately 1,000 psi, to as high as 12,300 psi. The depth to the bedrock varies from approximately 4 feet at the top of the gorge, to 40 feet near the curve in the access road.

2. Slope Stability

   a. Engineering analyses suggest that the access road might not be stable under traffic loads that impart a ground pressure greater than 1,000 psf (approximately 6.9 psi), without the H-Pile Slope Reinforcement. It should be noted that lighter loads might also lead to local slope stability failures along the downhill side of the roadway. Subsequently, the ENGINEER recommends that the CONTRACTOR restrict all
traffic along the Access Road, until the H-Pile Slope Reinforcement has been installed, to promote worker safety.

b. Engineering analyses also suggest that the soil slope uphill of the access road is marginally stable, as it currently exists. Subsequently, the CONTRACTOR is advised that widening the Access Road prior to grading the slope above the roadway might lead to local slope failures that could be a safety hazard.

C. Groundwater: Groundwater is not expected to be encountered during excavation activities associated with preparation of the access road. However, some perched water might be encountered during excavation for re-grading the slope. The contractor shall be prepared to collect and/or divert any perched groundwater, or surface water that may enter excavations, as needed.

PART 2 PRODUCTS

2.1 EQUIPMENT

A. The selection of excavation, pile driving, backfill, and compaction equipment is the CONTRACTOR's responsibility, but shall be subject to the approval of the ENGINEER.

B. Rock Excavation Equipment:
1. A heavy ripper attached to a large excavator is anticipated to be sufficient for partially weathered rock and bedrock excavation. A heavy (20 ton or larger) excavator may also be used to perform limited grading of highly fractured or weak bedrock and to scale loose fragments from bedrock faces.
2. A hoe-ram might be required to excavate some of the harder rock fragments, such as the dolomite encountered near the top of the gorge.
3. Blasting shall not be permitted.

C. Pile Driving Equipment:
1. Standard pile driving equipment, such as an excavator-mounted or crane mounted vibratory, or percussion hammer (using hydraulic, air, or diesel power) shall be used to drive the piles to refusal.
2. Vibratory hammers shall have a rated driving force of 30 tons, or greater.
3. Percussion pile hammers shall have a free hanging weight of at least 10 tons and be capable of imparting a minimum of 30,000 ft-lb of energy to the pile.
4. The hammer shall be in good operating condition at all times during driving.
5. Any hammer not operating in accordance with the manufacturer's specifications shall be deemed unsatisfactory and shall be removed from the site.
6. For percussion hammers, the hammer cushion shall consist of aluminum and micarta or other appropriate material proposed by the CONTRACTOR and approved by the ENGINEER. The use of a hammer cushion consisting of wood chips, small wood blocks, wood shavings, wire rope, or other materials with high elastic properties is unsatisfactory.

D. Compaction Equipment:
1. Generally, standard smooth drum, pneumatic tired static or vibratory rollers shall be used to compact aggregate material. Rollers shall have a minimum weight of 10 tons.
2. In all cases, loads shall be adjusted to give the most suitable results for the material being compacted. For heavier, or more efficient types of approved compaction equipment, the minimum number of passes required on all portions of each successive layer shall be determined by the ENGINEER after appropriate field tests to evaluate the efficiency of the equipment have been made. However, layer thicknesses shall not, under any circumstances, exceed those specified.

2.2 MATERIALS

A. H-Pile
1. H-piles shall consist of HP8X36 (Grade 50) piles, or an alternative, which may be HP10X57 (Grade 36) or HP12X53 (Grade 36) piles. Larger size and higher-grade piles may also be approved by the ENGINEER.
2. H-Pile Materials. H-Piles shall be rolled HP sections of standard dimensions. Piles may be new or used, provided that the ENGINEER inspects and approves all used piles prior to installation. Used piles shall be rejected if there is visible evidence of damage, such as bends, dents, or cuts. Previously spliced or welded used piles shall not be approved.
3. Fabrication:
   a. Single-length piles are preferred; however, site conditions may require that short lengths of pile be spliced.
   b. Fabricate and assemble piles in the shop to greatest extent possible.
   c. Pile-Length Markings: Mark each pile with horizontal lines at 12-inch intervals; label the distance from pile tip at 60-inch intervals. Maintain markings on piles until driven. When driving approaches refusal, as determined by the ENGINEER, mark pile at 1-inch intervals so that refusal can be accurately verified.
   d. Fabricate full-length piles by splicing lengths of H pile together. Accurately mill meeting ends of piles and bevel for welding. Maintain axial alignment of pile lengths.
      1) Splice Units: Notch web of pile, fit splice unit into position, and weld according to manufacturer's written instructions and AWS D1.1/D1.1M for procedures, appearance and quality of welds, and methods used in correcting welding work.
      2) Splice piles during field installation (See paragraph 3.7, A, 6).
   e. If used, fit and weld driving points to tip of pile according to manufacturer's written instructions and AWS D1.1/D1.1M for procedures, appearance and quality of welds, and methods used in correcting welding work.

B. Geogrid
1. Geogrid shall consist of Tensar BX1200 biaxial geogrid, or an approved equal. Equals shall be approved by the ENGINEER based upon the criteria given within the notes of Detail 6, Sheet 8 of 50, of the Contract Drawings.

C. Access Road Pavement
   The Access Road Pavement material shall consist of a modified version of NYSDOT Subbase Aggregate, Type 3. The material may consist of imported material, or aggregate processed from rock cut from elsewhere on the project site. The modification shall be a more-leniient specification for the percent fines within the aggregate, as indicated in the notes of Detail 6 on Sheet 8 of 50, of the Contract Drawings.
D. Stormwater Channel Material
   1. The material used to construct the stormwater channel, along the uphill side of the Access Road, shall meet the general requirements presented in the NYSDOT specification for Stone Filling, Fine (Item No 733-21) and as the gradation shown in the table below. The material may consist of imported material, or aggregate processed from rock cut from elsewhere on the project site.

<table>
<thead>
<tr>
<th>Stone Size</th>
<th>Percent of Total by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smaller than 8 inch</td>
<td>90 – 100</td>
</tr>
<tr>
<td>Larger than 3 inch</td>
<td>50 – 100</td>
</tr>
<tr>
<td>Smaller than No. 10 sieve</td>
<td>0 - 10</td>
</tr>
</tbody>
</table>

PART 3 EXECUTION

3.1 WORK AREAS
   A. Unless otherwise approved by the DEPARTMENT/ENGINEER, the CONTRACTOR shall stockpile soil, store equipment and materials, and establish temporary facilities only in the designated staging areas.

   B. Unless otherwise approved by the DEPARTMENT/ENGINEER, the CONTRACTOR shall keep all construction activities, including equipment transportation, within the Limits of Disturbance. Any damage to utilities, structures, or vegetation outside of the Limits of Disturbance will be corrected at the expense of the CONTRACTOR.

   C. The CONTRACTOR shall not enter any lawn areas of the property OWNER without the OWNER’s express permission. Subsequently, the CONTRACTOR should expect to perform all excavation and grading of the slope above the access road from below the gorge rim, unless the property OWNER provides permission to cross or work from their rear lawn.

3.2 EXAMINATION
   A. Verify that existing plant life designated to remain is tagged or identified.

   B. It shall be the CONTRACTOR's responsibility to investigate the actual conditions existing at the site. No extras will be allowed for any excavations, imported fill, disposal of excess excavated material or material unsuitable for grading, nor for any conditions which would have been foreseen by thorough examination of the site, the Contract Drawings or these Technical Specifications.

   C. Work shall be performed during dry weather periods, except as noted below. Performing work during wet conditions could make the existing soils unstable and fill soils slow to dry, and thus significantly retard the progress of grading and compaction activities. Rock excavation may be performed during wet weather periods.

   D. Verify the locations for pile installation.
3.3 PROTECTION

A. Prevent displacement or loose soil or rock from falling into excavation; maintain soil and/or rock stability.

B. Protect bottom of excavations from freezing.

C. Protect bench marks, survey control points, and existing structures from damage or displacement.

D. Protect trees, plant growth, and features designated to remain, as final landscaping.

E. Protect structures, utilities and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earth operations.

3.4 SEQUENCE

A. Construction of the Area 1 Site Access Road shall follow the sequence presented below. Variations from this sequence shall not be permitted without approval by the ENGINEER.

B. Construction Sequence:
   1. Clear and grub, but do not strip, existing roadway and the H-Pile Slope Reinforcement Installation Area along the downhill side of the access road. Install erosion and sediment control, as needed.
   2. Install H-Pile Slope Reinforcement.
      a. Install test drive piles (in accordance with paragraph 3.7, A, 10) along the length of the roadway to be reinforced.
      b. Production H-Piles shall be installed in a top-down sequence, starting at the highest elevation and working toward the lowest elevation along the roadway.
   3. Clear, grub, and strip the slope above the access road, in preparation of grading.
   4. Grade the Access Road and slope above the roadway.
   5. Install Roadbed and Stormwater Channel materials.

C. Notes:
   1. The CONTRACTOR may elect to follow the sequence presented above for the entire length of the Access Road, or may divide the Access Road construction area into segments, thus allowing later sequence items to be performed within one segment, while earlier sequence items are being performed within a lower segment. If the CONTRACTOR elects to divide the work into segments, the segmenting shall be performed in an order that spans from Old Upper Mountain Road to the bottom of the gorge.
   2. The top-down sequencing noted above (paragraph 3.4, B, 2, a) only applies to the installation of the Slope Reinforcement H-Piles. The CONTRACTOR may select the direction of sequencing for the other items listed above.

3.5 EXCAVATION PREPARATION

A. Clear the footprint of the area to be improved, as shown on Sheet 7 of 50, of the Contract Drawings, and strip topsoil as specified in Section XI Supplementary Specifications: Section 31 23 16 – Excavation. Trees within the LOD shall remain in place unless removal is
necessary for construction activities. Trees from the residence’s yard shall only be removed upon approval from the ENGINEER.

B. The CONTRACTOR shall furnish all labor, materials, tools, equipment, services and incidentals necessary to perform all earth and rock excavation, ground water control, fill placement, compacting and grading.

C. It shall be the CONTRACTOR’s responsibility, prior to performing excavations, to determine the presence and location of any underground utilities that may be affected by excavations. Any damage caused by the CONTRACTOR’s failure to make this verification and/or determination shall be repaired at no cost to the DEPARTMENT. When work is being conducted in areas, if any, where there are underground obstructions, the CONTRACTOR shall:
   1. Call Dig Safely New York at 811 and receive clearance not less than three working days before performing Work.
   2. Coordinate with the appropriate owner of each utility regarding the scope and schedule for utility relocation, in-place protection, or abandonment. Notify owners of pipes, cable, and/or other utilities 48 hours in advance of any excavation work. Underground utilities shall be located and exposed by the CONTRACTOR. Documentation shall be submitted to the DEPARTMENT/ENGINEER showing notification to owners of buried utilities.
   3. Preserve intact any existing underground pipes, culverts, or other utilities encountered during excavation operations. Hand excavation shall be required within one foot of any fiber optics, telecommunication, gas, or signal lines and within six inches of any sewer or water lines. If excavation beneath utility lines is required, the utility lines shall be supported as recommended by the owner of the utility, until proper backfill has been replaced beneath them. If any utilities or other structures are damaged or broken by the CONTRACTOR, they shall be replaced or repaired, at the CONTRACTOR’s expense, as soon as is practicable. Once replaced or repaired, the condition of utilities or structures damaged by the CONTRACTOR shall be at least equal to the condition they were in before the disturbance.

3.6 EXCAVATION SAFETY

A. The safety of all excavations shall be the sole responsibility of the CONTRACTOR. The CONTRACTOR shall implement procedures consistent with CFR 29 Part 1926, Subpart P and New York Department of Labor Industrial Code Rules, as necessary, to ensure safety of personnel in the vicinity of the excavations and to prevent damage to adjacent property, pavements, utilities, or structures.

B. Excavation limits are for the purpose of identifying areas that work is to be performed only, and do not necessarily represent safe limits. All excavations shall be free of overhangs, and the sidewalls shall be kept free of loose material. As a minimum, the CONTRACTOR shall slope all excavations to prevent these conditions.

C. Complete restoration of all obstructions moved or removed to accommodate construction equipment or to facilitate work, shall be required.

D. Should the CONTRACTOR encounter subsurface and/or latent conditions at the site materially differing from those described in these Contract Documents or indicated in the Basis of Design Report, the CONTRACTOR shall immediately give written notice to the
ENGINEER of such conditions, before they are disturbed. The ENGINEER shall promptly investigate the differing conditions and, if he finds that a change in design and/or specifications is necessary, shall make such changes, as deemed necessary to proceed with the planned work. Once the ENGINEER has made such changes, the CONTRACTOR shall implement them.

3.7 H-PILE SLOPE REINFORCEMENT

A. H-Pile Installation
   1. H-Piles shall be driven in two rows within the H-Pile Slope Reinforcement Installation Area, indicated on Sheet 7 of 50, of the Contract drawings. All piles shall be installed with the flanges parallel to the contours of the slope.
   2. The top row of H-Piles shall be installed at a seven (7) foot center-to-center spacing (plus or minus 0.5 foot) parallel to the contours of the slope, approximately one (1) foot from the downhill edge of the existing roadway (the crest of the slope below the existing roadway).
   3. The second row of H-Piles shall be installed on the downhill side of the first row, with their centers six (6) feet horizontally from centerline of the first row (plus or minus 0.5 foot). The second row shall be offset from the first row by 3.5 feet, as shown in Detail 7, Sheet 8 of 45, of the Contract Documents. At curves, the spacing between consecutive piles in the second row shall be increased or decreased so that the piles are radially aligned, as shown in the above-referenced detail.
   4. The CONTRACTOR shall provide a Surveyor licensed in the State of New York who shall establish pile locations in the assigned area of pile installation and be responsible for the correct location of each pile.
   5. The CONTRACTOR shall provide the ENGINEER with a survey prepared by his licensed Surveyor showing the planned locations and numbering of the piles. All pile locations shall be referenced to this drawing.
   6. If used, pile splices shall be welded such as to develop the full shear capacity of the pile section and no less than 95% the moment capacity of the pile in the weak direction. Mechanical splices which are not welded shall not be used. No more than two (2) splices (including factory splices) per pile are permitted.
   7. Pile Driving Records:
      a. In addition to records kept by the ENGINEER, the CONTRACTOR shall keep a separate record of each pile. This record shall give the date of driving, type and size of pile, length, tip and cut-off elevation, splices, pile hammer used, and other relevant information.
      b. Driving records for piles shall be submitted to the Owner on a weekly basis.
      c. The CONTRACTOR shall verify his driving records with the ENGINEER daily. Any disagreement with the ENGINEER’s records shall be submitted in writing to the DEPARTMENT within two working days after the work was performed.
   8. Drive all piles plumb and in true alignment. No piles are to be driven more than five (5) percent out of plumb.
   9. Pile penetration depths are expected to range from approximately 25 feet, near the bottom of the Access Road, to approximately 35 feet, mid-way down the Access Road. Penetration depths near the top of the road are expected to be between these depths; however, there is a possibility that the pile penetration depth may be shallower near the highest elevations of the H-Pile Slope Reinforcement Installation Areas.
10. The CONTRACTOR shall install a series of test drive piles to refine the expected depths of penetration prior to installation of production piles. The CONTRACTOR shall drive test piles at planned pile locations throughout the length of the H-Pile Slope Reinforcement Installation Areas at a spacing not exceeding one pile for every 50 feet along the length of the H-Pile Slope Reinforcement Installation Areas, but not less than six (6) test drive piles shall be driven. These shall be used to estimate target driving lengths of the piles. All test piles shall be driven to refusal.

11. All piles shall be driven to a minimum depth of 25 feet, or to refusal, whichever occurs later, unless the refusal depth(s) of the drive test piles indicate that the bedrock depth in some locations is shallower than 25 feet.

12. For this project, refusal shall be defined as follows:
   a. For an approved percussion hammer (as defined above), refusal shall be defined as a minimum of 25 blows per inch of pile penetration.
   b. For an approved vibratory hammer, refusal shall be defined as penetration rate less than 2 inches per minute, while (as defined above) imparting maximum driving force upon the pile.

13. Piles shall be installed in such a manner that the peak measured component vibration velocity shall be limited to 1.5 inches per second at the nearest off-site building structure to the site. The CONTRACTOR shall engage an independent testing agency to conduct measurements and report results to the ENGINEER. Should the vibration criteria be exceeded, the DEPARTMENT shall have the authority to direct the CONTRACTOR to immediately cease the operation and to modify his operations such that these criteria are not exceeded, at no expense to the DEPARTMENT.

14. Upon completion of installation of the H-Piles, the CONTRACTOR shall install three (3) rows of cables along the uphill line of H-Piles (the line of piles closest to the roadway). The cables and associated material shall be in accordance with Project Notes 2 and 3 on Sheet 8 of 50, of the Contract Drawings and shall meet the material properties for “Medium-Tension Cable Guide Rails” specified the NYSDOT requirements for Cable Guiderails, given in Section 710-22 of the NYSDOT Standard Specifications and the NYSDOT (US Customary) Standard Detail Sheets for Cable Guiderails, with the following exceptions:
   a. The CONTRACTOR may use the concrete anchor blocks that are detailed on the above-referenced drawings, or may use an alternative anchorage method. The CONTRACTOR shall provide documentation to the ENGINEER for approval, showing that the alternative can provide equivalent pull-out resistance. The CONTRACTOR shall not anchor the cable to the end slope reinforcement piles. However, additional anchorage piles may be installed, at no additional cost to the DEPARTMENT.

15. The cables shall be installed in accordance with the above-noted specifications and details.

16. The Contractor shall be responsible for all On-Site traffic safety. Subsequently, in addition to the above-specified cables, the contractor may employ other protective measures to prevent traffic from leaving the Access Road and to protect worker safety, upon approval of the ENGINEER.

3.8 EXCAVATION

A. The CONTRACTOR shall perform all excavation to the lines and grades indicated on the Contract Drawings, with the exception of when bedrock is encountered within the cut slope above the access road, and described herein. The work shall include but not be limited to excavation for slope and roadway grading, and pavement.
B. All excavations shall be properly sheeted, shored and braced as necessary to prevent shifting of materials; to prevent damage to structures, pavement and pipes; and to provide safe working conditions in accordance with the minimum requirements of OSHA and the State Department of Labor. The CONTRACTOR shall be responsible for the adequacy of all sheeting and bracing used and for all damage resulting from its failure or from placing, maintaining and removing it.

C. Existing Utilities:
   1. At locations where there are existing services, such as water mains, gas lines, electric conduits, etc., the CONTRACTOR shall uncover said pipes and structures a sufficient time in advance of the construction of the proposed work to definitely determine the line and elevation of the existing structures with reference to the new work so that, if required, change in line and/or grade can be made in the new work.

D. Excavation shall be made to such widths as will give suitable room for planned construction activities, and to find and protect existing utilities. The bottom of the excavations shall be rendered firm, dry and, in all respects, acceptable to the ENGINEER.

E. Excavation and dewatering shall be accomplished by methods that preserve the undisturbed state of subgrade soils. Subgrade soils that become soft, loose, "quick", or otherwise unsatisfactory for support of structures as a result of inadequate excavation, dewatering or other construction methods shall be removed and replaced by a suitable similar material, as approved by the ENGINEER, at the CONTRACTOR’s expense.

F. Excavations shall be completed to the depth and dimensions necessary for the proper installation of all work as detailed on the Contract Drawings.

G. Unless specifically directed by the ENGINEER, excavations shall not be made below the elevations indicated on the Contract Drawings. Where any unauthorized excavation is made below the grades indicated, the excavations shall be restored to the proper elevations with compacted, well graded granular material, at no additional expense to the DEPARTMENT. In any event, the operations necessary to correct an excess of excavation shall meet with the consent of the ENGINEER.

3.9 ROCK EXCAVATION

A. Rock shall be excavated in general so that the exposed rock face will be stable throughout the duration of the project, as defined in the Contract Documents. At a minimum, exposed rock faces shall be cut to an overall slope angle that is no steeper than 1H:4V. The rock face may be stair-stepped, with vertical sections no taller than three (3) feet, at the ENGINEER’s approval.

B. The Contractor shall remove rock by methods such as mechanical excavation, jack-hammering and hand scaling, to grade the rock face and to remove loose blocks.

C. Upon substantial completion of rock slope excavation, the CONTRACTOR shall notify the CONTRACTOR hired Inspecting Engineer that the rock slope has been prepared and is ready for inspection. The exposed rock face shall be inspected by the Inspecting Engineer. The Inspecting Engineer shall identify any areas that require additional excavation or scaling necessary to be deemed adequately stable for the duration of the planned construction project,
as described in the Contract Documents, and the CONTRACTOR shall perform such identified excavation and scaling. Upon completion of all excavation and scaling, the Inspecting Engineer shall provide written notification, to the DEPARTMENT, that it is the Inspecting Engineer’s conclusion that the rock face and slope above the Area 1 Site Access Road will be stable for the duration of the construction project.

D. Rock excavation shall be performed in such a manner that the peak measured component vibration velocity shall be limited to 1.5 inches per second at the nearest off-site building structure to the site. The CONTRACTOR shall engage an independent testing agency to conduct measurements and report results to the ENGINEER. Should the vibration criteria be exceeded, the DEPARTMENT shall have the authority to direct the CONTRACTOR to immediately cease the operation and to modify his operations such that these criteria are not exceeded, at no expense to the DEPARTMENT.

3.10 STOCKPILING

A. Stockpile materials within staging areas shown on the Contract Drawings or in areas approved by the DEPARTMENT.

B. Materials that will be reused for backfilling trenches may be placed along the trench, but a minimum of 2 feet away from the edge of the trench.

C. Separate differing materials with dividers or stockpile apart to prevent mixing.

D. Direct surface water away from stockpile site to prevent erosion or deterioration of materials.

3.11 PREPARATION FOR FILL

A. Verify fill subgrade has been contoured and compacted.

B. Repair or replace items indicated to remain if they are damaged by excavation.

C. Work shall be performed during dry weather periods. Performing work during wet conditions could make the soil slow to dry and thus significantly retard the progress of grading and compaction activities.

D. Compact subgrade to a firm, stable and non-yielding condition.

E. Cut out soft areas of subgrade not capable of compaction in place. Backfill with clean fill material and compact to a non-yielding condition.

F. When material varies from optimum moisture content, it shall be treated in the following manner. When a deficiency in moisture content exists, the material shall be watered and thoroughly mixed until optimum moisture content is attained. When an excess in moisture content exists, the material shall be worked and aerated until optimum moisture content is attained.

G. The finished subgrade surface shall be firm and uniform, true to grade and cross-section, and shall be approved by the ENGINEER before placing subsequent material thereon. Subgrade
that does not conform to the requirements as to grade, cross section, moisture content or density shall be reworked until such requirements are met.

3.12 ROADBED

A. Upon inspection and approval of the roadway subgrade, by the ENGINEER, place Geogrid over the subgrade, in accordance with the Manufacturer’s recommendations.

B. Following installation of the Geogrid, place the Access Road Pavement material (Modified Type 3 Subbase) to the line and grade shown on the Contract Drawings. Placement of the Access Road Pavement gravel shall begin as soon as practicable after the subgrade has been inspected and approved, and the Geogrid has been placed. Material for Access Road Pavement shall meet the requirements of Paragraph 2.2, C, 1, above.

C. Access Road Pavement material shall be placed in uniform horizontal layers and shall be compacted as the work progresses. The subbase gravel shall be placed in maximum lifts of 12 inches of loose material prior to compaction.

D. The Fine Stone Fill for the Stormwater swale shall be installed consecutively with the placement, grading and compaction of the Access Road Pavement. Fine Stone fill shall meet the requirements of Paragraph 2.2, D, 1, above.

3.13 COMPACTION OF MATERIALS

A. It shall be the CONTRACTOR's responsibility to properly place and compact all materials and to correct any deficiencies resulting from insufficient or improper compaction of such materials. The CONTRACTOR shall determine the type, size and weight of compactor best suited to the work at hand, select and control the lift (layer) thickness, exert proper control over the moisture content of the material, and other details necessary to obtain satisfactory results.

B. Compaction shall be continuous over the entire area, and compaction equipment shall make sufficient passes so that the specified minimum density has been achieved throughout the entire backfill.

C. Maintain optimum moisture content of Access Road Pavement materials to attain required compaction density. When material varies from optimum moisture content, it shall be treated in the following manner. When a deficiency in moisture content exists, the material shall be watered and thoroughly mixed until optimum moisture content is attained. When an excess in moisture content exists, the material shall be worked and aerated until optimum moisture content is attained.

D. Compaction shall be completed with a smooth drum, vibratory roller, having a static weight of 10 tons or greater, or other suitable types of compaction equipment.

E. Compaction Requirements:
   1. Access Road Pavement material shall be compacted to a minimum of 95% of the maximum dry density and with a moisture content that is within 2 percent above or below the optimum moisture content value (as determined by ASTM D698).
2. At minimum, one compaction test shall be performed per lift, for each 100 linear feet of Access Road.

3. Material that is shown to be less than the required maximum dry density shall be reworked by the CONTRACTOR and retested until the material meets the compaction requirement at no additional cost to the DEPARTMENT.

4. Fine Stone Fill used to construct the Stormwater Channel shall be compacted to a stable condition, by tamping with an excavator bucket or by a roller.

3.14 FIELD QUALITY CONTROL

A. Employ an independent testing laboratory to perform compaction testing.

B. CONTRACTOR’s independent testing laboratory shall test fill materials in accordance with the following:
   1. Material Test: ASTM D6913, D4318, and D698, 1 per 500 CY of on-site processed or imported material.
   2. Compaction Testing: ASTM D1556, 1 per lift, per 100 linear feet of roadway.

C. When tests indicate Work does not meet specified requirements, continue compactive effort and retest.

D. The CONTRACTOR shall keep records of all piles installed within the H-Pile Slope Reinforcement Installation Area. Provide records to ENGINEER within five (5) business days of pile installation. At a minimum the records shall include the following:
   1. Date and time when driven.
   2. Pile size
   3. Pile length, tip elevation, and cut-off elevation.
   4. Type, weight, of hammer, plus the stroke of the percussion hammer, (if used).
   5. Final penetration resistance.
   6. Pile splices.

E. The CONTRACTOR shall employ a Special Inspector, with a certified welding inspector, to verify full-penetration welds at each splice location. These certifications shall be provided to the ENGINEER within five (5) business days of completion of pile installation.

F. The CONTRACTOR shall employ a Surveyor, licensed in the State of New York, to monitor movement of the down-hill row of H-Piles throughout the duration of the project, or until fill within the Gorge reaches the downhill row of piles. The CONTRACTOR’s Surveyor shall perform monitoring in accordance with the following requirements:
   1. Upon completion of installation of the piles, survey points shall be installed on every third pile along the downhill row of piles, such that the location of the top of the pile may be identified to the nearest 0.01-foot vertically and horizontally.
   2. Once set, the location of the survey points shall be measured at least twice per day (once in the morning, before work begins, and once in the afternoon, after work has ceased).
   3. The results of the monitoring shall be reported to the ENGINEER no less than once per week, or whenever excessive movement is measured. For the purpose of this project, the following shall define excessive movement and shall trigger an alert to the CONTRACTOR, ENGINEER and DEPARTMENT:
      a. Horizontal and/or vertical movement in excess of 0.5 inch in less than a 24-hour period.
b. Total horizontal and/or vertical movement in excess of 3 inches. Note, the ENGINEER may change these movement limits once monitoring begins, depending upon the movements observed.

4. The monitoring may be done physically, or robotically.

G. The CONTRACTOR shall notify the ENGINEER when rock slope excavation and grading begin. The ENGINEER shall inspect the face of the cut rock slope, and identify locations that are over-steep, prone to toppling, plane or wedge failures, or that may otherwise require additional excavation to stabilize. The CONTRACTOR shall continue excavation in any area identified by the ENGINEER that require additional excavation, until the ENGINEER verifies that the slope is adequately stable.

3.15 SITE GRADING

A. The CONTRACTOR shall perform all grading work indicated on the Contract Drawings or specified. The surface area of the site, including all excavations, cuts, fills and embankments, shall be finished to the lines, grades and cross-sections shown on the Plans, and shall be cleaned of all loose material.

B. Grading in preparation for placing of topsoil shall be performed at all locations indicated on the Contract Drawings, to the lines and grades shown and as directed by the ENGINEER. During the course of grading, the subgrade shall be maintained in such condition that it will be well drained at all times.

C. Upon completion of Work within Area 1 OU-2 and once construction equipment is no longer required to travel down the Area 1 Site Access Road, remove the upper six (6) inches of the Access Road Pavement and replace with new Access Road Pavement Material in accordance with paragraphs 3.11, 3.12, 3.13, and 3.14 of this Section. If sequencing of the Work allows, removed Access Road Pavement may be disposed of in the Containment Cell in accordance with Section XI Supplementary Specifications: Section 31 32 00 – Sediment Processing.

D. Care shall be taken to avoid damage to adjacent vegetation and to prevent the formation of depressions that would serve as mosquito pools.

E. If at the time of grading it is not possible to place any material in its proper section of the permanent structure, it shall be stockpiled in approved areas for later use.

F. The slope grading along the uphill side of the Area 1 Site Access Road, shown on Sheet 7 of 50, of the Contract Drawings, is intended for excavation within soil. As can be seen from the drawing, there is an area north of the Access Road that has been Clouded and called out as an Expected Bedrock Zone. When bedrock is encountered within the cut slope, it shall not be cut to the line and grade shown on Drawing Sheet 7 of 45, but rather in accordance with the called-out notes and as described in Section 3.9, above. This is intended to prevent unnecessary excavation of stable bedrock.

G. Rough grading of soil shall be stopped six inches below final grade and leveled off, and topsoil shall be placed and finished to final grade.

H. The disturbed areas shall be finish graded. Any roots, rocks larger than 3 inches in size, or other undesirable material shall be removed from the surface immediately and the surface
shall be prepared for vegetative stabilization. All cut and fill slopes shall be uniformly dressed
to the slope, cross-section and alignment shown on the Contract Drawings or as directed by
the ENGINEER.

I. Perform grading operations as shown on the Contract Drawings so that the ground surface will
be well-drained at all times. Maintain benching and drainage ditches and keep them open and
free from soil, debris, and leaves until final acceptance of the Work. Finish all grading on
neat, regular lines conforming to the sections, lines, grades, and contours shown on the
Contract Drawings, or if not shown, in accordance with the criteria set forth herein. Perform
the grading work in proper sequence with all other associated operations.

J. The CONTRACTOR shall replace all surface material, and restore lawns, fences, structures
and all other items that were disturbed by the construction so that they shall be equal to the
original condition.

3.16 PLACING TOPSOIL

A. Topsoil shall be placed on all disturbed areas (except the roadway) prior to seeding and site
restoration activities. Topsoil shall meet the requirements of Section XI Supplementary
Specifications: Section 31 23 23 – Fill for Restoration.

B. On areas to receive topsoil, the compacted subgrade soil shall be scarified to a 2-inch depth for
bonding of topsoil with subsoil.

C. Topsoil shall be spread evenly to a minimum thickness of 6 inches and graded to the elevation
and slopes indicated on the Contract Drawings.

D. Topsoil shall not be spread when frozen or excessively wet or dry.

E. Compact using excavator or other equipment to a uniformly consistent moderate density.
Avoid a loose condition of topsoil and avoid over-compacting topsoil. Compaction testing is
not required.

F. Seed finished areas within 7 days in accordance with Section XI Supplementary
Specifications: Section 32 92 19 – Seeding to prevent erosion and dust. CONTRACTOR shall
restore any eroded areas to existing contours and elevations prior to seeding.

G. Place mulch and erosion control matting, as specified in Section XI Supplementary
Specifications: Section 32 92 19 – Seeding to prevent erosion and dust.

3.17 GRADING TOLERANCES

A. The surface elevation shall be: Plus or minus 0.2 feet.

B. The grading slope shall be: Plus or minus 0.5%.

C. Placed material not conforming to the specified tolerance limits shall be removed and replaced
as directed by the ENGINEER at no additional cost to the DEPARTMENT.
3.18 STOCKPILE CLEANUP

A. Remove stockpile, leave area in clean and neat condition. Grade site surface to prevent free standing surface water.

3.19 SPOILING

A. Spoil excess excavated material in locations approved by the DEPARTMENT.

B. Coordinate with the DEPARTMENT and ENGINEER for placement of spoils. CONTRACTOR shall stake perimeter of spoil sites for DEPARTMENT and ENGINEER approval prior to placing fill.

C. Spoil thickness shall be no greater than five (5) feet.

D. Prevent erosion and migration of spoiled material by use of best management practices.

E. Compact spoiled excess excavated materials in the same manner as Common Fill in accordance with Section XI Supplementary Specifications: Section 31 23 23 – Fill for Restoration.

3.20 FUGITIVE DUST CONTROL

A. CONTRACTOR shall implement fugitive dust control measures as necessary during all phases of the work.

B. CONTRACTOR shall apply water to suppress dust.

3.21 PROTECTION OF FINISHED WORK

A. CONTRACTOR shall properly grade area to prevent erosion.

B. Prohibit construction traffic over finished Backfill.

C. Reshape, grade and re-compact the Access Road Pavement gravel as necessary to allow for safe vehicular traffic. If it becomes apparent that vehicle traffic has damaged the Geogrid and/or subgrade, repair such damage by removing the gravel pavement from the area to a sufficient width to affect the repair. Remove any damaged Geogrid and disturbed subgrade, and backfill, as necessary, in accordance with the Sections above. Damaged Geogrid shall be replaced in kind, by overlapping the new Geogrid no less than 3 feet over the existing, undamaged Geogrid. Upon replacement of the Geogrid, replace the gravel Access Road Pavement in accordance with these Specifications.

D. Drainage of surface water shall be controlled to avoid damage to adjoining properties or to finished work on the site.

E. CONTRACTOR shall take appropriate measures to prevent erosion of freshly graded areas until such time as permanent drainage and erosion control features have been established.
F. CONTRACTOR shall seed disturbed areas that receive topsoil in accordance with Section XI Supplementary Specifications: Section 32 92 19 – Seeding. Seeding of critical slope areas shall be completed within 48 hours of final grading.

END OF SECTION
PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the CONTRACTOR requirements for the following items:

1. Installation of Stabilization Geotextile
2. Installation of Underdrain Geotextile
3. Installation of Gas Vent Geotextile
4. Other Geotextiles and Items Necessary for this Work.

B. The geotextiles work to be done and paid for shall not be limited to the extent described herein but shall include all incidental work necessary for the completion of the work. The CONTRACTOR’s Work Plan shall describe the selected means and methods for this work.

C. Related Sections:
   1. Section XI Supplementary Specifications:
      a. Section 01 57 13 – Temporary Erosion and Sedimentation Controls
      b. Section 02 72 00 – Water Treatment
      c. Section 02 80 01 – Decontamination
      d. Section 31 23 24 – Groundwater Underdrain
      e. Section 31 37 16 – Buttress
      f. Section 33 05 32 – Gas Vents

1.2 REFERENCES

A. New York State Department of Transportation
   1. NYSDOT Standard Specifications

1.3 DEFINITIONS

A. Unsatisfactory Soils:
   1. See Section 31 23 16 – Excavation.

1.4 SUBMITTALS

A. Action Submittals. Submit at least 20 days prior to Work associated with each geotextile product.
   1. Product Data. Submit manufacturer information including tensile strength, elongation, thickness, UV resistance, percentage of recycled components, and other material specifications.

B. Informational Submittals. Submit at least 20 days prior to Work associated with each geotextile product.
   1. Manufacturer’s Instructions. Submit detailed instructions on installation requirements, including storage and handling procedures.
   2. Manufacturer’s Certificate: Certify that products meet or exceed specified requirements.
   3. Copy of geotextile warranty, in effect for a period of twenty years, and a copy of the Installer’s warranty, in effect for a minimum period of one year following the completion of the project.

1.5 DELIVERY, STORAGE, AND HANDLING

A. The geotextile rolls and associated materials shall be shipped, stored and handled in accordance with manufacturer's recommendations and as specified herein, in such a manner as to ensure a sound, undamaged condition.

B. The fabric shall be stored with a cover so that it is protected from exposure to sunlight and shall be elevated from the ground (a minimum of 3-in) to protect the fabric from stones and other sharp objects. Rolls will be stored at the job site away from high traffic areas but sufficiently close to the active work area to minimize handling. The designated storage area should be flat, dry, and stable.

C. Geotextiles used for decontamination, staging, and dewatering pads shall be disposed of as Hazardous Waste in accordance with Section XI Supplementary Specifications: Section 02 81 00 – Offsite Transportation and Disposal.

D. Geotextile will be rejected if it is found to have defects, rips, holes, flaws, deterioration, or other damage.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Maximize the percentage of recycled materials comprising geotextiles while meeting the requirements outlined below for each specific geotextile.

B. Gas Vent Geotextile
   1. For use as separation between Sand Gas Vent Layer and the #1 Crushed Stone or Gravel of the gas vents.
   2. Gas Vent Geotextile shall meet the specifications of NYSDOT Standard Specifications 737.01C. Manufacturer and product shall appear on the NYSDOT Materials Approved List for 737-01 Geotextiles Category D (Drainage).
C. Stabilization Geotextile
   1. For use as protection, stabilization, and separation purposes in erosion and sediment controls, stormwater channel lining, temporary decontamination pad, temporary dewatering pad, and elsewhere.
   2. Stabilization Geotextile shall meet the specifications of NYSDOT Standard Specifications Table 737.01E. Manufacturer and product shall appear on the NYSDOT Materials Approved List for 737-01 Geotextiles Type ST.

D. Underdrain Geotextile
   1. For use for filtering and separation around the Groundwater Underdrain and Underdrain Stone within the Buttress.
   2. Underdrain Geotextile shall meet the specifications of NYSDOT Standard Specifications 737.0103 Monofilament – Woven, including the requirements of Table 737-01A for MF-W Geotextile Bedding, except as modified by the following requirements:
      a. Minimum permittivity shall be 0.28 sec-1.
   3. Manufacturer and product shall appear on the NYSDOT Materials Approved List for 737-0103 Geotextiles Type BD Bedding Class B.

PART 3 - EXECUTION

3.1 SUBGRADE PREPARATION
   A. Prior to placement of geotextiles, perform required excavation in accordance with Section XI Supplementary Specifications: Section 31 23 16 – Excavation.
   B. Prepare subgrade in accordance with Section XI Supplementary Specifications: Section 31 23 16 – Excavation.
   C. If Unsatisfactory Soils are present and upon approval by ENGINEER, remove and replace in accordance the paragraph titled “Specific Procedures for Excavation of Unsatisfactory Soils Beyond Other Excavation Limits” in Section XI Supplementary Specifications: Section 31 23 16 – Excavation.
   D. Subgrade surfaces shall be approved by ENGINEER prior to subsequent installation of geotextiles.
   E. Subgrade shall be free of sharp objects, boulders, stumps, and any materials that may contribute to fabric punctures, shearing, rupturing, or tearing.

3.2 GEOTEXTILE INSTALLATION
   A. When placing the geotextile, sections placed on slopes shall be placed so that the upper strip of geotextile overlaps the next lower strip by six inches.
   B. Lay geotextile panels in a manner free of tension, stress, folds, wrinkles, or creases. Adhere to manufacturer’s instructions for installation.
C. Place geotextile panels that follow the slope and in intimate contact with the underlying surface. Do not allow any bridging of low areas or voids.

D. Overlap adjacent panels by a minimum of 12 inches or as required by other Sections.

E. Follow manufacturer’s instruction for seaming.

3.3 INSTALLATION OF MATERIALS OVER INSTALLED GEOTEXTILES

A. Fill materials placed over previously installed geotextiles shall be installed with low ground pressure (LGP) equipment. Equipment shall only operate over fill materials, not directly on the geotextile. The equipment shall not exert ground pressures exceeding the following limits for various thicknesses of fill materials above the placed geotextile.

<table>
<thead>
<tr>
<th>Maximum Allowable Equipment Ground Pressure (psi)</th>
<th>Minimum Thickness of Amended Sediment Above Geotextile (inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>&lt;10</td>
<td>18</td>
</tr>
<tr>
<td>&lt;20</td>
<td>24</td>
</tr>
<tr>
<td>&gt;20</td>
<td>36</td>
</tr>
</tbody>
</table>

B. Vehicle speeds and turning shall be minimized to the satisfaction of the ENGINEER to avoid rutting, bouncing, and other stresses on underlying geotextiles. Spreading of fill materials shall be done so as to avoid stretching, wrinkling, or creasing of the underlying geotextiles.

C. During installation of fill materials above geotextiles, CONTRACTOR shall post one spotter at each piece of equipment spreading fill materials at all times of active material spreading. At a minimum, the spotter shall walk out wrinkles, inspect for unacceptable objects in the fill material, and ensure lifts of adequate depth.

3.4 PROTECTION OF INSTALLED WORK

A. CONTRACTOR shall be responsible for maintaining installed materials and preventing their damage.

B. In the event of damage to prior work, CONTRACTOR shall immediately make repairs and replacements necessary to the satisfaction of the DEPARTMENT, at no additional cost to the DEPARTMENT.

END OF SECTION 31 23 16
PART 1 - GENERAL

1.1 SUMMARY

A. Section includes the furnishing of all Geosynthetic Clay Liner materials, tools, supervision, equipment, and labor necessary for the Geosynthetic Clay Liner layer component of the Containment Cell and Lockport City Landfill Sediment Cell (LCLSC) Caps, including but not limited to: transportation, handling, Geosynthetic Clay Liner layout and placement, patching, seaming, removal of unsuitable materials, protection of installed materials, and all work incidental to the proper installation of the Geosynthetic Clay Liner Layer, as specified herein and as indicated on the Contract Drawings.

B. Related Requirements:

1. Section XI Supplementary Specifications
   a. Section 31 23 25 – Sand Gas Venting Layer
   b. Section 31 05 21 – Geomembrane Barrier

1.2 REFERENCE STANDARDS

A. ASTM International:
1. ASTM D4873 – Standard Guide for Identification, Storage, and Handling of Geosynthetic Rolls and Samples
5. ASTM D5993 – Standard Test Method for Measuring Mass per Unit Area of Geosynthetic Clay Liners
6. ASTM D6243 – Standard Test Method for Determining the Internal and Interface Shear Strength of Geosynthetic Clay Liner by Direct Shear Method
7. ASTM D6496 – Standard Test Method for Determining Average Bonding Peel Strength Between Top and Bottom Layers of Needle-Punched Geosynthetic Clay Liners

B. Geosynthetic Institute:

1.3 COORDINATION

A. Coordinate Work of this Section with Amended Fill placement, Sand Gas Venting Layer installation (Containment Cell), Geocomposite Installation (LCLSC), and Geomembrane installation.

1.4 SUBMITTALS

A. Action Submittals. Submit at least 40 days prior to Work associated with the geosynthetic clay liner.
   1. Material Source: Submit name of commercial material suppliers.
   2. Product Data (Geosynthetic Clay Liner)

B. Action Submittals. Submit at least 10 days prior to Work associated with the geosynthetic clay liner.
   1. Samples:
      a. Submit two samples of the Geosynthetic Clay Liner, full width by 48 inches long. DEPARTMENT may elect to conduct tests on sample at DEPARTMENT’s expense.

C. Informational Submittals. Submit at least 40 days prior to Work associated with the geosynthetic clay liner.
   1. Manufacturer’s Certificate: Certify that products meet or exceed specified requirements.
   2. Manufacturer Instructions: Submit detailed instructions on installation requirements, including storage and handling procedures.
   4. Manufacturer’s Qualification Statement.
   5. Installer’s Qualification Statement.

D. Informational Submittals. Submit within 24 hours of inspection execution or CONTRACTOR receipt of testing results.
   1. Source Quality-Control Submittals: Submit results of factory tests and inspections
   2. Field Quality-Control Submittals: Submit results of Contractor-furnished tests and inspections.

E. Informational Submittals. Submit each day prior to proceeding with GCL installation.
   1. Certification of Acceptance of Subgrade, certified prior to Work in that area.

F. Closeout Submittals.
   1. Installation Report including as-built panel layout drawings. Submit within 10 days of GCL installation completion.
   2. Record Drawing of GCL Installation. Submit within 20 days of GCL installation completion.
1.5 QUALITY ASSURANCE

A. The manufacturer of the Geosynthetic Clay Liner shall supply the CONTRACTOR with quality control certificates on each roll of Geosynthetic Clay Liner delivered to the site. The certificates shall be prepared by the Geosynthetic Clay Liner manufacturer and provide testing frequencies and test results as indicated in Part 2 of this Section. The certificates shall indicate manufacturer’s name, type of material, nominal thickness, roll width, and date of manufacture.

B. The Geosynthetic Clay Liner installer’s supervisor must be on-site and be in responsible charge throughout Geosynthetic Clay Liner installation.

C. The Geosynthetic Clay Liner installer must establish a Quality Control (QC) program overseen by a QC Representative. The QC Representative shall be responsible for the quality and integrity of the Geosynthetic Clay Liner installation, including all testing, inspections, and documentation.

1.6 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum five years' documented experience.

B. Installer: Company specializing in performing Work of this Section with minimum three years' documented experience and must have installed at least 10 projects involving a total of 5 million square feet of similar material within the last three years.

1. The Geosynthetic Clay Liner Installer’s Supervisor shall have experience overseeing installation of at least 2.5 million square feet of Geosynthetic Clay Liner.

2. The Geosynthetic Clay Liner’s Quality Control Representative shall have experience performing quality control duties on at least 2.5 million square feet of Geosynthetic Clay Liner installations.

1.7 PRECONSTRUCTION TESTING

A. CONTRACTOR shall retain the services of a Geosynthetics Accreditation Institute – Laboratory Accreditation Program (GAI-LAP) certified laboratory for performing pre-construction testing required in this Section.

B. Interface Shear Testing

1. CONTRACTOR shall provide lab results of interface shear tests (ASTM D6243) between the following interfaces a minimum of thirty (30) calendar days prior to the placement of the cap geosynthetics:

   a. Geosynthetic Clay Liner and each source of Sand for the Sand Gas Venting Layer
   b. Geosynthetic Clay Liner and Geomembrane
   c. Geosynthetic Clay Liner and Gas Venting Geocomposite

2. Interface shear testing shall be determined utilizing normal stresses of one hundred (100)/two hundred (200)/four hundred (400) pounds per square foot.

3. Displacement rates shall one (1) millimeter per minute.
4. Each shear test shall be performed using the same installation procedures and actual geosynthetics and soils to be used for the project in order to represent actual field conditions.
5. Test shall be run on fully saturated materials under drained conditions for twenty-four (24) hours and sheared to a minimum horizontal displacement of 3 inches.
6. A minimum of thirty (30) calendar days prior to the placement of the cap geosynthetics, the CONTRACTOR shall provide lab test results verifying the shear strength of the interfaces listed in Part 2 of this Section. Test results demonstrating adherence to minimum shear strength with differing friction angles and/or adhesion values may be submitted to the ENGINEER for approval.
7. Additional samples shall be collected and tested if the material does not meet the specifications of Part 2 of this Section, at no additional cost to the DEPARTMENT.

C. The DEPARTMENT and ENGINEER reserve the right to request additional tests, and more frequent testing, when there is a change in the material (source or physical properties) in the material being delivered to the Site or when materials do not comply with the requirement specified herein at no additional cost to the DEPARTMENT.

D. DEPARTMENT reserves the right to collect samples of the Geosynthetic Clay Liner for independent testing at the DEPARTMENT’s expense.

1.8 DELIVERY, STORAGE, AND HANDLING

A. Inspection: Accept materials on Site in manufacturer's original packaging and inspect for damage.

B. Comply with ASTM D4873.

C. Store materials according to manufacturer instructions.

D. Protection:
   1. Protect materials from moisture and dust by storing in clean, dry location remote from construction operations areas. Prevent GCL from wetting during delivery, storage, handling, and installation.
   2. Rolls should be covered in plastic until GCL is installed and should not be exposed to the atmosphere for an extended period of time.
   3. Provide additional protection according to manufacturer instructions.

PART 2 - PRODUCTS

2.1 GEOSYNTHETIC CLAY LINER

A. The Geosynthetic Clay Liner shall be comprised of a uniform layer of granular sodium bentonite encapsulated between two 6-ounce non-woven geotextiles, needle punched together.

B. The Geosynthetic Clay Liner shall be delivered in rolls and shall consist of GSE BentoLiner “NWL-35” as manufactured by GSE Environmental or approved equal.
C. All Geosynthetic Clay Liner rolls delivered to the site shall have the minimum physical properties specified below:

<table>
<thead>
<tr>
<th>Material</th>
<th>Property</th>
<th>Standard</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>GCL</td>
<td>Cab fabric (nonwoven) mass/unit area</td>
<td>ASTM 5261</td>
<td>5.9 oz/yd² (min.)</td>
</tr>
<tr>
<td></td>
<td>Carrier fabric (nonwoven) mass/unit area</td>
<td>ASTM 5261</td>
<td>5.9 oz/yd² (min.)</td>
</tr>
<tr>
<td></td>
<td>Bentonite Swell Index</td>
<td>ASTM D5890</td>
<td>24 ml/2g (min.)</td>
</tr>
<tr>
<td></td>
<td>Bentonite Fluid Loss</td>
<td>ASTM D5891</td>
<td>18 ml (max.)</td>
</tr>
<tr>
<td></td>
<td>Bentonite Mass/Area at 0% Moisture</td>
<td>ASTM D5993</td>
<td>0.75 lbs/ft² (min.)</td>
</tr>
<tr>
<td></td>
<td>GCL Moisture Content</td>
<td>ASTM D5993</td>
<td>35% (max.)</td>
</tr>
<tr>
<td></td>
<td>GCL Tensile Strength (MD)</td>
<td>ASTM D6768</td>
<td>23 lbs/in (min.)</td>
</tr>
<tr>
<td></td>
<td>GCL Peel Strength¹</td>
<td>ASTM D6496</td>
<td>2.1 lbs/in. (min.)</td>
</tr>
<tr>
<td></td>
<td>GCL Permeability²</td>
<td>ASTM D5887</td>
<td>5x10⁹ cm/sec (max.)</td>
</tr>
<tr>
<td></td>
<td>GCL Index Flux³</td>
<td>ASTM D5887</td>
<td>1x10⁻⁶ cm³/sec-cm²</td>
</tr>
<tr>
<td></td>
<td>GCL Hydrated Internal Shear Strength</td>
<td>ASTM D6243</td>
<td>500 psf (min.)</td>
</tr>
</tbody>
</table>

All GCL testing shall be in accordance with GRI-GCL 3, last revised 21 November 2019.

¹Modified to use a 4-inch wide grip. The maximum peak of five specimens averaged.
²Testing to be performed with water @ 5-10 psi maximum effective confining stress and 2 psi head.
³Typical peak value for specimen hydrated for 24 hours and sheared at a 200 psi normal stress.

D. As part of the pre-construction testing, the Geosynthetic Clay Liner interface shear strength shall have the following minimum friction angles:

2. Geosynthetic Clay Liner/Geomembrane Layer: ≥ 27 degrees (peak)

E. The granular bentonite or bentonite sealing compound used for seam, penetration sealing, and repairs shall be made from the same bentonite as used in the Geosynthetic Clay Liner and shall be as recommended by the Geosynthetic Clay Liner manufacturer.

PART 3 - EXECUTION

3.1 PREPARATION

A. Containment Cell: The CONTRACTOR shall prepare areas by installing the Sand Gas Venting Layer and Gas Vents in accordance with Section XI Supplementary Specifications: Section 31 23 25 – Sand Gas Venting Layer and Section 33 05 32 – Gas Vents.

B. LCLSC: The CONTRACTOR shall prepare areas by installing the Geocomposite gas venting layer and Gas Vents in accordance with Section XI Supplementary Specifications: Section 31 05 22 – Geocomposites and Section 33 05 32 – Gas Vents.
C. Before Geosynthetic Clay Liner installation begins, the CONTRACTOR shall:
   1. Prepare the surface on which the Geosynthetic Clay Liner is to be placed so that it is free of irregularities, erosion rills, protrusions, loose soil, and abrupt changes in grade. The CONTRACTOR shall regrade areas that are uneven or have ruts or voids greater than 2 inches.
   2. Remove standing water from areas where the Geosynthetic Clay Liner is to be placed.

D. The surface on which the Geosynthetic Clay Liner is to be placed shall not contain stones, rocks, sticks, roots, sharp objects, or debris of any kind that may damage the Geosynthetic Clay Liner.

E. The Geosynthetic Clay Liner shall not be placed on frozen ground.

F. The GCL shall not be installed during precipitation events or allowed to saturate when placed due to rainfall or stormwater runoff.

G. The installer and ENGINEER shall review the condition of the subgrade. The ENGINEER shall approve the subgrade prior to commencing work. Provide Subgrade Acceptance Form for certification by the ENGINEER and CONTRACTOR.

3.2 ANCHOR TRENCH CONSTRUCTION

A. Excavate the 24-inch by 24-inch anchor trench at the locations depicted in the Contract Drawings to secure the ends of the geosynthetics. The CONTRACTOR shall take precautions to minimize loose soil underlying the geosynthetics in the anchor trench. Only a sufficient amount of anchor trench shall be excavated for the day’s work. Do not excavate the low permeability soil overlying the Lockport City Landfill for installation of the anchor trench. Dimensions of the anchor trench for the LCLSC may be adjusted with the ENGINEER’s approval.

B. The bottom of the anchor trench shall be sloped towards low points where water may be removed. The location of the low points shall be subject to the approval of ENGINEER.

C. The alignment of the anchor trench shall be straight, except at directional changes shown in the Contract Drawings.

D. Stockpile soil from the anchor trench excavation for disposal within the Containment Cell or LCLSC, as appropriate.

3.3 GEOSYNTHETIC CLAY LINER INSTALLATION

A. Panel placement should commence at the upgradient limit of work and progress in a downhill fashion in all areas of the cap with a slope of 5H:1V or gentler. The panels can be placed by manually unrolling the GCL into position or by using equipment provided the chosen method does not create ruts in the underlying layers or damages the GCL. The panels should be oriented parallel to the line of maximum slope, i.e., oriented up and down, not across, the side slopes.

B. GCL rolls should be delivered to the working area of the site in their original packaging. Immediately prior to deployment, the packaging should be carefully removed without damaging the GCL or exposing GCL to precipitation. The orientation of the GCL (i.e., which side faces
up) should be in accordance with the manufacturer’s recommendations. Unless otherwise specified, however, the GCL shall be installed such that the product name printed on one side of the GCL faces up.

C. GCL shall be placed in the anchor trench. The front edge of the trench should be rounded so as to eliminate any sharp corners. Loose soil should be removed from the floor of the trench. The GCL should cover the entire trench floor.

D. Equipment that could damage the GCL will not be permitted to travel directly on it. If the installation equipment causes rutting in the compacted clay barrier layer, the compacted clay barrier layer must be restored to its originally accepted condition before GCL placement continues.

E. Care must be taken to minimize the extent to which the GCL is dragged across the Sand Gas Venting Layer in order to avoid damage to the bottom surface of the GCL. A temporary geosynthetic low permeability covering commonly known as a slip sheet or rub sheet shall be used to reduce friction damage during placement to the underlying soil or the GCL.

F. All GCL panels should lie flat on the underlying surface, with no wrinkles or fold, especially at the exposed edges of the panels.

G. Only as much GCL shall be deployed as can be covered by the end of the working day with geomembrane or a temporary waterproof tarpaulin. The GCL shall not be left uncovered overnight. If the GCL is hydrated when no confining stress is present, it may be necessary to remove and replace the hydrated material. DEPARTMENT and ENGINEER shall be consulted for specific guidance if premature hydration occurs. The CONTRACTOR will be responsible for replacing any GCL which was hydrated as a result of the CONTRACTOR’s negligence.

H. The CONTRACTOR shall carefully coordinate the sequential placement of the liner materials. The condition of the Sand Gas Venting Layer must be approved by ENGINEER before deployment of the GCL. The CONTRACTOR shall not cause damage, including but not limited to rutting, bumps, or indentations, to the underlying Sand Gas Venting Layer soil layer during placement of the GCL, as determined by DEPARTMENT and ENGINEER.

3.4 GEOSYNTHETIC CLAY LINER SEAMING

A. The GCL seams shall be constructed by overlapping their adjacent edges. Care should be taken to ensure that the overlap zone is not contaminated with loose soil or other debris. All seams shall be enhanced with sodium bentonite supplied with the GCL rolls.

B. The minimum dimension of the longitudinal overlap should be 6 inches. End-of-roll overlapped seams shall be similarly constructed, but the minimum overlap shall be 24 inches.

C. Seams at the end of the panels shall be constructed such that they are shingled in the direction of the grade to prevent the potential for runoff to enter the overlap zone.

D. Bentonite-enhanced seams shall be constructed between the overlapping adjacent panels described above. The underlying edge of the longitudinal overlap is exposed and then a continuous bead of granular sodium bentonite shall be applied along a zone defined by the edge of the underlying panel and the 6-inch line. A similar bead of granular sodium bentonite shall be
applied at the end-of-roll overlap. The bentonite shall be applied at a minimum application rate of one-quarter pound per lineal foot.

3.5 PIPE PENETRATIONS

A. Where gas vent piping penetrate the GCL, a "notch" shall be excavated into the underlying Sand Gas Venting Layer around the pipe penetrations and backfilled with granular bentonite.

B. A secondary collar of GCL shall be placed around the penetration. When placing this collar, the penetration outline should first be traced onto the collar, and then a "star" pattern should be cut into the collar to enhance its fit to the penetration. The collar shall overlap the primary GCL a minimum of 1-foot in each direction, and granular bentonite shall be placed along the seam of the secondary GCL collar and the primary GCL at a rate of 2 pounds per linear foot.

3.6 CONSTRUCTION TESTING

A. CONTRACTOR shall retain the services of a Geosynthetics Accreditation Institute – Laboratory Accreditation Program (GAI-LAP) certified laboratory for performing construction testing required in this Section.

B. The CONTRACTOR shall submit a sample of the GCL for every 50,000 square feet to the CONTRACTOR laboratory to conduct construction testing. The samples shall be a minimum 3 feet long by the full width of the panel and shall not include the first 5 feet of the roll length. These samples shall be analyzed for:

   1. Bentonite Mass/Unit (ASTM D5993) – one test every 50,000 sq. ft.
   2. Peel Strength (ASTM D6496) – one test every 50,000 sq. ft.
   3. Index Flux (ASTM D5887) – one test every 150,000 sq. ft.

C. The DEPARTMENT and ENGINEER reserve the right to request additional tests, and more frequent testing, when there is a change in the material (source or physical properties) in the material being delivered to the Site or when materials do not comply with the requirement specified herein at no additional cost to the DEPARTMENT.

3.7 GEOSYNTHETIC CLAY LINER DAMAGE REPAIR AND DETAIL WORK

A. If the GCL is damaged (torn, punctured, perforated, etc.) during installation, it shall be repaired by cutting a patch to fit over the damaged area. The patch shall be obtained from a new GCL roll and shall be cut to size such that a minimum overlap of approximately 12 inches is achieved around all of the damaged area. Dry sodium bentonite or sodium bentonite mastic shall be applied around the damaged area prior to placement of the patch. It is desirable to use an adhesive to affix the patch in place so that it is not displaced during cover placement.

B. Cutting the GCL should be performed using a sharp utility knife. Frequent blade changes are recommended to avoid damage to the geotextile components of the GCL during the cutting process.
3.8 PROTECTION OF INSTALLED MATERIALS

A. CONTRACTOR shall be responsible for maintaining installed materials and preventing their damage.

B. The GCL shall be properly secured and/or ballasted so as to prevent uplift by wind.

C. Vehicular movement over the GCL shall not be permitted until the full depth of the Barrier Protection Layer has been installed.

D. Damaged GCL and scrap material are the property of the CONTRACTOR and shall be removed from the site at the CONTRACTOR’S expense. The CONTRACTOR shall retain all ownership and responsibility for the GCL until final acceptance of the entire project by OWNER.

E. To protect the GCL against hydration, the CONTRACTOR shall cover the GCL with a plastic film or geomembrane barrier on a daily basis. The film or barrier shall be weighted down with sand bags or other materials to prevent transfer of air or liquid between the plastic film and GCL.

F. In the event of damage to prior work, CONTRACTOR shall immediately make repairs and replacements necessary to the satisfaction of the DEPARTMENT, at no additional cost to the DEPARTMENT.

3.9 GEOSYNTHETIC CLAY LINER ACCEPTANCE

A. The CONTRACTOR shall retain all ownership and responsibility for the GCL until acceptance by the DEPARTMENT.

B. The GCL will be accepted by the DEPARTMENT when the following conditions are met:
   1. Installation is finished.
   2. Verification of the adequacy of all repairs.
   3. Installation report, including “as-built” panel layout drawing(s), is provided by the CONTRACTOR.

3.10 RECORD DRAWINGS

A. The CONTRACTOR shall submit a Record Drawing of the GCL installation in accordance with Section X Standard Specifications: Section 01 73 00 – Field Engineering. The drawings shall show GCL panel locations and be at a scale not smaller than 1 inch = 50 feet. Two reproducible hard copies and electronic versions (PDF and AutoCAD 2018 or later) shall be provided.

END OF SECTION 31 05 20
PART 1 - GENERAL

1.1 SUMMARY

A. Section includes the furnishing of all Geomembrane materials, tools, supervision, equipment, and labor necessary for the Geomembrane layer component of the Containment Cell and Lockport City Landfill Sediment Cell (LCLSC) Caps, including but not limited to: transportation, handling, Geomembrane layout and placement, patching, seaming, testing, removal of unsuitable materials, protection of installed materials, and all work incidental to the proper installation of the Geomembrane Layer, as specified herein and as indicated on the Contract Drawings.

B. Related Requirements:

1. Section X Standard Specifications:
   a. Section 01 73 00 – Field Engineering

2. Section XI Supplementary Specifications
   a. Section 31 05 20 – Geosynthetic Clay Liners
   b. Section 31 23 19 – Excavation Dewatering
   c. Section 31 23 25 – Sand Gas Venting Layer
   d. Section 31 23 26 – Barrier Protection Layer

1.2 REFERENCE STANDARDS

A. ASTM International:

1. ASTM D1004 – Standard Test Method for Tear Resistance (Graves Tear) of Plastic Film Sheeting
2. ASTM D1505 – Standard Test Method for Density of Plastics by the Density-Gradient Technique
5. ASTM D4218 – Standard Test Method for Determination of Carbon Black Content in Polyethylene Compounds by the Muffle-Furnace Technique
7. ASTM D4873 – Standard Guide for Identification, Storage, and Handling of Geosynthetic Rolls and Samples
8. ASTM D5321 – Standard Test Method for Determining the Shear Strength of Soil-Geosynthetic Geosynthetic-Geosynthetic Interfaces by Direct Shear
9. ASTM D5323 – Standard Practice for Determination of 2% Secant Modulus for Polyethylene Geomembranes
12. ASTM D5721 – Standard Practice for Air-Oven Aging of Polyolefin Geomembranes
14. ASTM D5994 – Standard Test Method for Measuring Core Thickness of Textured Geomembranes
15. ASTM D6243 – Standard Test Method for Determining the Internal and Interface Shear Strength of Geosynthetic Clay Liner by Direct Shear Method

B. Geosynthetic Institute


1.3 COORDINATION

A. Coordinate Work of this Section with Geosynthetic Clay Liner installation and Geocomposite installation.

1.4 SUBMITTALS

A. Action Submittals. Submit at least 40 days prior to Work associated with the geomembrane product.
1. Product Data (Geomembrane). Include Origin and identification of raw materials used to manufacture the geomembrane
2. Shop Drawings: Indicate panel layout, seam locations, and overlap details in installation drawings. The panel layout drawing shall include a method to identify and correlate roll numbers, panel numbers, seam numbers, destructive tests, non-destructive tests, repairs, patches, pipe boots, and any related items. This numbering system shall be implemented without deviation during the installation of the Geomembrane and be reflected in the As-Built panel layout drawing.

B. Action Submittals. Submit at least 10 days prior to Work associated with the geomembrane product.
1. Samples:
   a. Submit two samples of the Geomembrane, full width by 48 inches long. DEPARTMENT may elect to conduct tests on sample at DEPARTMENT’s expense.

C. Informational Submittals. Submit at least 40 days prior to Work associated with the geomembrane product.

1. Material Source: Submit name of commercial material suppliers. Provide information on factory size, equipment, personnel, number of shifts per day and capacity per shift. Provide copy of the Manufacturer’s Quality Control Program and Manual, or descriptive documentation.

2. Manufacturer's Certificate:
   a. Certification that the Geomembrane meets or exceeds specified requirements in Part 2 of this Section.
   b. Certification that the Geomembrane Resin meets or exceeds specified requirements in Part 2 of this Section.

3. Manufacturer Instructions: Submit detailed instructions on installation requirements, including storage and handling procedures.

4. Source Quality-Control Submittals:
   a. A copy of the QC certificate issued by the manufacturer that the material has been continuously inspected for uniformity, damage, imperfections, holes, cracks, thin spots, punctures, blisters, and foreign materials.

5. Field Quality-Control Submittals:
   a. Provide a copy of the Installer’s QC Plan regarding the installation of the geomembrane which shall include, as a minimum requirement, the following information:
      1) Installation procedures
      2) Field Seaming procedures
      3) Defects documentation and repair procedures

6. Manufacturer’s Qualification Statement demonstrating compliance with the Qualifications article of this Section. Include a list of no less than 10 completed projects using the same or similar Geomembrane product with name of Installer, date of installation, and name and purpose of facility.

7. Installer’s Qualification Statement demonstrating compliance with the Qualifications article of this Section. Also include the following:
   a. Provide Certification that both the Supervisor and Master Seamer have reviewed the Contract Drawings and Specifications.
   b. Include a list of at least 10 projects meeting the requirements of the Qualifications article of this Section for which the Installer has completed. Indicate product installed, date of installation, size of project, and name and purpose of the facility.
   c. Include name and resume of the Supervisor, Master Seamer, and QC Representative.
   d. Include a list and resumes of qualified personnel performing field seaming operations.

8. A copy of the Manufacturer’s warranty, in effect for a period of 20 years, and the Installer’s warranty, in effect for a period of 1 year following completion of the project.

D. Informational Submittals. Submit within 24 hours of inspection execution or CONTRACTOR receipt of testing results.

1. Source Quality-Control Submittals: Submit results of factory tests and inspections.
2. Field Quality-Control Submittals: Submit results of Contractor-furnished tests and inspections.

E. Informational Submittals. Submit each day prior to proceeding with geomembrane installation.
1. Certification of Acceptance of Subgrade, certified prior to Work in that area.

F. Closeout Submittals.
1. Installation Report including as-built panel layout drawings. Submit within 10 days of Geomembrane installation completion.
2. Record Drawing of Geomembrane Installation. Submit within 20 days of Geomembrane installation completion.

1.5 QUALITY ASSURANCE
A. The manufacturer of the Geomembrane shall supply the CONTRACTOR with quality control certificates on each roll of Geomembrane delivered to the site. The certificates shall be prepared by the Geomembrane manufacturer and provide testing frequencies and test results as indicated in Part 2 of this Section and the manufacturer’s name, type of material, nominal thickness, roll width and length, and date of manufacture.

B. The Geomembrane Installer’s Supervisor must be on-site and be in responsible charge throughout Geomembrane installation. The Geomembrane Installer’s Master Seamer shall be present whenever seaming is performed.

C. The Geocomposite installer must establish a Quality Control (QC) program overseen by a QC Representative. The QC Representative shall be responsible for the quality and integrity of the Geomembrane installation, including all testing, inspections, and documentation. The QC Representative shall not serve as Supervisor or Master Seamer.

1.6 QUALIFICATIONS
A. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum five years' documented experience. The manufacturer shall have manufactured at least 10 million square feet of LLPDE geomembrane during the last 5 years.

B. Installer: Company specializing in performing Work of this Section with minimum three years' documented experience and must have installed at least 10 projects involving a total of 5 million square feet of similar material within the last three years.

1. The Geomembrane Installer’s Supervisor shall have experience overseeing installation of at least 2.5 million square feet of Geomembrane.
2. The Geomembrane Installer’s Quality Control Representative shall have experience performing quality control duties on at least 2.5 million square feet of Geomembrane installations.
3. The Geomembrane Installer’s Master Seamer shall have experience seaming a minimum of 3,000,000 square feet of polyethylene geomembrane, using the same apparatus specified for this project.
1.7 PRECONSTRUCTION TESTING

A. CONTRACTOR shall retain the services of a Geosynthetics Accreditation Institute – Laboratory Accreditation Program (GAI-LAP) certified laboratory for performing pre-construction testing required in this Section.

B. MANUFACTURER shall send samples of the Geomembrane taken from rolls that will be delivered to the site to the certified laboratory, as determined by the CONTRACTOR, to conduct pre-construction testing. Each sample must be identified with the corresponding roll number. The laboratory shall conduct testing consisting of interface shear tests (ASTM D5321 or ASTM D6243) between the following interfaces with actual geosynthetics and soils to be used in the project:

1. Geomembrane and Geosynthetic Clay Liner
2. Geomembrane and Sand Gas Venting Layer
3. Geomembrane and Drainage Geocomposite

A minimum of thirty (30) calendar days prior to the placement of the cap geosynthetics, the CONTRACTOR shall provide lab test results verifying the shear strength of the interfaces above. Lab tests shall be performed with actual geosynthetics and soils to be used in the project. Materials shall meet the minimum interface friction angles specified in Part 2 of this Section. Test results demonstrating adherence to minimum shear strength with differing friction angles and/or adhesion values may be submitted to the ENGINEER for approval. Materials with unacceptable results shall be retested at no additional cost to the DEPARTMENT. Tests shall be performed with the following parameters:

1. Shear rate: one (1) millimeter per minute.
2. Seating time: twenty-four (24) hours in fully hydrated condition.
3. Normal stress: one hundred (100)/two hundred (200)/four hundred (400) pounds per square foot.

C. The DEPARTMENT and ENGINEER reserve the right to request additional tests, and more frequent testing, when there is a change in the material (source or physical properties) in the material being delivered to the Site or when materials do not comply with the requirement specified herein at no additional cost to the DEPARTMENT.

D. DEPARTMENT reserves the right to collect samples of the Geomembrane for independent testing at DEPARTMENT’s expense.

1.8 DELIVERY, STORAGE, AND HANDLING

A. No materials shall be shipped to the project site without submittal of require submittals and approval by ENGINEER.

B. Transportation of the Geomembrane is the responsibility of the CONTRACTOR. The CONTRACTOR shall be liable for all damages to the materials incurred prior to and during transportation to the site.

C. Inspection: Accept materials on Site in manufacturer's original packaging and inspect for damage.
D. Each roll of Geomembrane shall be labeled by the manufacturer. The label shall state the manufacturer’s name, product identification, lot number, roll number, roll dimensions, thickness, and direction to unroll the material.

E. Comply with ASTM D4873.

F. Store materials according to manufacturer instructions.

G. Protection:
   1. Protect materials from moisture and dust by storing in clean, dry location remote from construction operations areas.
   2. Provide additional protection according to manufacturer instructions.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Extrudate Rod
   1. Manufactured from same resin type as the Geomembrane.

B. Geomembrane Resin
   1. The Geomembrane shall be manufactured of new, first quality resin and shall be designed, compounded and manufactured specifically for use in geomembranes.
   2. Reclaimed polymer shall not be added to the resin; however, the use of a polymer recycled during the manufacturing process (rework) shall be permitted if it is utilized within appropriate deadlines and if the recycled polymer does not exceed 10% by weight of the total polymer weight. If rework is used, it must be of the same formulation as the parent material.
   3. The natural polyethylene (non-formulated) resin shall conform to the following properties:
      a. Specific Gravity: <0.926 g/ml (Test Method ASTM D1505)
      b. Melt Index: ≤ 1.0 g/10min. (Test Method ASTM D1238)

C. Geomembrane
   1. The Geomembrane shall be comprised of a 60-mil textured Linear Low-Density Polyethylene (LLPDE) liner. The texturing shall be evenly distributed on both sides of the liner. The Geomembrane shall be seamless across its width and in its length. Factory seams within a roll of Geomembrane is not permitted.
   2. The Geomembrane may contain a maximum of 1% by weight of additives, fillers, or extenders (not including carbon black).
   3. The surface of the Geomembrane shall be free of striation, pinholes, bubbles, holes, blisters, undispersed raw materials, and contamination by foreign matter.
   4. The minimum roll width shall be 22.5 feet. The roll length shall be maximized in order to minimize the number of field seams.
   5. The Geomembrane shall have a maximum coefficient of permeability of $1 \times 10^{-12}$ cm/sec.
   6. The Geomembrane shall be tested at the frequencies specified and meet or exceed the physical properties values as follows:
## GEOMEMBRANE REQUIREMENTS

<table>
<thead>
<tr>
<th>Property</th>
<th>Standard</th>
<th>Frequency</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thickness</td>
<td>ASTM D5994</td>
<td>Each Roll</td>
<td>57 mil (min. avg.)&lt;br&gt;Lowest individual for 8 out of 10 values = 54 mil (min.)&lt;br&gt;Lowest individual value = 51 mil (min.)</td>
</tr>
<tr>
<td>Asperity Height</td>
<td>ASTM D7466</td>
<td>Every Second Roll</td>
<td>16 mil (min. avg.)</td>
</tr>
<tr>
<td>Density</td>
<td>ASTM D1505/792</td>
<td>200,000 lbs.</td>
<td>0.939 g/ml (max)</td>
</tr>
<tr>
<td>Tensile Properties</td>
<td>ASTM D6693 Type IV</td>
<td>20,000 lbs.</td>
<td>Strength @ Break: 90 ppi&lt;br&gt;Elongation @ Break: 250%</td>
</tr>
<tr>
<td>2% Modulus</td>
<td>ASTM D5323</td>
<td>Per formulation</td>
<td>3,600 lb/in. (max.)</td>
</tr>
<tr>
<td>Tear Resistance</td>
<td>ASTM D1004</td>
<td>45,000 lbs.</td>
<td>33 lbs, (min. avg.)</td>
</tr>
<tr>
<td>Puncture Resistance</td>
<td>ASTM D4833</td>
<td>45,000 lbs.</td>
<td>66 lbs. (min. avg.)</td>
</tr>
<tr>
<td>Axi-Symmetric Break Resistance Strain</td>
<td>ASTM D5617</td>
<td>Per formulation</td>
<td>30% (min.)</td>
</tr>
<tr>
<td>Carbon Black Content</td>
<td>ASTM D4218</td>
<td>45,000 lbs.</td>
<td>2%-3%</td>
</tr>
<tr>
<td>Carbon Black Dispersion</td>
<td>ASTM D5596</td>
<td>45,000 lbs.</td>
<td>9 values: Category 1 or 2&lt;br&gt;1 value: Category 3</td>
</tr>
<tr>
<td>Oxidative Induction Time (OIT)</td>
<td>(a) ASTM D3895 or (b) ASTM D5885</td>
<td>200,000 lbs.</td>
<td>(a) 100 (min.)&lt;br&gt;Or&lt;br&gt;(b) 400 (min.)</td>
</tr>
<tr>
<td>(a) Standard OIT</td>
<td>Or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b) High Pressure OIT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oven Aging at 85°C</td>
<td>(a) ASTM D5721 (a) ASTM D3895 or (b) ASTM D5885</td>
<td>Per formulation</td>
<td>(a) 35 (min. avg.)&lt;br&gt;Or&lt;br&gt;(b) 60 (min. avg.)</td>
</tr>
<tr>
<td>(a) Standard OIT - % retention after 90 days</td>
<td>Or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b) High Pressure OIT - % retention after 90 days</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UV Resistance</td>
<td>(a) ASTM D7238 (b) ASTM D5885</td>
<td>Per formulation</td>
<td>35 (min. avg.)</td>
</tr>
<tr>
<td>High Pressure OIT - % retained after 1600 hrs</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Properties, standards, frequencies, and values presented in this table are based on GRI – GM17 Standard Specification for “Test Methods, Test Properties and Testing Frequency for Linear Low Density Polyethylene (LLDPE) Smooth and Textured Geomembranes”

### 7. Geomembrane Interface Shear Strength

- Geomembrane/Sand Gas Venting Layer: ≥27 degrees (peak)
- Geomembrane/Geosynthetic Clay Liner: ≥27 degrees (peak)
- Geomembrane/Drainage Geocomposite: ≥27 degrees (peak)

### D. Pipe Penetration Materials

1. **Sponge Rubber Sheeting**
   - Sponge rubber sheeting shall be type SCE-41, Neoprene/EPT/SBR, Closed Cell Medium, ¼ inch thick, one side adhesive.

2. **Neoprene Adhesive**
   - Neoprene adhesive such as PYTHON shall be used for gluing sponge rubber sheeting to concrete and LLPDE surfaces.

3. **Metal Battens**
   - Batten strips shall be Type 304 stainless steel. Width of strips shall be 2 inches minimum. Thickness shall be ¼ inch.

4. **Pipe Clamps**
a. Worm gear/band type pipe clamps for securing pipe boot sleeves to pipe risers. Clamps shall be stainless steel.

E. Seaming Equipment and Accessories

1. Equipment for field seaming shall be hot-wedge fusion welders and extrusion welders.

PART 3 - EXECUTION

3.1 PREPARATION

A. Install Sand Gas Venting Layer (Containment Cell) or Geocomposite (LCLSC) and Geosynthetic Clay Liner in accordance with Section XI Supplementary Specifications: Section 31 23 25 – Sand Gas Venting Layer, 31 05 22 – Geocomposites, and Section 31 05 20 – Geosynthetic Clay Liner.

B. The surface on which the Geomembrane is to be placed shall be free of irregularities, protrusions, loose soil, stones, rocks, sticks, roots, sharp objects, or other unsuitable materials which may cause damage to the Geomembrane. No areas with standing water or which are excessively softened by high water content shall be allowed. No Work shall commence until ENGINEER approves subgrade. Provide Subgrade Acceptance Form for certification by the ENGINEER and Geomembrane Installer’s Supervisor. Subgrade acceptance must be completed each day prior to Work.

C. Ensure that the anchor trenches (see Section 31 05 20 – Geosynthetic Clay Liner) have rounded corners to avoid sharp turns in the Geomembrane.

3.2 GEOMEMBRANE INSTALLATION

A. Excavate for the perimeter anchor trench as indicated in the Contract Drawings and in accordance with Section XI Supplementary Specifications: Section 31 05 20 – Geosynthetic Clay Liner.

B. Geomembrane installation shall commence at the upgradient limit of Work and proceed downhill. The panels may be placed by manually unrolling the Geomembrane into position or by using heavy equipment provided the chosen method does not create ruts or other damage in the underlying materials or damage the Geomembrane. No heavy equipment is permitted on the Geomembrane or GCL. Rub sheets shall be placed underneath all tools, generators, welding equipment, etc. while on the Geomembrane. The Geomembrane panels shall be, to the maximum extent possible, oriented parallel to the line of maximum slope. No horizontal seams shall be allowed on slopes unless approved by the ENGINEER. Place Geomembrane panels in accordance with manufacturer’s recommendations and as specified herein.

C. After the Geomembrane is completely unrolled it must be positioned. If the panel is being installed overlapping a previously placed panel, care must be taken to align the sheets for seaming. When positioned, wrinkles shall be worked out of the Geomembrane, prior to seaming. Place a single panel at a time, and each panel shall be seamed immediately after its placement in order to minimize the number of unseamed panels exposed to wind.
D. Care must be taken to minimize the extent to which the Geomembrane is dragged across underlying soils in order to avoid damage to the surface of the underlying soils. Due to the possible damage that can result from the textured surface of the geomembrane, the geomembrane panels shall not be dragged over the surface, except for slight adjustments as may be necessary for obtaining the correct overlap of panels. Rub sheets are required if the CONTRACTOR chooses to drag the geomembrane over the underlying surface, whether the surface is soil or another geosynthetic material.

E. Each panel shall be given a unique identification code using a convention approved by the ENGINEER which is consistent with the approved Panel Layout Plan.

F. All deployed panels must be provided with ballast to prevent their movement. The CONTRACTOR shall provide ballast, as needed, to prevent the movement of deployed Geomembrane. At a minimum, sand in burlap bags should be placed every 1 to 2 feet along a seam. CONTRACTOR is responsible for additional ballast if necessary for high winds to prevent panel uplift.

G. Care in Placement

1. No equipment or tools shall damage the Geomembrane by handling, trafficking, or other items.
2. No personnel working on the Geomembrane shall smoke, wear damaging shoes, or engage in other activities that could damage the Geomembrane.
3. The method used to unroll the panels shall not cause deep or frequent scratches or crimps in the Geomembrane and shall not damage the supporting soil.
4. The method used to place the panels shall minimize wrinkles (especially differential wrinkles between adjacent panels).
5. Compensation wrinkles shall be identified as to the proper location in the CONTRACTOR’s panel layout drawings. Ballast shall be used to prevent relocation of the compensation wrinkles by the wind.
6. Adequate loading (e.g., sand bags or similar items that will not damage the Geomembrane) shall be placed to prevent uplift by wind. Continuous loading is recommended along edges of panels to minimize risk of wind flow under the panels.
7. Direct contact with the Geomembrane shall be minimized, i.e., the Geomembrane in traffic areas shall be protected by geotextiles, extra Geomembrane, or other suitable materials.
8. Any geosynthetic elements immediately underlying the Geomembrane shall be clean and free of debris.

H. Pipe Penetration Sealing System

1. The pipe penetration sealing system shall consist of a prefabricated LLPDE boot assembly comprised of a welded LLDPE barrel and flange. The LLDPE flange shall be secured to the Geomembrane material by extrusion welding. The barrel portion of the boot assembly shall be secured to the penetrating pipe by means of a stainless-steel clamp. A neoprene strip shall be installed to prevent damage to the boot assembly.
2. During installation, the boot assembly should be properly position so that it is not over stressed during placement of the overlying materials or due to subsidence.

I. Weather Conditions
1. Geomembrane deployment shall proceed between ambient temperatures of 40 degrees Fahrenheit to 104 degrees Fahrenheit.
2. Placement may proceed below 40 degrees Fahrenheit only after it has been verified by the ENGINEER that the material can be seamed according to the specification.
3. Geomembrane placement shall not be done during any precipitation, in the presence of excessive moisture (e.g., fog, rain, dew), or in the presence of excessive winds, as determined by the ENGINEER.

J. Factory Seam Quality Verifications

1. Up to 20 percent of factory fusion welds shall be field tested by non-destructive air pressure test or vacuum test to verify factory test results.
2. Additional testing at the CONTRACTOR’s expense will be required if failed tests are obtained.
3. The ENGINEER will review welds to be tested.

K. Field Seaming

1. Seams shall be oriented parallel to the line of maximum slope, that is, oriented down, not across the slope.
2. In corners and odd-shaped geometric locations, the number of field seams shall be minimized and placed outside the corners.
3. No base T-seam shall be closer than 5 ft from the toe of the slope.
4. Seams shall be aligned with the least possible number of wrinkles and “fishmouths.” If a fishmouth or wrinkle is found, it shall be relieved and cap-stripped.
5. All Geomembrane seam welding shall be by the hot-wedge (fusion) weld method. The welding equipment shall form a double-track fusion weld seam with an air channel in between. Extrusion welding is allowed but shall be limited to detail work and patching, and shall not be used as a general method of seaming unless otherwise approved by the ENGINEER. The welding process shall be in accordance with the Geomembrane Manufacturer's recommendations.
6. Prior to field seaming, the Geomembrane surface shall be free of dust, silt and debris. Furthermore, the welding surface must be dry and at the proper temperature as recommended by the Geomembrane Manufacturer. The CONTRACTOR should be equipped with an ample supply of clean rags to dry and remove dust from the welding surface. A means for preheating the seam prior to welding may be necessary in cold weather.
7. Seaming shall only be performed under proper weather conditions. The highest and lowest allowable ambient temperatures for welding are based on conditions such as ambient temperature, wind, subgrade conditions, exposure to sunlight, material type, and material thickness. Welding in such temperatures may be performed by increasing or decreasing the welding speeds and/or wedge temperature. Seaming shall not be performed during periods of precipitation. An ambient temperature between 32°F and 90°F as measured six inches above the Geomembrane surface is recommended. The ENGINEER at their discretion may request cessation of seaming due to unacceptable weather conditions or may require an increase in the number of trial welds and/or Supplementary destructive seam testing.
8. All seams shall extend the full length of the panels being joined. When seaming adjacent panels along an anchor trench, the seam shall extend completely through the anchor trench. Plywood or other flat surfaces shall be used to bridge the trench while welding the seam.
9. The CONTRACTOR shall not conduct any seaming operations without prior notification of the ENGINEER.

L. Seam Overlap

1. Panels of geomembrane must have a finished overlap of a minimum of 5 in. for hot-wedge fusion welding and 4 in. for extrusion welding, but in any event sufficient overlap shall be provided to allow peel tests to be performed on the seam.
2. No solvent or adhesive may be used.
3. The procedure used to temporarily bond adjacent panels together shall not damage the Geomembrane; in particular, the temperature of hot air at the nozzle of any spot welding apparatus shall be controlled such that the Geomembrane is not damaged.

M. Test Seams

1. Field test seams shall be conducted on Geomembrane material by a Geomembrane Manufacturer’s representative to verify that seaming conditions are satisfactory.
2. Test seams shall be conducted at the beginning of each seaming period, at the ENGINEER’S discretion, and at least once every 4 hours for each seaming apparatus used that day.
3. All test seams shall be made at a location selected by and observed by the ENGINEER in the area of the seaming.
4. The test seam samples shall be 10-ft long for hot-wedge fusion welding and 3-ft long for extrusion welding with the seam centered lengthwise.
5. Specimens 1-in. wide shall be cut from each opposite end of the test seam. A tensiometer shall be used to test these specimens for shear and peel.
6. If a test seam fails to meet field seam specifications, the seaming apparatus and seamer shall not be accepted and shall not be used for seaming until the deficiencies are corrected and two consecutive successful full test seams are achieved.

N. Trial Weld Seam Testing

1. The CONTRACTOR shall perform trial welds for each piece of equipment to be used as follows: at the beginning of each seaming period, at least once every four (4) hours, when the person running the welding equipment has changed, when the welding equipment has been shut-off or has been unused for a period for one hour or longer, and if there has been a 20°F rise or drop in ambient temperature since the last passing trial weld. The ENGINEER may require more frequent trial welds when the ambient air temperature is less than 40°F or the ENGINEER’s observation of seam conditions warrant additional trial welds.
2. Trial welds shall be performed on fragment pieces of Geomembrane, varying in length between three-feet (extrusion welds) to ten-feet (double-track welds) long and one (1) foot wide. Once completed, the weld shall be visually inspected for deficiencies before taking a minimum of seven, one-inch wide random specimens from the trial weld. The seven specimens shall be tested by the CONTRACTOR for peel and shear strength (five in peel, two in shear) using a field tensiometer with the results being properly recorded by the CONTRACTOR and ENGINEER. When peel testing is performed, both welds of double fusion welds shall be tested to provide an indication of the quality of the weld. The peel/shear strength of all specimens must meet or exceed the minimum seam strength requirements and exhibit a film tear bond. Only those pieces of equipment which provide passing test results shall be used for seaming or repair work.
3. Additional trial welds shall be performed for failed samples. This retesting procedure includes adjusting the temperature of the double track hot-wedge (or extrusion welding gun) and/or the speed at which the double track hot-wedge weld is performing. Once adjustments have been made, additional trial welds shall be made and tested. If the specimen fails the retest, the seaming apparatus and procedures shall not be accepted and shall not be used for seaming until the deficiencies are corrected and a minimum of two consecutive trial welds are achieved.

4. The CONTRACTOR shall not conduct trial welds without the prior notification of the ENGINEER.

O. Non-destructive Seam Testing

1. The CONTRACTOR shall perform non-destructive testing on all field seams over their full length during the seaming process to establish seam continuity. All seams constructed in the field shall be subjected to non-destructive testing along their entire lengths (including seams which pass through the anchor trench).

2. Vacuum and air pressure tests shall be used for non-destructive testing.

3. The vacuum test shall be used for verifying all field seams constructed by extrusion welds and single track hot-wedge fusion welds.

4. The air pressure test shall be used for verifying the continuity of the entire lengths of all double-track hot-wedge fusion welds.

5. Vacuum Testing

a. Equipment for testing single-wedge fusion seams and extrusion seams shall be comprised of the following:
   1) A vacuum box assembly consisting of a rigid housing, a transparent viewing window, a soft rubber gasket attached to the bottom, port hole, or valve assembly, and a vacuum gauge.
   2) A vacuum tank and pump assembly equipped with a pressure controller and pipe connections.
   3) A rubber pressure/vacuum hose with fittings and connections.
   4) A plastic bucket and wide paint brush.
   5) A soapy solution.

b. The following procedures shall be followed by the CONTRACTOR:
   1) Excess sheet overlap shall be trimmed away.
   2) Clean the window and gasket surfaces and check for leaks.
   3) Energize the vacuum pump and reduce the tank pressure to approximately 5 psi.
   4) Wet a strip of geomembrane approximately 12 in. × 48 in. (length of box) with a generous amount of the soapy solution.
   5) Place the box over the wetted area and compress.
   6) Close the bleed valve and open the vacuum valve.
   7) Ensure that a leak-tight seal has been created.
   8) For a minimum period of 5 seconds, examine the geomembrane through the viewing window for the presence of soap bubbles and note the response. Bubbling of the solution indicates the presence of a hole or discontinuity.
   9) If no bubbles appear after 10 seconds, close the vacuum valve and open the bleed valve, move the box over the next adjoining area with a minimum of 3 in. overlap and repeat the process.
   10) All areas where soap bubbles appear shall be marked and repaired.

6. Air Pressure Testing
a. The following procedures are applicable to processes that produce a double seam with an enclosed space. Equipment for testing double-wedge fusion seams shall be comprised of the following:
   1) An air pump equipped with pressure gauge capable of generating and sustaining a pressure between 27 and 30 psi and mounted on a cushion to protect the geomembrane.
   2) A manometer equipped with a sharp, hollow needle, or other approved pressure-feed device.

b. The following procedures shall be followed by the CONTRACTOR.
   1) Seal both ends of the seam to be tested.
   2) Insert needle or other approved pressure-feed device into the tunnel created by the double-wedge fusion weld.
   3) After a minimum 2 minute relaxation period to stabilize the air pressure in the channel, energize the air pump to a pressure between 27 and 30 psi, close valve, and sustain pressure for at least 5 minutes.
   4) If loss of pressure exceeds 3 psi, or pressure does not stabilize, locate faulty area and repair.
   5) Remove needle or other approved pressure-feed device and seal.
   6) The end of the seam channel opposite the pressure test gauge must be cut to relieve the pressure. If the pressure gauge does not detect a drop in pressure, it must be assumed that the seam channel is blocked. In this case, the location of the blockage must be identified and the seam retested in segments for continuity.

c. All test equipment shall be furnished by the CONTRACTOR.

d. If the seam is accessible to testing equipment prior to final installation, the seam shall be non-destructively tested prior to final installation.

e. If the seam cannot be tested prior to final installation, the ENGINEER shall be notified, and the seaming operations shall be observed by the Geomembrane Manufacturer’s Representative and ENGINEER for uniformity and completeness.

7. The CONTRACTOR shall verify all field seams constructed by the extrusion welding method by performing the vacuum box test.

P. Destructive Seam Testing

1. The CONTRACTOR shall verify that all seam welds are fully integrated with each other and evaluate seam strength by collecting seam samples for destructive testing. The CONTRACTOR shall perform a minimum of one destructive test sample per 500 ft of seam length from a location specified by the ENGINEER.

2. The locations of seam samples shall be determined by the ENGINEER. If field conditions warrant, or the ENGINEER suspects a seam may not have been constructed properly, samples may be collected at greater frequency. The CONTRACTOR shall not be informed in advance of the sample locations.

3. Prior to any tests, the ENGINEER shall be notified.

4. Sampling Procedure:
   a. In order to obtain test results prior to completion of cover installation, samples shall be cut by the CONTRACTOR as the seaming progresses.
   b. Sampling times and locations shall be determined by the ENGINEER.
   c. The ENGINEER will witness the obtainment of all field test samples, and the CONTRACTOR shall mark all samples with their location roll and seam number.
   d. CONTRACTOR shall also record in written form the date, time, location, roll seam number, ambient temperatures, and pass or fail description.
e. A copy of the information must be attached to each sample portion.
f. All holes in the geomembrane resulting from obtaining the seam samples shall be immediately repaired and vacuum tested.

5. Size and Disposition of Samples:
   a. The samples shall be 12 in. wide × 50 in. long with the seam centered lengthwise.
   b. If the sample passes the field peel and shear tests, the remaining sections shall be cut and distributed as follows:
      1) one 12 inch by 12 inch section for the DEPARTMENT’s archives
      2) one 12 inch by 12 inch section for the CONTRACTOR
      3) one 12 inch by 18 inch section for shear and peel testing by the ENGINEER’s independent laboratory

6. Field Laboratory Testing:
   a. The CONTRACTOR shall cut 7 1-in. wide by 12-inch long replicate specimens from their sample, and these shall be tested in field by the CONTRACTOR using a field tensiometer with the results being properly recorded by the CONTRACTOR and ENGINEER.
   b. The CONTRACTOR shall test two specimens for seam strength and five for peel strength. When peel testing is performed, both welds of double fusion welds shall be tested to provide an indication of the quality of the weld.
   c. To be acceptable, all replicate test specimens must meet or exceed the minimum seam strength requirements and exhibit a film tear bond.
   d. Any specimen that fails through the weld or by adhesion at the weldsheet interface is a non-film tear bond break and shall be considered a failure.
   e. The ENGINEER will witness field laboratory testing.

7. Field Laboratory Testing:
   a. The CONTRACTOR shall cut 7 1-in. wide by 12-inch long replicate specimens from their sample, and these shall be tested in field by the CONTRACTOR using a field tensiometer with the results being properly recorded by the CONTRACTOR and ENGINEER.
   b. The CONTRACTOR shall test two specimens for seam strength and five for peel strength. When peel testing is performed, both welds of double fusion welds shall be tested to provide an indication of the quality of the weld.
   c. To be acceptable, all replicate test specimens must meet or exceed the minimum seam strength requirements and exhibit a film tear bond.
   d. Any specimen that fails through the weld or by adhesion at the weldsheet interface is a non-film tear bond break and shall be considered a failure.
   e. The ENGINEER will witness field laboratory testing.

8. Independent Laboratory Testing:
   a. The ENGINEER will package and ship the seam samples received from the CONTRACTOR to a certified laboratory for the determination of shear and peel strengths.
   b. The test method and procedures to be used by the independent laboratory shall be the same used in field testing, where seam samples are 1-in. wide, and the grip separation rate is 2 in. per minute. Each of the 12-inch by 18-inch samples for laboratory testing shall provide 10 specimens: five for shear and five for peel. When peel testing is performed, both welds of double fusion welds shall be tested to provide an indication of the quality of the weld.
   c. All specimens shall exhibit a film tear bond. The peel and shear strength of four of the five specimens per sample must meet or exceed the minimum seam strength requirements to confirm field results. The fifth specimen must meet or exceed 80% of the minimum seam strength requirements.
d. All passing seams shall be bounded by two locations from which passing laboratory destructive tests have been taken. Reconstructed seams of over 50 feet or more in length must have a sample taken from the reconstructed seam in order to pass the destructive testing.

e. If independent tests do not pass, retests on two more samples will be performed at the CONTRACTOR’S expense.

9. The following procedures shall apply whenever a sample fails the destructive test.
   a. Reconstruct the seam between the failed location and any passed test location.
   b. Retrace the welding path to an intermediate location (at a minimum of 10 ft from the location of the failed test), at the ENGINEER’S discretion, and take a small sample for an additional field test.
   c. If this test passes, then the seam shall be reconstructed between that location and the original failed location. If the test fails, then the process is repeated.
   d. Over the length of the seam failure, the CONTRACTOR shall either cut out the old seam, reposition the panel and reseam, or add a cap strip, as required by the ENGINEER.
   e. After reseaming or placement of the cap strip, additional destructive field test(s) shall be taken within the reseamed area.
   f. The reseamed sample shall be found acceptable if test results are approved by the ENGINEER.
   g. If the test results are not acceptable, this process shall be repeated until the reseamed length is judged satisfactory by the ENGINEER.
   h. In the event that a sample fails a laboratory destructive test, then the above procedures shall be followed, considering laboratory tests exclusively.
   i. The ENGINEER will document all actions taken in conjunction with destructive test failures.

10. Testing of the geomembrane seams shall be performed by ASTM D6392, in conjunction with GRI-GM19. Seam strength requirements for the Geomembrane are as follows:

<table>
<thead>
<tr>
<th>GEOMEMBRANE SEAM REQUIREMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seam Type</td>
</tr>
<tr>
<td>Hot Wedge Seams</td>
</tr>
<tr>
<td>Extrusion Fillet Seams</td>
</tr>
</tbody>
</table>

3.3 CONSTRUCTION TESTING

A. The CONTRACTOR will retain the services of a GAI-LAP certified laboratory for performing construction testing on samples of the geomembrane liner.

B. The Geomembrane Manufacturer shall send a sample of the geomembrane every 100,000 square feet to the GAI-LAP certified laboratory, as determined by the CONTRACTOR, to conduct construction testing. The samples shall be a minimum of 3 feet long by the entire roll width and shall not include the first 5 feet of roll length. These samples shall be analyzed for the parameters listed below.
1. Thickness (ASTM D5994)
2. Asperity Height (ASTM D7466)
3. Density (ASTM D1505)
4. Tensile Properties (ASTM D6693)
5. Tear Resistance (ASTM D1004)
6. Puncture Resistance (ASTM D4833)
7. Carbon Black Content (ASTM D4218)
8. Carbon Black Dispersion (ASTM D5596)

C. DEPARTMENT and ENGINEER reserves the right to require additional tests, and more frequent testing, when the materials do not comply with the specifications, at no additional cost to the DEPARTMENT.

3.4 PROTECTION OF INSTALLED MATERIALS

A. CONTRACTOR shall be responsible for maintaining installed materials and preventing their damage.
B. Geomembrane shall be properly secured and/or ballasted to prevent uplift by wind.
C. Vehicular or equipment movement over the Geomembrane is not permitted.
D. Damaged Geomembrane and scrap material is the property of the CONTRACTOR and shall be removed from the site at CONTRACTOR’s expense.
E. In the event of damage to prior work, CONTRACTOR shall immediately make repairs and replacements necessary to the satisfaction of the DEPARTMENT, at no additional cost to the DEPARTMENT.

3.5 DEFECTS AND REPAIRS

A. Seams and non-seam areas of the geomembrane will be inspected by the ENGINEER for defects, holes, blisters, undispersed raw materials, and any sign of contamination by foreign matter.
B. Because light reflected by the geomembrane helps to detect defects, the surface of the geomembrane shall be clean at the time of inspection.
C. The geomembrane surface shall be brushed, blown, or washed by the CONTRACTOR if the amount of dust or mud inhibits inspection.
D. The ENGINEER will decide if cleaning of the geomembrane is needed to facilitate inspection.
E. Each suspect location in seam and non-seam areas shall be non-destructively tested as appropriate in the presence of the ENGINEER. Each location that fails the non-destructive testing will be marked by the ENGINEER and repaired accordingly.
F. Repair Procedures:
   1. Once the geomembrane has been deployed, the panels must be examined for flaws, holes, defects, and tears. Each location requiring a repair shall be repaired using the following repair procedures:
      a. Patching – A patch shall be used to repair defects in the geomembrane which are 1/8-inch or larger.
b. Abrading and Re-welding – This procedure may be used to repair seam sections which are less than 10 feet in length.
c. Spot Welding - Spot welding may be used to repair small tears, pinholes and/or other small defects.
d. Capping – Capping shall be used to repair failed seams that are greater than 10 feet in length.

2. Defective seams shall be restarted or re-seamed as described in these specifications.
3. Tears shall be repaired by patching. Where the tear is on a slope or an area of stress and has a sharp end, it must be rounded prior to patching.
4. Blisters, large holes, undispersed raw materials, and contamination by foreign matter shall be repaired by patches.
5. Surfaces of geomembrane that are to be patched shall be abraded and cleaned no more than 15 minutes prior to the repair. No more than 10 percent of the thickness shall be removed.
6. Patches shall be round or oval in shape, made of the same geomembrane, and extend a minimum of 6 in. beyond the edge of defects. All patches shall be of the same compound and thickness as the geomembrane specified.
7. Patches shall be applied using approved methods only. The edges of the patch or cap shall be extrusion welded to the in place geomembrane after both the liners are abraded to remove the surface sheen of the geomembrane and to provide a surface that is more conducive to accepting the weld. Welding of the repair patch or cap shall be completed by extrusion welding the geomembrane. The repairs shall be non-destructive tested using the vacuum-box method as described in this Section.
8. The CONTRACTOR shall not conduct repairs without prior notification of the ENGINEER.

G. Restart and Re-seaming Procedures:

1. The welding process shall restart by abrading the existing seam and rewelding a new seam.
2. Welding shall commence where the abrading started and must overlap the previous seam by at least 2 inches.
3. Re-seaming over an existing seam without abrading shall not be permitted.

H. Verification of Repairs:

1. Each repair shall be non-destructively tested, except when the ENGINEER requires a destructive seam sample obtained from a repaired seam.
2. Repairs that pass the non-destructive test shall be taken as an indication of an adequate repair.
3. Failed tests indicate that the repair shall be repeated and retested until passing test results are achieved.

I. Recording of Results:

1. Daily documentation of all non-destructive and destructive testing shall be provided to the ENGINEER by the CONTRACTOR.
2. This documentation shall identify all seams that initially failed the test and include evidence that these seams were repaired and successfully retested.
3.6 BACKFILLING OF ANCHOR TRENCH

A. Dewater the anchor trench in accordance with Section XI Supplementary Specifications: Section 31 23 19 – Excavation Dewatering to prevent ponding or otherwise softening of the adjacent soils while the trench is open.

B. Ensure Geocomposite is installed within anchor trench if depicted in the Contract Drawings.

C. Place Barrier Protection Layer materials in 8-in. maximum loose lifts and compact in accordance with Section XI Supplementary Specifications: Section 31 23 26 – Barrier Protection Layer.

D. Care shall be taken when backfilling the trenches to prevent any damage to the geomembrane.

E. At no time shall construction equipment come into direct contact with the geomembrane.

F. If damage occurs, it shall be repaired by the CONTRACTOR prior to the completion of backfilling.

3.7 GEOMEMBRANE ACCEPTANCE

A. The CONTRACTOR shall retain all ownership and responsibility for the geomembrane until acceptance by the DEPARTMENT.

B. The geomembrane will be accepted by the DEPARTMENT when the following conditions are met:

   1. Installation is finished.
   2. Verification of the adequacy of all field seams and repairs.
   3. Installation report, including “as-built” panel layout drawing(s), is provided by the CONTRACTOR.

3.8 RECORD DRAWINGS

A. The CONTRACTOR shall submit a Record Drawing of the Geomembrane installation in accordance with Section X Standard Specifications: Section 01 73 00 – Field Engineering. The drawings shall show geomembrane panel locations, panel numbers, and destructive sample locations and be at a scale not smaller than 1 inch = 50 feet. Two reproducible hard copies and electronic versions (PDF and AutoCAD 2018 or later) shall be provided.

END OF SECTION 31 05 21
PART 1 - GENERAL

1.1 SUMMARY

A. Section includes the furnishing of all Geocomposite materials, tools, supervision, equipment, and labor necessary for the Geocomposite gas venting layer (Lockport City Landfill Sediment Cell [LCLSC]), and the Geocomposite drainage layer (Containment Cell and LCLSC), including but not limited to: transportation, handling, Geocomposite drainage layer and gas venting layer layout and placement, patching, seaming, removal of unsuitable materials, protection of installed materials, and all work incidental to the proper installation of the Geocomposite drainage layer and gas venting layer, as specified herein and as indicated on the Contract Drawings.

B. Related Requirements:

1. Section XI Supplementary Specifications: Section 31 05 20 – Geosynthetic Clay Liner
2. Section XI Supplementary Specifications: Section 31 05 21 – Geomembrane Barrier
3. Section XI Supplementary Specifications: Section 33 05 32 – Gas Vents

1.2 REFERENCE STANDARDS

A. ASTM International:

2. ASTM D1603 – Standard Test Method for Carbon Clack Content in Olefin Plastics
3. ASTM D4716 – Standard Test Method for Determining the (In-plane) Flow Rate per Unit Width and Hydraulic Transmissivity of a Geosynthetic Using a Constant Head
4. ASTM D4873 – Standard Guide for Identification, Storage, and Handling of Geosynthetic Rolls and Samples
6. ASTM D5321 – Standard Test Method for Determining the Shear Strength of Soil-Geosynthetic and Geosynthetic-Geosynthetic Interfaces by Direct Shear
7. ASTM D7005 – Standard Test Method for Determining a Bond Strength (Ply Adhesion) of Geocomposites

B. Geosynthetic Institute:

1. GRI GC8 – Determination of the Allowable Flow Rate of a Drainage Geocomposite
1.3 COORDINATION

A. Coordinate Work of this Section with Geomembrane installation and Barrier Protection Layer installation.

1.4 SUBMITTALS

A. Action Submittals. Submit at least 40 days prior to Work associated with the Geocomposite product.
   1. Product Data (Geocomposite)
   2. Shop Drawings: Indicate panel layout, seam locations, and overlap details in installation drawings.

B. Action Submittals. Submit at least 10 days prior to Work associated with the Geocomposite product.
   1. Samples:
      a. Submit two samples of the Geocomposite, full width by 48 inches long. DEPARTMENT may elect to conduct tests on sample at DEPARTMENT’s expense.

C. Informational Submittals. Submit at least 40 days prior to Work associated with the geocomposite product.
   1. Material Source: Submit name of commercial material suppliers.
   2. Manufacturer’s Certificate: Certify that products meet or exceed specified requirements.
   3. Manufacturer Instructions: Submit detailed instructions on installation requirements, including storage and handling procedures.
   4. Manufacturer’s Qualification Statement.
   5. Installer’s Qualification Statement.

D. Informational Submittals. Submit within 24 hours of inspection execution or CONTRACTOR receipt of testing results.
   1. Source Quality-Control Submittals: Indicate results of factory tests and inspections.
   2. Field Quality-Control Submittals: Indicate results of Contractor-furnished tests and inspections.

E. Closeout Submittals.
   1. Installation Report including as-built panel layout drawings. Submit within 10 days of Geocomposite installation completion.
   2. Record Drawing of Geocomposite Installation. Submit within 20 days of Geocomposite installation completion.

1.5 QUALITY ASSURANCE

A. The manufacturer of the Geocomposite shall supply the CONTRACTOR with quality control certificates on each roll of Geocomposite delivered to the site. The certificates shall be prepared by the Geocomposite manufacturer and provide testing frequencies and test results as indicated in Part 2 of this Section.
B. The Geocomposite installer’s supervisor must be on-site and be in responsible charge throughout Geocomposite installation.

C. The Geocomposite installer must establish a Quality Control (QC) program overseen by a QC Representative. The QC Representative shall be responsible for the quality and integrity of the Geocomposite installation, including all testing, inspections, and documentation.

1.6 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum five years' documented experience.

B. Installer: Company specializing in performing Work of this Section with minimum three years' documented experience and must have installed at least 10 projects involving a total of 5 million square feet of similar material within the last three years.

   1. The Geocomposite Installer’s Supervisor shall have experience overseeing installation of at least 2.5 million square feet of Geocomposite.
   2. The Geocomposite’s Quality Control Representative shall have experience performing quality control duties on at least 2.5 million square feet of Geocomposite installations.

1.7 PRECONSTRUCTION TESTING

A. CONTRACTOR shall retain the services of a Geosynthetics Accreditation Institute – Laboratory Accreditation Program (GAI-LAP) certified laboratory for performing pre-construction testing required in this Section.

B. CONTRACTOR shall provide lab results of interface shear tests (ASTM D5321) between the following interfaces a minimum of thirty (30) calendar days prior to the placement of the cap geosynthetics:

   1. Drainage Geocomposite and Barrier Protection Layer
   2. Drainage Geocomposite and Geomembrane
   3. Gas Venting Geocomposite and GCL
   4. Gas Venting Geocomposite and Amended Fill from Area 2

Interface shear testing shall be determined utilizing normal stresses of one hundred (100)/two hundred (200)/four hundred (400) pounds per square foot. Displacement rates shall be one (1) millimeter per minute with a seating time of twenty-four (24) hours in fully hydrated condition. Each shear test shall be performed using the same installation procedures with actual geosynthetics and soils to be used in the project in order to represent actual field conditions. Test results demonstrating adherence to minimum shear strength with differing friction angles and/or adhesion values may be submitted to the ENGINEER for approval. Additional samples shall be collected and tested if the material does not meet specifications at no additional cost to the DEPARTMENT.

C. The DEPARTMENT and ENGINEER reserve the right to request additional tests, and more frequent testing, when there is a change in the material (source or physical properties) in the
material being delivered to the Site or when materials do not comply with the requirement specified herein at no additional cost to the DEPARTMENT.

D. DEPARTMENT reserves the right to collect samples of the Geocomposite for independent testing at the DEPARTMENT’s expense.

1.8 DELIVERY, STORAGE, AND HANDLING

A. Inspection: Accept materials on Site in manufacturer's original packaging and inspect for damage.

B. Comply with ASTM D4873.

C. Store materials according to manufacturer instructions.

D. Protection:
   1. Protect materials from moisture and dust by storing in clean, dry location remote from construction operations areas.
   2. Provide additional protection according to manufacturer instructions.

PART 2 - PRODUCTS

2.1 GEOCOMPOSITE

A. The Geocomposite shall be comprised of a needle-punched, non-woven, continuous filament polypropylene geotextile of at least 8 ounce which is factory heat-bonded to a high-density polyethylene (HDPE) geonet.

B. The heat bonding technique between the geotextile and the geonet should be hot air to prevent flattening of the geotextile surface.

C. The Geocomposite shall meet the following requirements:

<table>
<thead>
<tr>
<th>Material</th>
<th>Property</th>
<th>Standard</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geonet</td>
<td>Thickness</td>
<td>ASTM D5199</td>
<td>300 mil (min.)</td>
</tr>
<tr>
<td></td>
<td>Density</td>
<td>ASTM D1505</td>
<td>0.940 g/cc (min.)</td>
</tr>
<tr>
<td></td>
<td>Carbon Black Content</td>
<td>ASTM D1603</td>
<td>2% to 3%</td>
</tr>
<tr>
<td>Geotextile</td>
<td>Ply Adhesion</td>
<td>ASTM D7005</td>
<td>1.0 lbs/in. (avg.)</td>
</tr>
<tr>
<td></td>
<td>Transmissivity</td>
<td>GRI GC8</td>
<td>9 x 10^{-3} m²/s (min.)</td>
</tr>
<tr>
<td></td>
<td>(ultimate)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

D. The Geocomposite interface shear strength shall have the following friction angles:

1. Drainage Geocomposite/Barrier Protection Layer: ≥27 degrees (peak)
2. Drainage Geocomposite/Geomembrane: ≥27 degrees (peak)
3. Gas Venting Geocomposite/GCL: \( \geq 27 \) degrees (peak)
4. Gas Venting Geocomposite/Amended Fill: \( \geq 27 \) degrees (peak)

2.2 PLASTIC TIES
A. Supplied by the Geocomposite manufacturer for the purpose of securing Geocomposite panels to each other. Ties shall be white or another highly visible color for easy inspection.
B. Metallic ties are not permitted.

2.3 SEWING THREADS
A. Sewing threads used to secure adjacent panels of Geocomposite panels to each other shall be a color that provides contrast to the color of the Geocomposite.

PART 3 - EXECUTION

3.1 PREPARATION
A. For gas venting layer, place Amended Fill in accordance with Section XI Supplementary Specifications: Section 31 32 00 – Sediment Processing.
B. For drainage layer, install Geomembrane in accordance with Section XI Supplementary Specifications: Section 31 05 21 – Geomembrane Barrier.
C. The surface on which the Geocomposite is to be placed shall be free of irregularities, protrusions, loose soil, stones, rocks, sticks, roots, sharp objects, or other unsuitable materials which may cause damage to the Geocomposite or the underlying Geomembrane.
D. All Geomembrane testing shall be completed and approved prior to placing the Geocomposite drainage layer.

3.2 GEOCOMPOSITE INSTALLATION
A. Geocomposite installation shall commence at the upgradient limit of Work and proceed downhill. Geocomposite shall be installed parallel to the slope.
B. Initially, a Geocomposite panel shall be placed over a previously installed panel, and then manually positioned onto the Geomembrane. CONTRACTOR shall not drag panels over the underlying Geomembrane or compacted fill without a rub sheet.
C. After the Geocomposite is placed and overlapped on a previously placed panel, wrinkles shall be worked out of the panel prior to seaming.
D. Secure adjacent panels with plastic ties (supplied by manufacturer) approximately every five feet along the roll length and by sewing the overlapping portions. Geocomposite panels shall be overlapped by at least 4 inches for edge to edge and 12 inches for end to end.
E. Provide ballasts in the form of sand bags for every deployed panel to prevent movement of the panels. At a minimum, place burlap bags filled with sand every 2 feet along the seams. Remove sand bags prior to placing the Barrier Protection Layer.

F. Any holes or tears in the Geocomposite shall be repaired by placing a patch extending 2 feet beyond the edges of the hole or tear. The patch shall be secured by tying plastic ties every 6 inches through the bottom geotextile and the drainage net of the patch, and through the top geotextile and the drainage net of the patch, and through the top geotextile of the Geocomposite needing repair. If the hole or tear width across the roll is more than 50% of the width of the roll, the damaged area shall be cut out and the two portions of the geonet shall be joined as specified above.

G. Install the subsequent layer as soon as possible after installation of the Geocomposite is complete.

3.3 CONSTRUCTION TESTING

A. CONTRACTOR shall retain the services of a Geosynthetics Accreditation Institute – Laboratory Accreditation Program (GAI-LAP) certified laboratory for performing construction testing required in this Section.

B. The CONTRACTOR shall submit a sample of the Geocomposite for every 200,000 square feet to the CONTRACTOR laboratory to conduct construction testing. The samples shall be a minimum 3 feet long by the full width of the panel and shall not include the first 5 feet of the roll length. These samples shall be analyzed for:

1. Ply Adhesion (ASTM D7005)
2. Transmissivity (ASTM D4716)

C. The DEPARTMENT and ENGINEER reserve the right to request additional tests, and more frequent testing, when there is a change in the material (source or physical properties) in the material being delivered to the Site or when materials do not comply with the requirement specified herein at no additional cost to the DEPARTMENT.

3.4 PROTECTION OF INSTALLED MATERIALS

A. CONTRACTOR shall be responsible for maintaining installed materials and preventing their damage.

B. Geocomposite shall be properly secured and/or ballasted to prevent uplift by wind.

C. Vehicular or equipment movement over the Geocomposite is not permitted.

D. Damaged Geocomposite and scrap material is the property of the CONTRACTOR and shall be removed from the site at CONTRACTOR’s expense.

E. In the event of damage to prior work, CONTRACTOR shall immediately make repairs and replacements necessary to the satisfaction of the DEPARTMENT, at no additional cost to the DEPARTMENT.
3.5 GEOCOMPOSITE LAYER ACCEPTANCE

A. The CONTRACTOR shall retain all ownership and responsibility for the Geocomposite until acceptance by the DEPARTMENT.

B. The Geocomposite will be accepted by the DEPARTMENT when the following conditions are met:

1. Installation is finished.
2. Verification of the adequacy of all repairs.
3. Installation report, including “as-built” panel layout drawing(s), is provided by the CONTRACTOR.

3.6 RECORD DRAWINGS

A. The CONTRACTOR shall submit a Record Drawing of the Geocomposite installation in accordance with Section X Standard Specifications: Section 01 73 00 – Field Engineering. The drawings shall show Geocomposite panel locations and be at a scale not smaller than 1 inch = 50 feet. Two reproducible hard copies and electronic versions (PDF and AutoCAD 2018 or later) shall be provided.

END OF SECTION 31 05 22
SECTION 31 11 00
CLEARING AND GRUBBING

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the CONTRACTOR requirements for clearing and grubbing of vegetation including trees, shrubs, bushes, vines, brush, reeds (including phragmites) and other general woody growth material above the ground surface and buried within the upper one foot of soil.

B. Clearing shall be conducted to the full extent necessary to complete Work of this project within the Limit of Disturbance. Grubbing shall only be conducted in areas outside of the Operable Units as necessary for excavation activities. Woody root systems and stumps from beneath the soil surface within OU-1, OU-2, and OU-3 shall be handled as Debris as defined in Section XI Supplementary Specifications: Section 31 23 16 – Excavation. Alternatively, stumps may be ground in place.

C. Clearing and grubbing work to be done and paid for shall not be limited to the extent described herein but shall include all incidental work necessary for the completion of the work. The CONTRACTOR’s Work Plan shall describe the selected means and methods for this work.

D. If areas beyond the indicated Limit of Disturbance in the Contract Drawings need to be cleared, the CONTRACTOR must obtain approval from the ENGINEER. Vegetation removed without the prior approval of the ENGINEER shall be handled and managed at the CONTRACTOR’S expense. Disposal of vegetative debris resulting from activities outside of the Limit of Disturbance without ENGINEER’s approval may not be approved for disposal into the Containment Cell or Lockport City Landfill Sediment Cell (LCLSC).

E. Related Sections:
   1. Section X Standard Specifications
      a. Section 01 33 00 – Submittal Procedures
   2. Section XI Supplementary Specifications
      a. Section 01 57 13 – Temporary Erosion and Sedimentation Controls
      b. Section 02 80 01 – Decontamination
      c. Section 31 23 16 – Excavation
      d. Section 31 23 23 – Fill for Restoration
      e. Section 31 32 00 – Sediment Processing
      f. Section 32 72 01 – Pool Enhancement Features

1.2 REFERENCES

A. Occupational Safety and Health Administration
   1. 29 CFR 1910.120 – Hazardous Waste Operations and Emergency Response
   2. 29 CFR 1926.650 – Safety and Health Regulations for Construction
B. State of New York Code of Rules and Regulations
   1. 16 NYCRR Part 753 – Protection of Underground Facilities

1.3 DEFINITIONS

A. Acceptable Debris:
   1. See Section XI Supplementary Specifications: Section 31 23 16 – Excavation.

B. Acceptable Vegetative Debris:
   1. Vegetative material generated by clearing and grubbing activities that has been chipped by an approved chipping machine or stump grinder. Individual chips shall have a maximum dimension of 1 inch.

C. Clearing:
   1. Cutting and removal of trees, shrubs, bushes, vines, brush, reeds (including phragmites), and other general woody growth at the ground surface. This includes undergrowth and deadwood. Clearing does not disturb the subsoil.

D. Clearing Debris:
   1. Debris resulting from clearing activities prior to chipping.

E. Grubbing:
   1. Removal of woody root systems and stumps buried within the upper one foot of soil.

F. Grubbing Debris:
   1. Debris resulting from grubbing activities prior to chipping.

G. Unacceptable Debris:
   1. See Section XI Supplementary Specifications: Section 31 23 16 – Excavation.

H. Unacceptable Vegetative Debris:
   1. Vegetative material generated by clearing and grubbing activities that cannot be chipped by an approved chipping machine or stump grinder and cannot meet the definition of Acceptable Vegetative Debris. Classification as Unacceptable Vegetative Debris is subject to ENGINEER’s approval.

1.4 PROJECT REQUIREMENTS

A. CONTRACTOR’s selected approach and sequence for clearing and grubbing shall be developed to meet federal, state, and local requirements, address project space constraints and presence of nearby residential houses, provide protection of public health and the environment, and proactively control impacts to the public such as nuisance odors, dust, and noise levels.

B. The CONTRACTOR shall only clear and grub areas as necessary for Work.

C. Adhere to all requirements imposed by 29 CFR 1910.120 for Hazardous Waste Operations and Emergency Response during this Work.
1.5 SUBMITTALS

A. Clearing And Grubbing Plan (as a component of the Work Plan)
   1. As required by Section 01 33 00 - Submittal Procedures.
   2. Prepare a Clearing and Grubbing Plan to include as a component of the Work Plan. The Clearing and Grubbing Plan shall include at a minimum:
      a. Schedule and phasing of clearing and grubbing and material handling activities
      b. Method of clearing, grubbing, and chipping and equipment to be used with specifications and capacities.
      c. Operator qualifications and experience.
      d. Routes for transporting Vegetative Debris to Area 1 for Containment Cell Placement.
      e. Methods for monitoring equipment condition, including inspection frequencies for clearing, grubbing, and chipping equipment.
      f. Equipment decontamination, demobilization, and closeout procedures.
      g. Anticipated crew sizes and man hours per week.
      h. Spill contingency plan.

B. Action Submittals. Obtain approval prior to shipping off-site.
   1. Requests for approval to classify Clearing Debris or Grubbing Debris as Unacceptable Vegetative Debris which requires offsite disposal. Provide justification and backup explaining why processing the materials to meet the definition of Acceptable Vegetative Debris is not feasible.

1.6 PERMITS

A. The CONTRACTOR shall comply with all federal, state, and local permits obtained or applied for pertaining to this Work.

B. The CONTRACTOR shall comply with work restrictions as outlined in the permits. If discrepancies exist between these Technical Specifications and the applicable permits, the conditions of the permit shall apply.

1.7 SUBSURFACE CONDITIONS

A. Available data from previous investigations are included in the Basis of Design Report and the Limited Site Data Documents and are for informational purposes only.

B. The CONTRACTOR shall field verify the location of utilities within the work areas including, but not limited to, those shown on the Contract Drawings.
PART 2 - PRODUCTS

2.1 Not Used.

PART 3 - EXECUTION

3.1 GENERAL

A. Perform clearing and grubbing Work in accordance with all applicable laws including, but not limited to, Occupational Safety and Health Administration Excavation and Trenching Safety Regulations (29 CFR 1926.650) and Occupational Safety and Health Administration Hazardous Waste Operations and Emergency Response (29 CFR 1910.120). Adhere to site control and decontamination requirements in accordance with Section XI Supplementary Specifications: Section 02 80 01 – Decontamination.

3.2 PREPARATION

A. The CONTRACTOR shall use special care to protect public and private property. The CONTRACTOR shall take special care so as not to damage any utilities during this Work.

B. Utility One-Call:

1. CONTRACTOR shall call One-Call Center in compliance with 16 NYCRR Part 753 not less than 2 working days in advance of start date and not more than 10 working days.
2. CONTRACTOR shall not commence any activities which disturb the soil subsurface until commencement date or once all operators have indicated they have no facilities within the Work area.
3. CONTRACTOR shall preserve utility markings throughout work and shall utilize a third-party utility locator to confirm location and depth of utilities within Work areas.

C. Utilities

1. Protect existing overhead utility lines, utility poles, and underground utilities from damage.
2. Notify the ENGINEER immediately of damage to or an encounter with an existing utility line.
3. The CONTRACTOR shall repair damage to existing utility lines at no additional cost to the DEPARTMENT.
4. CONTRACTOR shall be responsible for locating and verifying the locations of aboveground and underground utilities and existing structures.

D. Protect vegetation outside of the Limit of Disturbance or in areas which clearing and grubbing is not necessary. Protect this vegetation from construction operations by erecting suitable barriers, guards, and enclosures, or by other approved means. If damaged or destroyed, repair or replace in kind at CONTRACTOR’S expense.

E. Restrict construction activities to those areas within the limits of construction designated on the Contract Drawings, within public rights-of-way, and within easements provided by the
DEPARTMENT. Adjacent properties and improvements thereon, public or private, which become damaged by construction operations shall be promptly restored to their original condition, to the full satisfaction of the property owner.

F. Install Temporary Erosion and Sedimentation Controls in accordance with Section XI Supplementary Specifications: Section 01 57 13 – Temporary Erosion and Sedimentation Controls.

3.3 CLEARING

A. Cut trees, shrubs, bushes, vines, brush, reeds (including phragmites) and other general woody growth material above the ground surface within the clearing limit. Do not disturb the subsoil.

B. Preserve logs in the quality and quantity necessary to meet the requirements of Cross Logs as specified in Section XI Supplementary Specifications: Section 31 23 22 – Fill for Restoration. Preserve logs with attached rootballs from areas outside the operable units that meet the requirements of Large Logs as specified in Section XI Supplementary Specifications: Section 32 72 01 – Pool Enhancement Features.

C. Conduct the clearing in a manner that prevents, to the extent possible, soil or soil like material from being collected with the cleared material.

D. Clearing Debris that can be chipped and processed to meet the definition of Acceptable Vegetative Debris can be stockpiled within the Exclusion Zone at OU-1 (Area 1). Clearing Debris that may not be able to meet the definition of Acceptable Vegetative Debris shall be stockpiled outside of the Exclusion Zone to prevent cross-contamination.

3.4 GRUBBING

A. Grubbing as defined in this Section is only required in areas outside OU-1 (Area 1), OU-2 (Areas 1 and 2), and OU-3 (Area 3) where removal of stumps and other subsurface woody debris is necessary for excavation activities (such as excavation for the Area 1 Site Access Road). Subsurface woody debris within the OU-1, OU-2, and OU-3 boundaries will be handled as Debris as outlined in Section 31 23 16 – Excavation.

B. Remove woody root systems and stumps buried within the upper one foot of soil in a manner that does not comingle material with Clearing Debris.

C. Grubbing Debris that can be chipped and processed to meet the definition of Acceptable Vegetative Debris can be stockpiled within the Exclusion Zone within OU-1. Grubbing Debris that may not be able to meet the definition of Acceptable Vegetative Debris shall be stockpiled outside of the Exclusion Zone to prevent cross-contamination. Waste materials resulting from removal of subsurface woody vegetation within OU-1, OU-2, and OU-3 shall be handled and processed as Debris as outlined in Section 31 23 16 – Excavation.
3.5 CHIPPING, STOCKPILING, AND DISPOSAL

A. Chip Clearing Debris and Grubbing Debris to meet the definition of Acceptable Vegetative Debris using the approved chipping machine or stump grinder. Acceptable Vegetative Debris shall be transported to OU-1 (Area 1) in accordance with Section XI Supplementary Specifications: Section 02 81 00 – Off-Site Transportation and Disposal and stockpiled in an area to allow for efficient mixing with Amended Fill prior to placement into the Containment Cell. Mix and place these materials in accordance with Section XI Supplementary Specifications: Section 31 32 00 – Sediment Processing.

B. If Clearing and Grubbing Debris cannot be chipped or otherwise processed to meet the definition of Acceptable Vegetative Debris, submit a request to the ENGINEER and DEPARTMENT with justification. Upon approval, the material may be classified as Unacceptable Vegetative Debris and disposed of offsite in accordance with Section XI Supplementary Specifications: Sections 02 80 01 – Decontamination and 02 81 00 – Off-Site Transportation and Disposal.

END OF SECTION 31 11 00
PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the CONTRACTOR requirements for the following items:

1. Stripping of Topsoil.
2. Area 1 Site Access Road.
3. OU-1 Slope Monitoring
4. Excavation of OU-1 Fill (Containment Cell Subgrade).
5. Partial Excavation of Lockport City Landfill Cap (Lockport City Landfill Sediment Cell [LCLSC] Subgrade and Landfill Access Road)
11. Preparation of Subgrade prior to filling activities.
12. Other Excavation and Items Necessary for this Work.

B. Excavation stability is the responsibility of the CONTRACTOR. Sequence and perform excavation necessary for this Work in a manner to ensure geotechnical stability of the active and surrounding slopes. Temporary slopes shall not exceed 2H:1V at any time and reverse slope benches shall be installed for any slopes greater than 20 vertical feet. Reverse slope benches shall be constructed in accordance with the New York State Standards and Specifications For Erosion and Sediment Control: Standard and Specification for Land Grading.

C. Slope monitoring of the OU-1 slope is required. Install, operation, and monitor the OU-1 Slope Inclinometers in accordance with Section XI Supplementary Specifications: Section 13 50 00 – Slope Monitoring Instrumentation.

D. Rock Removal is anticipated to only be required in two locations:

1. The first involves scaling the rock face outcrops for the Area 1 Site Access Road. The process and requirements for this Work is specified in Section XI Supplementary Specifications: Section 31 00 01 – Access Road Construction.
2. The second involves rock removal for the Buttress Groundwater Trench and Sump. The CONTRACTOR is responsible for selecting an excavation method that does not threaten the stability of nearby structures or slopes in accordance with Section XI Supplementary Specifications: Section 01 76 00 – Protecting Existing Infrastructure and Installed Construction. Blasting is not permitted.
   a. Section XI Supplementary Specifications: Section 31 37 16 – Buttress includes the requirements for the Buttress Groundwater Trench and Sump.
   b. Field adjustments of the Groundwater Trench location and depth may be approved by the ENGINEER if subsurface conditions vary significantly from expected.
E. The sediment and soil excavation/dredging work to be done and paid for shall not be limited to the extent described herein but shall include all incidental work necessary for the completion of the work. The CONTRACTOR’s Work Plan shall describe the selected means and methods for this work.

F. If excavations need to be taken beyond the limits indicated in the Contract Drawings, the CONTRACTOR must obtain approval from the ENGINEER. Soils and rock excavated without the prior approval of the ENGINEER shall be handled and managed at the CONTRACTOR’S expense.

G. Related Sections:
   1. Section X Standard Specifications:
      a. Section 01 33 00 – Submittal Procedures
      b. Section 01 51 05 – Temporary Utilities and Controls
      c. Section 01 73 00 – Field Engineering
   2. Section XI Supplementary Specifications:
      a. Section 01 57 13 – Temporary Erosion and Sedimentation Controls
      b. Section 01 76 00 – Protecting Existing Infrastructure and Installed Construction
      c. Section 02 72 00 – Water Treatment
      d. Section 02 80 01 – Decontamination
      e. Section 02 81 00 – Offsite Transportation and Disposal
      f. Section 13 50 00 – Slope Monitoring Instrumentation
      g. Section 31 11 00 – Clearing and Grubbing
      h. Section 31 23 18 – Rock Removal
      i. Section 31 23 20 – Sediment Processing
      j. Section 31 23 23 – Fill for Restoration
      k. Section 31 37 16 – Buttress
      l. Section 35 60 00 – Temporary Water Diversion and Flood Contingency Planning

1.2 REFERENCES
A. Codes, Rules and Regulations of the State of New York
   1. 16 NYCRR Part 753 – Required Support and Protection for Underground Facilities

B. Occupational Safety and Health Administration
   1. 29 CFR 1910.120 – Hazardous Waste Operations and Emergency Response
   2. 29 CFR 1926.650 – Excavation and Trenching Safety Regulations

C. New York State Department of Environmental Conservation
   1. State Pollutant Discharge Elimination System (SPDES) Equivalency Permit
   2. Standards and Specifications for Erosion and Sediment Control

1.3 DEFINITIONS
A. Acceptable Debris:
   1. Non-soil or non-ash items from OU-1 or OU-2 (either on the surface or buried) with a maximum dimension of 24 inches in any direction.

B. Active OU-2 Work Areas:
1. Areas within OU-2 in which sediment disturbance is occurring. Disturbance includes any activities which may result in the suspension of sediment into the water column, including but not limited to movement of equipment over sediment surfaces, excavation of sediment, and backfilling.

C. Competent Bedrock:
   1. Bedrock encountered during excavation in which solid rock materials comprise the majority of the volume and by which excavation with a mechanical bucket is not possible.

D. Debris:
   1. Non-soil or non-ash items from OU-1 or OU-2 (either on the surface or buried) with a dimension exceeding 6 inches in any direction that has not been processed or classified as Acceptable or Unacceptable Debris.

E. OU-1 Fill:
   1. Soils, topsoil, ash, and other materials within OU-1 in which excavation is necessary within the limits and grades of excavation as depicted in the Contract Drawings. This will constitute all material except Debris regardless of soil classification removed from OU-1.

F. OU-2 Sediment:
   1. Sediment, soils, topsoil, ash, and other materials within the horizontal and vertical limits of sediment removal as depicted in the Contract Drawings. This will constitute all material except Debris regardless of soil classification removed from OU-2.

G. Unacceptable Debris:
   1. Debris that has been approved by the ENGINEER to be disposed of offsite and the following items
      a. Appliances, automotive parts, vehicle bodies, and other items that may contain hazardous or toxic liquids such as oil, fuel, or other chemical substances.

H. Unsatisfactory Soils:
   1. Soils beyond other excavation limits which are deemed by the ENGINEER to be inadequate to support fill materials which are to be placed over them.

1.4 PERFORMANCE REQUIREMENTS

A. CONTRACTOR shall be responsible for the selection, design, furnishing, testing, operation, and maintenance of excavation equipment required for the Work specified herein.

B. CONTRACTOR’s selected approach and sequence for sediment excavation/dredging shall be developed to meet federal, state, and local requirements, address project space constraints and presence of nearby residential houses, provide protection of public health and the environment, and proactively control impacts to the public such as nuisance odors, dust, and noise levels.

C. CONTRACTOR shall employ a system to isolate Active OU-2 Work Areas from inactive areas. Turbidity controls shall be deployed and maintained around Active OU-2 Work Areas such that liquids with suspended sediment which resulted from disturbance activities shall not be released downstream or into inactive areas. CONTRACTOR’s activities shall not result in violations of
water quality standards outside of Active OU-2 Work Areas. CONTRACTOR shall manage water within OU-2 in a manner to prevent violations of water quality standards in Gulf Creek. Utilize Temporary Waterway Diversion Structures and Temporary Turbidity Controls in accordance with Section XI Supplementary Specifications: Section 35 60 00 – Temporary Water Diversion and Flood Contingency Planning.

1.5 SUBMITTALS

A. Excavation Plan (as a component of the Work Plan)
   1. As required by Section 01 33 00 - Submittal Procedures.
   2. Prepare an Excavation Plan to include as a component of the Work Plan. The Excavation Plan shall include at a minimum:
      a. Schedule and phasing of sediment/soil removal and processing activities
      b. Method of excavation and equipment to be used with specifications and capacities.
      c. Method of compaction and equipment to be used with specifications.
      d. Turbidity Controls to be utilized to isolate Active OU-2 Work Areas and prevent violations of water quality standards in Gulf Creek.
      e. Operator qualifications and experience.
      f. Routes for transporting sediment/soil to the processing areas.
      g. Methods for monitoring equipment condition, including inspection frequencies for excavation equipment.
      h. Methods and procedures for the protection of slopes, structures, utilities, and equipment during excavation.
      i. Excavation dewatering plan.
      j. Methods and equipment to process Debris to meet the definition of Acceptable Debris for Containment Cell Disposal. Additionally, identify possible instances where processing of Debris to meet this definition would not be feasible.
      k. Equipment decontamination, demobilization, and closeout procedures.
      l. Anticipated crew sizes and man hours per week.
      m. Spill contingency plan.
      n. Plans showing the horizontal extent and interim grades if they differ from the Contract Drawings.

B. Action Submittals. Submit within 10 days of completing excavation in an area and with each Application for Payment.
   1. Intermediate and Payment Surveys. Submit in accordance with Section X Standard Specifications: Section 01 73 00 – Field Engineering. Provide topographic surveys to document excavation progress and for payment.

C. Action Submittals. Obtain approval prior to shipping off-site.
   1. Requests for approval to classify Debris as Unacceptable Debris which requires offsite disposal. Provide justification and backup explaining why processing the materials to meet the definition of Acceptable Debris is not feasible.

1.6 PERMITS

A. The CONTRACTOR shall comply with all federal, state, and local permits obtained or applied for pertaining to this Work.
B. The CONTRACTOR shall comply with work restrictions as outlined in the permits. If discrepancies exist between these Technical Specifications and the applicable permits, the conditions of the permit shall apply.

1.7 SUBSURFACE CONDITIONS

A. Available data from previous investigations are included in the Basis of Design Report and the Limited Site Data Documents and are for informational purposes only.

B. The CONTRACTOR shall field verify the location of utilities within the work areas including, but not limited to, those shown on the Contract Drawings.

PART 2 - PRODUCTS

2.1 Not Used.

PART 3 - EXECUTION

3.1 PREPARATION

A. CONTRACTOR shall be responsible for locating and verifying the locations of aboveground and underground utilities and existing structures.

B. No excavation shall be performed until site utilities have been field located. Take the necessary precautions to ensure no damage occurs to existing structures and utilities. Damage to existing structures and utilities resulting from the CONTRACTOR's operations shall be repaired at no additional cost to the DEPARTMENT. Utilities encountered that were not previously shown or otherwise located shall not be disturbed without approval from the DEPARTMENT.

C. Utility One-Call:

1. CONTRACTOR shall call One-Call Center in compliance with 16 NYCRR Part 753 not less than 2 working days in advance of start date and not more than 10 working days.
2. CONTRACTOR shall not commence excavation activities until commencement date or once all operators have indicated they have no facilities within the Work area.
3. CONTRACTOR shall preserve utility markings throughout work and shall utilize a third-party utility locator to confirm location and depth of utilities within excavation areas.

D. Complete clearing and grubbing in accordance with Section XI Supplementary Specifications: Section 31 11 00 – Clearing and Grubbing.

E. Protect benchmarks, survey control points, existing structures, fences not scheduled for removal, and paving from excavating equipment and vehicular traffic.

F. Erect and maintain temporary barriers and security devices, including warning signs, warning lights, and similar measures, for protection of the public.
G. Install OU-1 Slope Monitoring Instrumentation in accordance with Section XI Supplementary Specifications: Section 13 50 00 – Slope Monitoring Instrumentation before any excavation activities occur on or near the OU-1 slope.

H. During any Work near OU-1, adhere to the Slope Monitoring Plan and Action Thresholds in the approved Slope Monitoring Plan, prepared in accordance with Section XI Supplementary Specifications: Section 13 50 00 – Slope Monitoring Instrumentation.

3.2 EXCAVATION AND DREDGING

A. Excavation of materials may not begin until the DEPARTMENT has approved the Work Plan.

B. Excavation stability is the responsibility of the CONTRACTOR. Sequence and perform excavation necessary for this Work in a manner to ensure geotechnical stability of the active slope and surrounding slopes. Cease work immediately if evidence of slope failure is observed. Temporary slopes shall not exceed 2H:1V at any time and reverse slope benches shall be installed for any slopes greater than 20 vertical feet. Reverse slope benches shall be constructed in accordance with the New York State Standards and Specifications For Erosion and Sediment Control: Standard and Specification for Land Grading.

C. Perform excavation work in accordance with all applicable laws including, but not limited to, Occupational Safety and Health Administration Excavation and Trenching Safety Regulations (29 CFR 1926.650) and Occupational Safety and Health Administration Hazardous Waste Operations and Emergency Response (29 CFR 1910.120). Adhere to site control and decontamination requirements in accordance with Section XI Supplementary Specifications: Section 02 80 01 – Decontamination.

D. Perform excavation of all types of materials encountered within the limits of the project to the lines, grades, and elevations required as depicted in the Contract Drawings or as directed by the ENGINEER and DEPARTMENT.

E. During all excavation activities, perform excavation in a manner and sequence that will provide proper drainage.

F. If unexpected subsurface conditions or unexpected contaminated materials are encountered during excavation, notify the ENGINEER immediately.

G. The CONTRACTOR shall confine operations to within the limits of work identified on the Contract Drawings. The CONTRACTOR shall reduce the potential for cross-contamination of uncontaminated or less-contaminated areas by using appropriate decontamination protocols prior to moving between areas of contamination and minimizing double moving of materials.

H. Keep materials separated until mixed in accordance with Section XI Supplementary Specifications: Section 31 32 00 – Sediment Processing.

I. Groundwater or standing water in excavations that require removal must be treated and properly disposed or discharged under the SPDES Equivalency Permit in accordance with Section XI Supplementary Specifications: Section 02 72 00 – Water Treatment.
J. The CONTRACTOR shall employ excavation methods and provide and maintain turbidity controls around active excavation areas to minimize sediment transport downstream to the extent practical in accordance with Section XI Supplementary Specifications: Section 35 60 00 – Temporary Water Diversion and Flood Contingency Planning.

K. The CONTRACTOR is responsible for implementing run-on controls as necessary to minimize stormwater and groundwater from entering excavations. The CONTRACTOR shall minimize the area and duration of open excavation.

L. Open excavations shall be securely fenced with work zone fencing (orange snow fence) and posted with barricade tape to prevent unauthorized or accidental entry. Temporary fencing shall be removed and properly disposed at the completion of the Contract. Further specifications for work zone fencing is provided in Section X Standard Specifications: Section 01 51 05 – Temporary Utilities and Controls.

M. Repair or replace items indicated to remain that have been damaged by excavation.

N. Stabilize disturbed soil surfaces in accordance with Section XI Supplementary Specifications: Section 01 57 13 – Temporary Erosion and Sedimentation Controls.

O. Stripping of Topsoil
   1. Topsoil within OU-1 is considered OU-1 Fill and shall be excavated and handled as such.
   2. Topsoil within OU-2 is considered OU-2 Sediment and shall be excavated and handled as such.
   3. Topsoil in areas outside of OU-1, OU-2, and OU-3 where excavation is necessary (such as the Lockport City Landfill Sediment Cell footprint) shall be stripped and stockpiled separately in a manner to facilitate use during site restoration. Strip the portion of the soil profile defined technically as the “A” horizon by the Soil Science Society of America. Any Debris excavated as part of this process shall be segregated and handled accordingly.

P. Specific Procedures for Area 1 Site Access Road Excavation
   1. See Section XI Supplementary Specifications: Section 31 00 01 – Access Road Construction.
   2. Stockpile materials separately in a manner to facilitate use during site restoration.
   3. If evidence of contamination, waste materials, or unsatisfactory materials are discovered, report these materials to the DEPARTMENT.

Q. Specific Procedures for OU-1 Fill Excavation (Containment Cell Subgrade)
   1. Remove and stockpile surficial Debris prior to excavation activities. Process Debris in accordance with the Debris Handling article of this section.
   2. Excavate OU-1 Fill materials to the horizontal and vertical limits identified in the Contract Drawings. Sequence and perform OU-1 Fill excavation to maintain geotechnical stability of the OU-1 slope and surrounding areas. Cease work immediately if evidence of slope failure is observed.
   3. Grade in the Temporary Stormwater Benches as depicted in the Contract Drawings. As necessary to control stormwater on active Work areas, install Temporary Erosion and Sedimentation Controls in accordance with Section XI Supplementary Specifications: Section 01 57 13 – Temporary Erosion and Sedimentation Controls. Uncontrolled stormwater discharges from disturbed soil surfaces are prohibited.
   4. Segregate buried Debris. Process Debris in accordance with the Debris Handling article of this section.
5. Stockpile OU-1 Fill and handle in accordance with this Section and Section XI Supplementary Specifications: Section 31 32 00 – Sediment Processing.

6. Stabilize the excavated surface immediately after completion of grading in accordance with Section XI Supplementary Specifications: Section 01 57 13 – Temporary Erosion and Sedimentation Controls.

7. If Unsatisfactory Soils are encountered beyond the limits of excavation, see the paragraph of this section titled Specific Procedures for Excavation of Unsatisfactory Soils Beyond Other Excavation Limits.

R. Specific Procedures for Partial Excavation of the Lockport City Landfill Cap (LCLSC Subgrade)

1. Remove and stockpile surficial Debris prior to excavation activities. Process Debris in accordance with the Debris Handling article of this section. Protect existing gas vents.

2. Excavate the upper 1 foot of the Lockport City Landfill cap materials consisting of topsoil and general fill. Do not excavate the low permeability layer.

3. Stockpile excavated soils nearby for reuse.

4. Stabilize the excavated surface immediately after completion of grading in accordance with Section XI Supplementary Specifications: Section 01 57 13 – Temporary Erosion and Sedimentation Controls.

S. Specific Procedures for OU-2 Sediment Excavation/Dredging

1. Isolate Active OU-2 Work Areas from inactive areas using turbidity controls designed to prevent the release of turbidity into non-work areas in accordance with Section XI Supplementary Specifications: Section 35 60 00 – Temporary Water Diversion and Flood Contingency Planning.

2. Remove and stockpile surficial Debris prior to excavation/dredging activities. Process Debris in accordance with the Debris Handling article of this section. Excavate/dredge OU-2 Sediment to the horizontal limits identified in the Contract Drawings as “Extent of Sediment Removal”.

3. Excavate/dredge OU-2 Sediment vertically until meeting any of the following limits:
   a. To the grades of the Sediment Removal Surface as depicted in the Contract Drawings (and provided electronically).
      1) Elevation Tolerance: +0 inches/-4 inches (i.e. excavation may be deeper than the Sediment Removal Surface by 4 inches, but no shallower).
   b. To a maximum slope of 50% (2H:1V) from the Extent of Sediment Removal as identified in the Contract Drawings.
   c. To Competent Bedrock.
      1) Elevation Tolerance: +3 inches/-0 inches (i.e. a maximum of 3 inches of sediment may be left in place over Competent Bedrock).
   d. Excavation/dredging of OU-2 Sediment within the footprint of the Buttress and Groundwater Underdrain shall be completed to the limits identified in items b. and c. of this paragraph (i.e. excavation within the footprint of the Buttress or Containment Cell shall be to Competent Bedrock or a maximum 50% slope from the edge of the Sediment Removal Limits).

4. If Unsatisfactory Soils are encountered beyond the limits of excavation, see the paragraph of this section titled Specific Procedures for Excavation of Unsatisfactory Soils Beyond Other Excavation Limits.

5. Segregate buried Debris. Process Debris in accordance with the Debris Handling article of this section.

6. Process OU-2 Sediment in accordance with Section XI Supplementary Specifications: Section 31 32 00 – Sediment Processing.
7. Control surface and groundwater flow into active excavation to the greatest extent possible. Any liquids which require removal from active excavation areas must be treated and discharged in accordance with Section XI Supplementary Specifications: Section 02 72 00 – Water Treatment and the SPDES Equivalency Permit.

8. Prevent release of suspended sediment into inactive areas of Gulf Creek or wetland areas. Ensure violations of water quality standards will not occur when turbidity controls are removed from Active OU-2 Work Areas.

T. Specific Procedures for Groundwater Trench Excavation
1. See Section XI Supplementary Specifications: Section 31 37 16 – Buttress.
2. Excavate the Groundwater Trench to the horizontal and vertical limits identified in the Contract Drawings using mechanical excavation, jack-hammering, and hand scaling.
3. CONTRACTOR is responsible for selecting an excavation method that does not threaten the stability of nearby structures or slopes. Blasting is not permitted.
4. Treat rock obtained from the Groundwater Trench excavation as Debris. Process Debris in accordance with the Debris Handling article of this section.

U. Specific Procedures for Seep French Drain, GAC Vault, and bank stabilization at Gulf Creek Seep.
1. Excavate for the Seep French Drain and GAC Vault as depicted in the Contract Drawings.
2. Excavate streambank to a 2H:1V slope.
3. Stabilize the stream bank surface immediately after completion of grading in accordance with Section XI Supplementary Specifications: Section 01 57 13 – Temporary Erosion and Sedimentation Controls.
4. If Unsatisfactory Soils are encountered beyond the limits of excavation, see the paragraph of this section titled Specific Procedures for Excavation of Unsatisfactory Soils Beyond Other Excavation Limits.

V. Specific Procedures for Excavation of Unsatisfactory Soils Beyond Other Excavation Limits
1. If Unsatisfactory Soils are encountered on the subgrade of the Buttress, Groundwater Underdrain, or Containment Cell, additional excavation to replace this soil may be approved by the DEPARTMENT.
2. Notify the ENGINEER if Unsatisfactory Soils are discovered in the subgrade surfaces within the footprint of the Buttress, Groundwater Underdrain, or Containment Cell. Alternatively, the ENGINEER may notify the CONTRACTOR of Unsatisfactory Soils in these areas. In both scenarios, the DEPARTMENT may approve additional excavation to remove these soils.
3. Upon approval, excavate Unsatisfactory Soils as directed by the ENGINEER and DEPARTMENT.
4. Backfill and compact these excavations with Common Fill in accordance with Section XI Supplementary Specifications: Section 31 23 23 – Fill for Restoration. Backfill with Amended Fill may be approved if the Unsatisfactory Soils were excavated from below the footprint of the Containment Cell but outside the limits of the Groundwater Underdrain and Buttress.
3.3 DEBRIS HANDLING

A. Debris shall be segregated and processed to meet the definition of Acceptable Debris with the exceptions and conditions listed below. Processing of Debris to reduce its size shall include shredding, grinding, cutting, crushing, and other methods approved in the Work Plan.

1. Tires. Regardless of size, all tires shall be shredded to cut into pieces no greater than 3 inches in any dimensions.

2. Appliances, automotive parts, vehicle bodies, and items that may contain hazardous or toxic liquids such as oil, fuel, or other chemical substances shall be handled and disposed of offsite as Hazardous or Non-Hazardous Debris in accordance with Section XI Supplementary Specifications: Sections 02 80 01 – Decontamination and 02 81 00 – Off Site Transportation and Disposal.

3. If Debris cannot be processed to meet the definition of Acceptable Debris, the CONTRACTOR shall submit a request along with a justification to the ENGINEER. Upon approval by the ENGINEER, the CONTRACTOR shall handle and dispose of the waste offsite in accordance with Section XI Supplementary Specifications: Sections 02 80 01 – Decontamination and 02 81 00 – Off Site Transportation and Disposal.

B. Stockpile Acceptable Debris for inclusion into the Containment Cell or Lockport City Landfill Sediment Cell in accordance with Section XI Supplementary Specifications: Section 31 32 00 – Sediment Processing.

3.4 PREPARATION OF SUBGRADE PRIOR TO FILLING ACTIVITIES

A. Prior to commencing with any Work to fill above excavated or undisturbed subgrade, prepare the subgrade per the requirements of this article.

B. Subgrade shall be relatively smooth, firm, and free from obstructions or voids that would affect proper position of any materials (geotextiles, fills, etc.) that are to be placed on the subgrade.

C. If Unsatisfactory Soils are identified by the CONTRACTOR or ENGINEER, following procedures outlined in the paragraph of this section titled Specific Procedures for Excavation of Unsatisfactory Soils Beyond Other Excavation Limits.

D. Prepare subgrade by providing at least three passes with a piece of construction equipment which exerts at least 10 psi ground pressure. Submit equipment specifications for approval to ENGINEER. Equipment shall be able to safely traverse steep slopes.

E. Prevent displacement of loose soil from falling into excavation and maintain soil stability.

F. Protect structures, utilities, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards that may be created by earth operations.

G. Protect all finished work. Repair graded or stabilized areas prior to the acceptance of work, and re-establish grades to the required elevation and slopes as necessary.

END OF SECTION 31 23 16
PART 1 - GENERAL

1.1 SUMMARY

A. Section includes requirement for excavation dewatering.

B. Related Requirements:

1. Section X Standard Specifications:
   a. Section 01 33 00 - Submittal Procedures

2. Section XI Supplementary Specifications:
   a. Section 02 72 00 – Water Treatment
   b. Section 31 23 16 – Excavation
   c. Section 31 23 23 – Fill for Restoration
   d. Section 31 23 24 – Groundwater Underdrain
   e. Section 31 37 16 – Buttress
   f. Section 35 60 00 – Temporary Water Diversion and Flood Contingency Planning

1.2 DEFINITIONS

A. Excavation Dewatering:

1. Collection and removal of surface water and groundwater which has accumulated in open excavations as necessary to complete Work of this project.

1.3 COORDINATION

A. Coordinate Work of this Section to allow for the efficient completion of the following activities:

1. Excavation of OU-2 Sediment in accordance with Section XI Supplementary Specifications: Section 31 23 16 – Excavation.

2. Installation of the Buttress and Groundwater Trench in accordance with Section XI Supplementary Specifications: Section 31 37 16 – Buttress.


4. Installation of backfill to reach proposed grades within OU-2 in accordance with Section XI Supplementary Specifications: Section 31 23 23 – Fill for Restoration.

5. Any other operations which require excavation dewatering.

1.4 PERFORMANCE REQUIREMENTS

A. Design, provide, and operate an excavation dewatering system to allow Work to proceed.
1. Remove surface water from the work areas during excavation, installation of backfill, and installation of habitat features to the extent necessary.
2. Maintain stability of excavation. Slope stability of temporary slopes are the responsibility of the CONTRACTOR.

B. Ensure all discharges to Waters of the United States comply with all federal, state, and local regulations and the permits obtained for this work.

1.5 SUBMITTALS

A. Excavation Dewatering Plan (as a component of the Work Plan)
   1. As required by Section 01 33 00 - Submittal Procedures.
   2. Prepare an Excavation Dewatering Plan to include as a component of the Work Plan. The Excavation Dewatering Plan shall address the methods and techniques to dewater excavations within Area 1 and Area 2 of OU-2. Include the following at a minimum:
      a. Indicate dewatering system layout, dewatering pump locations, pipe sizes and capacities, grades, filter sand gradations, surface water control devices, valves, and water disposal method and location.
      b. Indicate primary and standby power system location and capacity.
      c. Indicate layout of flow measuring devices for system performance measurement.
      d. Include detailed description of dewatering and monitoring system installation procedures and maintenance of equipment.
      e. Include description of emergency procedures to follow when problems arise.

B. Action Submittals. Submit at least 20 days prior to excavation dewatering Work.
   1. Shop Drawings:
      a. Depict excavation dewatering system design, location, pipes, etc.
   2. Product Data:
      a. Submit sizes, capacities, priming method, and motor characteristics for dewatering pumps.
      b. Submit pumping equipment for control of surface water within excavation.

C. Informational Submittals. Submit at least 20 days prior to excavation dewatering Work.
   1. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

D. Informational Submittals. Submit on Monday for the preceding 7 days during which Excavation Dewatering Work occurred.
   1. Weekly Monitoring Reports:
      a. Dewatering flow rates.
      b. Maintenance records for dewatering systems.

PART 2 - PRODUCTS

2.1 SYSTEM DESCRIPTION

A. Furnish dewatering and surface water control systems as needed to allow Work to be completed in an efficient manner.
2.2 PERFORMANCE AND DESIGN CRITERIA

A. Design:
   1. Lower water table sufficiently as necessary to perform Work.
   2. Remove water from excavations as necessary to perform Work.

2.3 DEWATERING EQUIPMENT

A. Select dewatering equipment to meet specified performance requirements.
B. Flow Measurement Devices:
   1. Pitometer installed to measure flow from entire dewatering system.

PART 3 - EXECUTION

3.1 DEWATERING SYSTEM

A. Install dewatering system according to Shop Drawings.
B. Locate system components to allow continuous dewatering operations without interfering with installation of permanent Work.
C. Adhere to the requirements for surface water quality in Section XI Supplementary Specifications: Section 35 00 00 – Temporary Water Diversions and Flood Contingency Planning. Prevent visual impairment of Gulf Creek downstream of each Work area:
   1. Gulf Creek at the downstream end of Area 1 shall not be visually impaired by Area 1 Work.
   2. Gulf Creek at the downstream end of Area 2 shall not be visually impaired by Area 2 Work.
D. Initial Dewatering of Work Areas
   1. Water removed prior to sediment disturbance does not require treatment and may be pumped out of the work area to an adjacent segment of the creek such that it does not cause a visual impairment to Gulf Creek. The bottom 6 in. of water that comes into contact with the top of the sediment or the subgrade surface shall not be discharged to an adjacent segment of the creek. Any captured water shall be pumped to the onsite water treatment system, treated, and discharged in accordance with Section XI Supplementary Specifications: Section 02 72 00 – Water Treatment.
   2. Prevent erosive conditions at the discharge point. Install rip rap or apply equivalent measures approved by the DEPARTMENT.
E. Active Excavation Dewatering
   1. Once sediment removal commences, remove water due to rainfall, snowmelt, creek flow, groundwater inflow, sediment dewatering, and other sources as necessary to complete Work. Any water removed from active excavation areas shall be pumped to the onsite
water treatment system, treated, and discharged in accordance with Section XI Supplementary Specifications: Section 02 72 00 – Water Treatment.

F. Dewatering After Flood Events

1. After a flood event which inundates active work areas, allow the suspended solids to settle until release of contained water would not cause a visual impairment to Gulf Creek. Adhere to the requirements in Section XI Supplementary Specifications: Section 35 00 00 – Temporary Water Diversions and Flood Contingency Planning. Obtain ENGINEER approval prior to releasing water without treatment.

2. This water may then be discharged to the creek using a floating pump intake until the water surface elevation is within 6 in. of the excavation bottom or until discharge of water would cause a visual impairment. The CONTRACTOR shall take measures to prevent suspension of sediment both at the intake and discharge ends of the pump.

3. Prevent erosive conditions at the discharge point. Install rip rap or apply equivalent measures approved by the DEPARTMENT.

4. Post-flood dewatering is considered incidental to the work.

3.2 SURFACE WATER CONTROL SYSTEM

A. Provide surface water and groundwater diversion systems in accordance Section XI Supplementary Specifications: Section 35 60 00 – Temporary Water Diversion and Flood Contingency Planning.

3.3 SYSTEM OPERATION AND MAINTENANCE

A. Monitoring:

1. Conduct daily observation of dewatering system and monitoring system.

2. Make required repairs and perform scheduled maintenance.

B. Fill fuel tanks before tanks drop to 25 percent capacity.

C. Start emergency generators at least twice each week to check operating condition.

D. System Failure:

1. If dewatering system cannot control water within excavation, notify ENGINEER and stop excavation Work.

2. Supplement or modify dewatering system and provide other remedial measures to control water within excavation.

3. Demonstrate that dewatering system operation complies with performance requirements before resuming excavation operations.

E. Modify dewatering and surface water control systems if operation causes or threatens to cause damage to new construction, existing Site improvements, or adjacent property.

F. Correct unanticipated pressure conditions affecting dewatering system performance.

G. Do not discontinue dewatering operations without approval of ENGINEER.
3.4 WATER TREATMENT AND DISCHARGE

A. Treat and discharge collected excavation dewatering liquid in accordance with Section XI Supplementary Specifications: Section 02 72 00 – Water Treatment and the project’s SPDES Equivalency Permit.

3.5 SYSTEM REMOVAL

A. Remove dewatering and surface water control systems after dewatering operations are discontinued.

END OF SECTION 31 23 19
PART 1 - GENERAL

1.1 SUMMARY

A. The section specifies the requirements for installation fill materials for restoration purposes, including Common Fill, Area 1 Riffle Stone, Area 1 Cascade Stone, Area 2 Riffle Stone, Plunge Pools, Wetland Topsoil, and Topsoil. This section is to be used with the requirements contained in all other sections, including the related sections listed below. The CONTRACTOR shall provide all labor, materials, equipment, and incidentals to complete the work specified in this section.

B. Related Requirements:
   1. Section XI Supplementary Specifications:
      a. Section 02 72 00 – Water Treatment
      b. Section 31 05 19 – Geotextiles
      c. Section 31 23 16 – Excavation
      d. Section 31 23 19 – Excavation Dewatering
      e. Section 32 92 19 – Seeding
      f. Section 35 60 00 – Temporary Water Diversion and Flood Contingency Planning

1.2 REFERENCE STANDARDS

A. ASTM International:
   1. ASTM D2487 – Standard Practice for Classification of Soils for Engineering Purposes (USCS)
   2. ASTM D698 – Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12400 ft-lbf/ft³)

B. New York State Department of Transportation
   1. NYSDOT Standard Specifications

1.3 DEFINITIONS

A. Cohesionless Materials
   1. Cohesionless materials include materials classified in ASTM D2487 as GW, GP, SW, and SP. Also includes materials classified as GM and SM when the fines are identified as nonplastic.

B. Cohesive Materials
1. Cohesive materials include materials classified in ASTM D2487 as GC, SC, ML, CL, MH, and CH. Also includes materials classified as GM and SM when the fines are identified as plastic.

C. Degree of Compaction
1. Degree of compaction is expressed as a percentage of the maximum density obtained in the test procedure presented in ASTM D698 abbreviated as a percent of laboratory maximum density.

D. Subgrade
1. Subgrade shall be considered as the native or improved soil surface on which a subsequent layer or layers of soil materials, concrete, pavement, or structures is to be placed. Shall be approved by the ENGINEER prior to placement of subsequent materials or structures.

1.4 SUBMITTALS

A. Action Submittals. Submit at least 20 days prior to product delivery to site and any Work associated with products.
1. Product Data

B. Informational Submittals. Submit at least 20 days prior to product delivery to site and any Work associated with products.
1. Material Source: Submit name of commercial material suppliers.
2. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

C. Action Submittals. Submit at least 5 days prior to product delivery to Site.
1. Preconstruction Testing Results documenting compliance with Part 1.5 and Part 2 requirements of this Section and NYSDEC DER-10/6 NYCRR Part 375 requirements.

D. Action Submittals. Submit within 12 hours of test completion.
1. Common Fill Construction Testing Results documenting compliance with compaction requirements.

E. Informational Submittals. Surveys.
1. Survey of subgrade prior to backfilling. Submit prior to performing any backfilling activities.
2. Survey of Common Fill placement prior to backfilling with other products. Submit prior to backfilling with other products.
3. Survey of final grades. Submit within 10 days of completion of backfilling activities.
4. Survey of final grades at least 30 days after completion of backfilling activities. Submit within 6 weeks of completion of backfilling activities.

1.5 PRECONSTRUCTION TESTING

A. CONTRACTOR shall retain the services of qualified geotechnical and analytical laboratories to conduct pre-construction tests on samples of each fill material. Laboratories must meet requirements set forth in Section X Standard Specifications: Section 01 45 29 – Testing Laboratory Services Furnished by Contractor. Complete the following preconstruction testing
for each source of the following materials to be used in each Area (i.e. Common Fill to be used in Area 1 shall be tested in accordance with this Paragraph, and Common Fill to be used in Area 2 shall be test in accordance with this Paragraph, even if the materials for Area 1 and Area 2 are from the same source).

1. **#1 Crushed Stone or Gravel**
   a. One classification of Soils for Engineering Purposes ASTM D2487

2. **Area 1 Riffle Stone**
   a. One Particle Size Analysis ASTM D5519 and ASTM D6913 of final mixed product

3. **Area 1 Cascade Stone**
   a. One Particle Size Analysis ASTM D5519 and ASTM D6913 of each component (if mixed in the field) or of final mixed product (if mixed prior to delivery)

4. **Area 2 Riffle Stone**
   a. One Particle Size Analysis ASTM D5519 and ASTM D6913 of final mixed product

5. **Common Fill**
   a. One Classification of Soils for Engineering Purposes ASTM D2487
   b. One Standard Proctor ASTM D698

6. **Fine Stone Fill**
   a. One Particle Size Analysis ASTM D5519 and ASTM D6913

7. **Light Stone Fill**
   a. One Particle Size Analysis ASTM D5519 and ASTM D6913

8. **Medium Stone Fill**
   a. One Particle Size Analysis ASTM D5519 and ASTM D6913

9. **Riprap Bedding**
   a. One Classification of Soils for Engineering Purposes ASTM D2487

10. **Topsoil**
    a. One Classification of Soils for Engineering Purposes ASTM D2487
    b. One pH ASTM D4972
    c. One organic content ASTM D2974
    d. One test to ascertain percentage of nitrogen, phosphorus, potash, and soluble salt

11. **Wetland Topsoil**
    a. One Classification of Soils for Engineering Purposes ASTM D2487
    b. One pH ASTM D4972
    c. One organic content ASTM D2974
    d. One test to ascertain percentage of nitrogen, phosphorus, potash, and soluble salt

B. Imported materials must be sampled and tested in accordance with the requirements and frequencies required by NYSDEC DER-10 and 6 NYCRR Part 375. Levels of contamination must not exceed the lower of the groundwater and residential use levels as shown in Appendix 5 of DER-10.

C. The DEPARTMENT and ENGINEER reserve the right to request additional tests, and more frequent testing, by CONTRACTOR when there is a change (i.e. source or physical properties) in the material being delivered to the site or when materials do not comply with the specifications at no additional cost to the DEPARTMENT.
1.6 ENVIRONMENTAL REQUIREMENTS

A. Do not install fill materials in wind in excess of 10 mph or during inclement weather including rain and snow. Do not install fill materials when frozen. Do not install fill materials over subgrade that is muddy, frozen, or contains frost.

B. Earthwork activities shall be suspended when satisfactory results cannot be obtained because of rain, freezing temperatures, moisture content, or other unsatisfactory conditions in the field.

PART 2 - PRODUCTS

2.1 FILL MATERIALS

A. #1 Crushed Stone or Gravel:
   1. #1 Crushed Stone or Gravel shall meet the requirements of NYSDOT Standard Specifications 703-0201 or 703-0202 #1 Crushed Stone or Gravel.
   2. Material shall be locally derived from sources within NYSDOT Regions 4 or 5.

B. Area 1 Riffle Stone:
   2. Material shall be locally derived from sources within NYSDOT Regions 4 or 5.
   3. Final material shall be a well-graded (no gaps in gradations) stone which meets the following:

<table>
<thead>
<tr>
<th>Stone Diameter</th>
<th>Percent Finer</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 inch</td>
<td>100</td>
</tr>
<tr>
<td>9 inch</td>
<td>75 – 85</td>
</tr>
<tr>
<td>6 inch</td>
<td>40 – 60</td>
</tr>
<tr>
<td>3 inch</td>
<td>20 – 30</td>
</tr>
<tr>
<td>1.5 inch</td>
<td>10 – 15</td>
</tr>
<tr>
<td>0.5 inch</td>
<td>5 – 10</td>
</tr>
<tr>
<td>No. 4 Sieve</td>
<td>0 - 5</td>
</tr>
</tbody>
</table>

C. Area 1 Cascade Stone:
   1. Area 1 Cascade Stone consists of stone with naturally appearing coloration.
   2. White stone will not be accepted.
   3. Area 1 Cascade Stone shall be a mix of NYSDOT Standard Specifications 733.2101 Stone Filling, Fine; 733.2102 Stone Filling, Light; and 733.2103 Stone Filling, Medium.
   4. Material shall be locally derived from sources within NYSDOT Regions 4 or 5.
   5. Gradation shall meet the following requirements:

<table>
<thead>
<tr>
<th>Amount of Mix (%)</th>
<th>Stone Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>NYSDOT Fine Stone (620.02)</td>
</tr>
<tr>
<td>30</td>
<td>NYSDOT Light Stone (620.03)</td>
</tr>
<tr>
<td>50</td>
<td>NYSDOT Medium Stone (620.04)</td>
</tr>
</tbody>
</table>

D. Area 2 Riffle Stone:
2. Material shall be locally derived from sources within NYSDOT Regions 4 or 5.
3. Final material shall be a well-graded (no gaps in gradations) stone which meets the following:

<table>
<thead>
<tr>
<th>Stone Diameter</th>
<th>Percent Finer</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 inch</td>
<td>100</td>
</tr>
<tr>
<td>12 inch</td>
<td>85 – 90</td>
</tr>
<tr>
<td>9 inch</td>
<td>70 – 80</td>
</tr>
<tr>
<td>6 inch</td>
<td>30 – 50</td>
</tr>
<tr>
<td>3 inch</td>
<td>20 – 30</td>
</tr>
<tr>
<td>1.5 inch</td>
<td>10 – 15</td>
</tr>
<tr>
<td>0.5 inch</td>
<td>5 – 10</td>
</tr>
<tr>
<td>No. 4 Sieve</td>
<td>0 - 5</td>
</tr>
</tbody>
</table>

E. Common Fill:
1. Used for general fill in wetland/stream areas and other incidental backfill.
2. Material shall be locally derived from sources within NYSDOT Regions 4 or 5.
3. Classified by ASTM D2487 as GW, GP, GM, GP-GM, GW-GM, GC, GP-GC, GM-GC, SW, and SP. These materials have a unit weight of at least 95 lbs/CF and are free of rocks, stones, and foreign material larger than 3 inches.
4. In some areas, the ENGINEER may approve use of recycled materials to displace the amount of Common Fill necessary to achieve grades. CONTRACTOR may propose clean recycled materials to bury within these areas subject to approval by the DEPARTMENT and ENGINEER.
5. Must be certified clean in compliance with NYS DER-10 section 5.4(e). Certification must be received and approved by the ENGINEER prior to delivery of fill materials to the Site. If certification cannot be obtained from the supplier, analytical samples shall be collected and analyzed in accordance with NYS DER-10 section 5.4(e).

F. Cross Logs:
1. Salvaged from the site and consisting of logs 8 in. to 16 in. in diameter and 6 ft min. in length, without considerable taper. Remove branches so that the log may lie flat on the channel bed. Poplar will not be accepted for cross log.

G. Fine Stone Fill:
2. Material shall be locally derived from sources within NYSDOT Regions 4 or 5.
3. Fine Stone Fill shall be stone with naturally appearing coloration.
4. White stone will not be accepted.

H. Light Stone Fill:
2. Material shall be locally derived from sources within NYSDOT Regions 4 or 5.
3. Light Stone Fill shall be stone with naturally appearing coloration.
4. White stone will not be accepted.

I. Medium Stone Fill:
2. Material shall be locally derived from sources within NYSDOT Regions 4 or 5.
3. Medium Stone Fill shall be stone with naturally appearing coloration.
4. White stone will not be accepted.

J. Natural Erosion Control Blanket
1. The Natural Erosion Control Blanket shall meet the specifications of NYSDOT Standard Specifications 713-08 Class II Type C. Manufacturer and product shall appear on the NYSDOT Materials Approved List for 713-07 Class II Type C.

K. Riprap Bedding
1. Riprap Bedding shall meet the requirements of NYSDOT Standard Specifications 733-2301 Bedding Material, Type 1.
2. Material shall be locally derived from sources within NYSDOT Regions 4 or 5.

L. Stabilization Geotextile
1. See Section XI Supplementary Specifications: Section 31 05 19 – Geotextiles.

M. Topsoil:
1. Imported topsoil must meet requirements of NYSDOT Standard Specifications 713-01 Topsoil Special Planting Mix.
   a. pH between 5.5 and 7.0
   b. Must be certified clean in compliance with NYS DER-10 section 5.4(e). Certification must be received and approved by the ENGINEER prior to delivery of fill materials to the Site. If certification cannot be obtained from the supplier, analytical samples shall be collected and analyzed in accordance with NYS DER-10 section 5.4(e).
   c. Material shall be locally derived from sources within NYSDOT Regions 4 or 5.
   d. Organic content shall be not less than 10% or more than 15% dry weight basis and be comprised of leaf or well rotted manure compost meeting the requirements of NYSDOT Standard Specifications 713-15.
   e. Gradation requirements:
   
<table>
<thead>
<tr>
<th>Sieve Size</th>
<th>Percent Finer</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 inch</td>
<td>100</td>
</tr>
<tr>
<td>1 inch</td>
<td>85 – 100</td>
</tr>
<tr>
<td>¼ inch</td>
<td>65 – 100</td>
</tr>
<tr>
<td>No. 200</td>
<td>20 – 40</td>
</tr>
<tr>
<td>2 micron</td>
<td>5 – 35</td>
</tr>
</tbody>
</table>

2. Applies to imported topsoil and stripped topsoil. Amend if required to achieve these specifications.
   a. Amendments shall be suitable for their intended uses and locations.
   b. Amendments shall be organic based and “OMRI Listed” indicating that the product is approved by OMRI for use as an organic input.
   c. Amendments shall be approved by the DEPARTMENT and ENGINEER.

N. Weir and Footer Stones:
1. Consists of boulders with naturally appearing coloration approved by the Engineer prior to placement.
2. Material shall be locally derived from sources within NYSDOT Regions 4 or 5.
3. White stone will not be accepted.
4. Stones which follow the sizing set forth in the Contract Drawings and noted below.

<table>
<thead>
<tr>
<th>Stone Type</th>
<th>Short Axis</th>
<th>Intermediate Axis</th>
<th>Long Axis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weir and Footer Stones</td>
<td>1.0 – 1.5 ft</td>
<td>2.0 – 2.5 ft</td>
<td>2.5 – 3.0 ft</td>
</tr>
</tbody>
</table>

O. Wetland Topsoil:
1. Must meet requirements of NYSDOT Standard Specifications 713-01 Topsoil – Wetland Materials (offsite or manufactured).
   a. pH between 5.0 and 7.0
   b. Must be certified clean in compliance with NYS DER-10 section 5.4(e). Certification must be received and approved by the ENGINEER prior to delivery of fill materials to the Site. If certification cannot be obtained from the supplier, analytical samples shall be collected and analyzed in accordance with NYS DER-10 section 5.4(e).
   c. Material shall be locally derived from sources within NYSDOT Regions 4 or 5.
   d. Organic content shall be not less than 15% or more than 20% dry weight basis and be comprised of leaf or well rotted manure compost meeting the requirements of NYSDOT Standard Specifications 713-15.
   e. Gradation requirements:

<table>
<thead>
<tr>
<th>Sieve Size</th>
<th>Percent Finer</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. 16</td>
<td>100</td>
</tr>
<tr>
<td>No. 40</td>
<td>85 – 100</td>
</tr>
<tr>
<td>No. 60</td>
<td>40 – 100</td>
</tr>
<tr>
<td>No. 200</td>
<td>5 – 10</td>
</tr>
</tbody>
</table>

2. Amend if required to achieve these specifications.
   a. Amendments shall be suitable for their intended uses and locations.
   b. All amendments shall be approved by the DEPARTMENT and ENGINEER.

PART 3 - EXECUTION

3.1 TOLERANCES

A. Unless specified elsewhere in this section, surface elevations and the slopes of all fill surfaces shall conform to the contours specified on the Contract Drawings or as directed by the ENGINEER. Tolerances of the finished fill are as follows:
1. Surface Elevation: +0.25/-0.25 ft
2. Slope: +1.0/-1.0 %

B. Placed material not conforming to the specified tolerance limits shall be removed and replaced as directed by the ENGINEER at no additional cost to the DEPARTMENT.
3.2 SURVEY

A. Prepare and submit the following surveys prepared by a professional surveyor for each discrete area in which backfilling activities are occurring
   1. Survey of subgrade prior to backfilling activities
   2. Survey of Common Fill placement prior to backfilling with other products
   3. Survey of final grades upon completion of backfilling activities
   4. Survey of final grades at least 30 days after completion of backfilling activities

B. Elevations shall be confirmed immediately after installation and again at least thirty-days after installation to ensure settlement has not occurred that exceeds tolerances specified herein. CONTRACTOR shall correct any exceedances found at no additional cost to the DEPARTMENT.

3.3 STOCKPILING

A. Stockpile materials on site at locations in upland areas only within limits of disturbance.

B. Stockpile materials separately or with dividers to prevent mixing. Prevent intermixing of soil types.

C. Direct surface water away from stockpile site to prevent erosion and deterioration of materials.

D. As soon as possible, remove stockpiles and leave area in a clean and neat condition. Grade surface to prevent free standing water.

3.4 EXAMINATION

A. Verify substrate base has been contoured and compacted.

3.5 PREPARATION

A. Protect existing structures, fences, utilities, and paving. Protect installed Work.

B. Dewater areas for backfilling in accordance with Section XI Supplementary Specifications: Section 31 23 19 – Excavation Dewatering as necessary to prevent release of suspended sediment downstream. Adhere to the requirements in Section XI Supplementary Specifications: Section 35 60 00 – Temporary Water Diversion and Flood Contingency Planning. Treat any captured water in accordance with Section XI Supplementary Specifications: Section 02 72 00 – Water Treatment and the SPDES Equivalency Permit.

3.6 SUBGRADE PREPARATION

A. Eliminate uneven areas and low spots.

B. Remove debris, roots, branches, stones, in excess of 1 inch in size.
C. Scarify surface to depth of 3 inches where topsoil is scheduled. Scarify in areas where equipment used for hauling and spreading topsoil has compacted subsoil.

D. Do not backfill over porous, wet, frozen, or spongy subgrade surfaces.

3.7 GENERAL BACKFILLING

A. All soils, both imported and materials originating onsite, are subject to the pre-construction and construction testing paragraphs within this section.

B. Common Fill

1. In certain areas, surplus clean materials from this project and the Gulf Interceptor Relocation Project will be buried within areas designated as Common Fill. Coordinate with the ENGINEER to determine quantity and location of these materials. Areas where these materials may be placed include deeper areas of fill within the floodplains. Example of these materials include broken rock from trenching activities. CONTRACTOR may propose use of other recycled clean materials instead of Common Fill in these areas, subject to approval by DEPARTMENT and ENGINEER.

2. Contractor shall excavate to the grades required for backfill as indicated in these specifications in accordance with Section XI Supplementary Specifications: Section 31 23 16 – Excavation.

3. Proof roll subgrade/subbase surface to identify soft spots. Remove and replace unstable material with satisfactory materials. Compact material as required in this paragraph.

4. Scarify the surface to a depth of 3 inches. Plow, step, bench, or break up sloped surfaces steeper than 1 vertical to 4 horizontal so that fill material will bond with existing material.

5. Do no place material on surfaces that are muddy, frozen, or that contains frost.

6. The ENGINEER shall approve the subgrade prior to the installation of Common Fill.

7. Place Common Fill in layers of a maximum 8 inch loose thickness, and compact it to 90 percent maximum density for cohesive soils and 95 percent maximum density for cohesionless soils. Compaction by water flooding or jetting is not permitted. Confirm compaction, see the Construction Testing paragraph of this Section.

8. Backfill material must within the range of -2 to +2 percent of optimum moisture content at the time of compaction.

9. Backfill to grades required to support other fill materials.

C. Placing Topsoil

1. Place Topsoil in the areas depicted in the Contract Drawings to a nominal depth of 6 inches. Place topsoil during dry weather.

2. Fine grade Topsoil to eliminate rough or low areas. Maintain profiles and contour of subgrade.

3. Remove roots, weeds, rocks, and foreign material while spreading.

4. Lightly compact placed topsoil.

5. Topsoil compacted by construction equipment shall be completely pulverized by tillage.

6. New surfaces shall be blended to existing areas and promote positive drainage.

7. Permanently stabilize Topsoil within 3 days to prevent erosion after installation. Install applicable seed mix and mulch in accordance with Section XI Supplementary Specifications: Section 32 92 19 – Seeding.
D. Placing Wetland Topsoil
1. Place Wetland Topsoil in the areas depicted in the Contract Drawings to a nominal depth of 6 inches. Place Wetland Topsoil during dry weather.
2. Fine grade Wetland Topsoil to eliminate rough or low areas. Maintain profiles and contour of subgrade.
3. Remove roots, weeds, rocks, and foreign material while spreading.
4. Lightly compact placed Wetland Topsoil.
5. Wetland Topsoil compacted by construction equipment shall be completely pulverized by tillage.
6. New surfaces shall be blended to existing areas and promote positive drainage.
7. Permanently stabilize Wetland Topsoil within 3 days to prevent erosion after installation.
   a. Install applicable seed mix Section XI Supplementary Specifications: Section 32 92 19 – Seeding.
   b. Install the Natural Erosion Control Blanket in accordance with Manufacturer’s Instructions.
      1) Install blanket parallel to the flow of water.
      2) Overlap adjacent blankets sufficiently for a common row of anchors.
         Upstream blanket shall overlap downstream blanket.
      3) Key blanket into surrounding grade and anchor below grade.

3.8 RIFFLE HABITAT FEATURES (AREA 1 AND AREA 2)
A. Fill with Common Fill to the proper subgrade as necessary for placement of Area 1 Riffle Stone.
B. Place Area 1 Riffle Stone to the lines, grades, and dimensions as depicted in the Contract Drawings. Place stones in an interlocking fashion.
C. Wash Common Fill into the riffle structure to minimize void space.
D. Install cross logs. Embed logs into bed and banks and place at the angles, locations, and embedment depths as depicted in the Contract Drawings.

3.9 CASCADE GRADE PROTECTION (AREA 1)
A. Fill with Common Fill to the proper subgrade as necessary for placement of Area 1 Cascade Mix.
B. Place Area 1 Cascade Stone to the lines, grades, and dimensions as depicted in the Contract Drawings. Slope the structure downstream. Install small depressions into the finished grade of the Area 1 Cascade Stone, ensuring the minimum thickness of 2 feet is maintained.
C. Wash or work Area 1 Riffle Stone into the Area 1 Cascade Stone to minimize void space in the mixture.

3.10 PLUNGE POOLS (AREA 1 AND AREA 2)
A. Fill with Common Fill to the proper subgrade as necessary for installation of Plunge Pools.
B. Install the Stabilization Geotextile beneath areas to receive stone in accordance with Section XI Supplementary Specifications: Section 31 05 19 – Geotextiles. Key geotextile into surrounding grade.

C. Place Light Stone Fill to the to the lines, grades, and dimensions as depicted in the Contract Drawings, and to allow for installation of Weir stones. Choke Light Stone Fill with #1 Crushed Stone or Gravel to fill void spaces.

D. Ensure subgrade beneath Weir Stones is stable, firm, and able to adequately support the weir stones.

E. Place Weir Stones to the lines, grades, and dimensions as depicted in the Contract Drawings. Minimize space between stones. Ensure different rows of Weir Stones are offset so that the spaces between individual Weir Stones do not align. Use Light Stone Fill to fill voids between the Weir Stones.

F. Install the Fine Stone Fill apron ramping down from the top of the downstream weir to stream grades at a 3H:1V slope. Choke the Fine Stone Fill with #1 Crushed Stone or Gravel to fill void spaces.

3.11 CONSTRUCTION TESTING

A. Field density measurements shall be performed by an independent testing laboratory hired by CONTRACTOR by Nuclear Methods (ASTM D6938). Field density tests shall be completed each the Common Fill layer at a frequency of 1 test per 20,000 square feet per lift.

B. Notify ENGINEER at least 24 hours prior to performing compaction testing.

3.12 EXCESS MATERIAL DISPOAL

A. CONTRACTOR shall dispose of excess material and material not suitable for use onsite at an appropriate offsite disposal facility at no additional cost to the DEPARTMENT.

3.13 PROTECTION OF INSTALLED WORK

A. Prohibit construction traffic over topsoil.

B. CONTRACTOR shall be responsible for maintaining installed materials and preventing their damage.

C. In the event of damage to prior work, CONTRACTOR shall immediately make repairs and replacements necessary to the satisfaction of the DEPARTMENT, at no additional cost to the DEPARTMENT.

END OF SECTION 31 23 23
SECTION 31 23 24
GROUNDWATER UNDERDRAIN

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes Work required to install the Groundwater Underdrain.

B. Related Requirements:

1. Section XI Supplementary Specifications:
   a. Section 31 05 19 – Geotextiles
   b. Section 31 23 16 – Excavation
   c. Section 31 23 26 – Barrier Protection Layer
   d. Section 31 32 00 – Sediment Processing
   e. Section 31 37 16 – Buttress

1.2 REFERENCE STANDARDS

A. New York State Department of Transportation
   1. NYSDOT Standard Specifications

1.3 DEFINITIONS

A. Unsatisfactory Soils

1. See Section XI Supplementary Specifications: Section 31 23 16 – Excavation

1.4 COORDINATION

A. Coordinate Work of this Section with OU-2 Sediment excavation, Containment Cell Subgrade excavation, Buttress installation, and Amended Fill placement.

1.5 PREINSTALLATION MEETINGS

A. Convene minimum one week prior to commencing Work of this Section.

1.6 SUBMITTALS

A. Action Submittals. Submit at least 20 days prior to product delivery to site and any Work associated with products.

   1. Product Data
B. Informational Submittals. Submit at least 20 days prior to product delivery to site and any Work associated with products.
   1. Material Source: Submit name of commercial material suppliers.
   2. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

C. Action Submittals. Submit at least 5 days prior to product delivery to Site.
   1. Preconstruction Testing Results documenting compliance with Part 1.7 and Part 2 requirements of this Section and NYSDEC DER-10/6 NYCRR Part 375 requirements.

D. Informational Submittals. Surveys.
   1. Survey of subgrade prior to installation. Submit prior to placement of geotextile or performing any backfilling activities.
   2. Survey of final grades at top of Underdrain Stone. Submit within 10 days of completion of Underdrain Stone placement.

1.7 PRECONSTRUCTION TESTING

A. Underdrain Stone
   1. CONTRACTOR shall provide a minimum 1 grain-size analysis (NYSDOT GTM-20) and 1 magnesium sulfate soundness test (NYSDOT GTM-21) per 500 cubic yards of material performed for each source of Underdrain Stone prior to transportation to the site.

B. All imported materials must be sampled and tested in accordance with the requirements and frequencies required by NYSDEC DER-10 and 6 NYCRR Part 375. Levels of contamination must not exceed the lower of the groundwater and residential use levels as shown in Appendix 5 of DER-10.

C. The DEPARTMENT and ENGINEER reserve the right to request additional tests, and more frequent testing, when there is a change in the material (source or physical properties) in the material being delivered to the Site or when materials do not comply with the requirement specified herein at no additional cost to the DEPARTMENT.

1.8 ENVIRONMENTAL REQUIREMENTS

A. Do not install fill materials in wind in excess of 10 mph or during inclement weather including rain and snow. Do not install fill materials when frozen. Do not install fill materials over subgrade that is muddy, frozen, or contains frost.

B. Earthwork activities shall be suspended when satisfactory results cannot be obtained because of rain, freezing temperatures, moisture content, or other unsatisfactory conditions in the field.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Underdrain Stone:
   1. See Section XI Supplementary Specifications: Section 31 37 16 – Buttress.
B. Underdrain Geotextile

1. See Section XI Supplementary Specifications: Section 31 05 19 – Geotextiles.

PART 3 - EXECUTION

3.1 TOLERANCES

A. Surface elevations and layer thickness of the Groundwater Underdrain shall conform to the elevations and thicknesses specified in the Contract Drawings with the following tolerances:

1. Surface Elevation: +0.5/-0.0 ft
2. Layer Thickness: +0.5/-0.0 ft

B. Placed material not conforming to the specified tolerance limits shall be removed and replaced as directed by the ENGINEER at no additional cost to the DEPARTMENT.

3.2 SURVEY

A. Prepare and submit the following surveys prepared by a professional surveyor for each discrete area in which backfilling activities are occurring
   1. Survey of subgrade prior to backfilling activities or placement of geotextile
   2. Survey of Underdrain Stone placement

B. Elevations shall be confirmed immediately after installation. CONTRACTOR shall correct any exceedances of the tolerances found at no additional cost to the DEPARTMENT.

3.3 SUBGRADE PREPARATION

A. Excavate OU-2 Sediment in accordance with Section XI Supplementary Specifications: Section 31 23 16 – Excavation.

B. Install Buttress in accordance with Section XI Supplementary Specifications: Section 31 37 16 – Buttress

C. Prepare subgrade in accordance with Section XI Supplementary Specifications: Section 31 23 16 – Excavation.

D. If Unsatisfactory Soils are present upon approval, remove and replace in accordance with the paragraph titled “Specific Procedures for Excavation of Unsatisfactory Soils Beyond Other Excavation Limits” in Section XI Supplementary Specifications: Section 31 23 16 – Excavation.

E. Subgrade surfaces shall be approved by ENGINEER prior to subsequent installation of geotextiles or filling activities. Subgrade shall not be frozen.
3.4 GROUNDWATER UNDERDRAIN INSTALLATION

A. Install Underdrain Geotextile on bottom and side slopes within the footprint of the Groundwater Underdrain in accordance with Section XI Supplementary Specifications: Section 31 05 19 – Geotextiles. Ensure adjacent geotextile panels overlap by a minimum of 12 inches. Geotextile shall be extended beyond horizontal limits of the Groundwater Underdrain by a minimum of 5 feet. Fully overlap the excess Underdrain Geotextile installed in accordance with Section XI Supplementary Specifications: Section 31 37 16 – Buttress.

B. Place Underdrain Stone along edges of the Underdrain Geotextile panels to hold the geotextile in place.

C. Place and compact Underdrain Stone in 12-inch layers to the horizontal and vertical limits depicted in the Contract Drawings. Compact each lift with four passes of a vibrating pad or drum type compactor. Adhere to the ground pressure, vehicle speed, spotter, and other requirements for placement of materials over geotextiles outlined in Section XI Supplementary Specifications: Section 31 05 19 – Geotextiles.

D. Install Underdrain Geotextile over top Underdrain Stone in accordance with Section XI Supplementary Specifications: Section 31 05 19 – Geotextiles. Ensure upper geotextile overlaps with previously installed geotextile around edges of Groundwater Underdrain by at least 3 feet. Adhere to the ground pressure requirements outlined in Section XI Supplementary Specifications: Section 31 05 19 – Geotextiles for equipment use over geotextiles.

E. Install Barrier Protection Layer on the upstream (south) face of Buttress in accordance with Section XI Supplementary Specifications: Section 31 23 26 – Barrier Protection Layer.

F. Place Amended Sediment over top of approved Groundwater Underdrain in accordance with Section XI Supplementary Specifications: Section 31 32 00 – Sediment Processing.

3.5 DAMAGED WOVEN GEOEXTILE

A. Repair torn or damaged Woven Geotextile in accordance with Section XI Supplementary Specifications: Section 31 05 19 – Geotextiles.

3.6 EXCESS MATERIAL DISPOAL

A. CONTRACTOR shall dispose of excess material and material not suitable for use onsite at an appropriate offsite disposal facility at no additional cost to the DEPARTMENT.

3.7 PROTECTION OF INSTALLED WORK

A. CONTRACTOR shall be responsible for maintaining installed materials and preventing their damage.

B. In the event of damage to prior work, CONTRACTOR shall immediately make repairs and replacements necessary to the satisfaction of the DEPARTMENT, at no additional cost to the DEPARTMENT.
END OF SECTION 31 23 24
PART 1 - GENERAL

1.1 SUMMARY

A. Section includes the furnishing of all materials, tools, supervision, equipment, and labor necessary for the Sand Gas Venting Layer component of the Containment Cell Cap, including but not limited to: transportation, handling, placement, testing, removal of unsuitable materials, protection of installed materials, and all work incidental to the proper installation of the Sand Gas Venting Layer, as specified herein and as indicated on the Contract Drawings.

1. This Section does not apply to the Geocomposite Gas Venting Layer required at the Lockport City Landfill Sediment Cell. See Section XI Supplementary Specifications: Section 31 05 22 – Geocomposites.

B. Related Requirements:

1. Section X Standard Specifications:
   a. Section 01 73 00 – Field Engineering

2. Section XI Supplementary Specifications:
   a. Section 31 05 20 – Geosynthetic Clay Liner
   b. Section 31 05 20 – Geocomposites
   c. Section 31 23 16 – Excavation
   d. Section 31 32 00 – Sediment Processing

1.2 REFERENCE STANDARDS

A. ASTM International:


2. ASTM D2434 – Standard Test Method for Permeability of Granular Soils (Constant Head)

3. ASTM D2487 – Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System)


5. ASTM D5321 – Standard Test Method for Determining the Shear Strength of Soil-Geosynthetic and Geosynthetic-Geosynthetic Interfaces by Direct Shear

1.3 DEFINITIONS

A. Amended Fill

1. See Section XI Supplementary Specifications: Section 31 32 00 – Sediment Processing

B. Unsatisfactory Soils
1. See Section XI Supplementary Specifications: Section 31 23 16 – Excavation

1.4 COORDINATION
A. Coordinate Work of this Section with Amended Fill placement, GCL installation, and Geomembrane installation.

1.5 PREINSTALLATION MEETINGS
A. Convene minimum one week prior to commencing Work of this Section.

1.6 SUBMITTALS
A. Action Submittals. Submit at least 20 days prior to product delivery to site and any Work associated with products.
   1. Product Data

B. Informational Submittals. Submit at least 20 days prior to product delivery to site and any Work associated with products.
   1. Material Source: Submit name of commercial material suppliers.
   2. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

C. Action Submittals. Submit at least 5 days prior to product delivery to Site.
   1. Preconstruction Testing Results documenting compliance with Part 1.7 and Part 2 requirements of this Section and NYSDEC DER-10/6 NYCRR Part 375 requirements.

D. Action Submittals. Submit within 12 hours of receipt from geotechnical laboratory.
   1. Construction Testing Results.

E. Informational Submittals. Surveys.

F. Closeout Submittals. Record Drawings.
   1. Record Drawing of Sand Gas Venting Layer installation. Submit within 20 days of Sand Gas Venting Layer installation completion.

1.7 PRECONSTRUCTION TESTING
A. CONTRACTOR shall retain the services of a qualified geotechnical laboratory to conduct pre-construction tests on samples of the Sand Gas Venting Layer materials.

B. CONTRACTOR shall perform a minimum of 1 classification of soils for engineering purposes (ASTM D2487) which includes a grain size analysis, 1 direct shear test (ASTM D3080), and 1 permeability test (ASTM D2434) on a representative sample of each source of material.
C. Interface Shear Tests
   1. CONTRACTOR shall conduct testing of interface shear tests between the following interfaces:
      a. Sand Gas Venting Layer and GCL
   2. See Section XI Supplementary Specifications: Sections 31 05 20 – Geosynthetic Clay Liner and 31 05 21 – Geomembrane Barrier for interface shear testing requirements.

D. Imported materials must be sampled and tested in accordance with the requirements and frequencies required by NYSDEC DER-10 and 6 NYCRR Part 375. Levels of contamination must not exceed the lower of the groundwater and residential use levels as shown in Appendix 5 of DER-10.

E. The DEPARTMENT and ENGINEER reserve the right to request additional tests, and more frequent testing, when there is a change in the material (source or physical properties) in the material being delivered to the Site or when materials do not comply with the requirement specified herein at no additional cost to the DEPARTMENT.

1.8 ENVIRONMENTAL REQUIREMENTS

A. Do not install fill materials in wind in excess of 10 mph or during inclement weather including rain and snow. Do not install fill materials when frozen. Do not install fill materials over subgrade that is muddy, frozen, or contains frost.

B. Earthwork activities shall be suspended when satisfactory results cannot be obtained because of rain, freezing temperatures, moisture content, or other unsatisfactory conditions in the field.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Sand Gas Venting Layer material:
   1. The Sand Gas Venting Layer material shall be clean and free of contamination, debris, or other unsuitable objects. Material shall be substantially free of particles over ½ inch in diameter.
   2. Material shall be locally derived from sources within NYSDOT Regions 4 or 5.
   3. Material shall be a sandy soil classified as SP or SW by ASTM D2487.
   4. A maximum of 10 percent of material shall be finer than the #200 sieve as determined by ASTM D422.
   5. Shall have a minimum permeability of 0.006 cm/s by ASTM D2434.
   6. The material shall have the following minimum secant friction angle when compacted at 87.5 percent of the maximum dry density at optimum moisture content: ≥27 degrees (peak).
7. The material shall meet the minimum interface secant friction angles specified in Section XI Supplementary Specifications: Sections 31 05 20 – Geosynthetic Clay Liner and 31 05 21 – Geomembrane Barrier.

8. The Sand Gas Venting Layer material shall be clean and free of contamination in accordance with NYS DER-10 section 5.4(e).

9. Prior to construction, the CONTRACTOR shall submit samples to the ENGINEER so that third party testing can be conducted to assure specification requirements are satisfied.

10. Installed thickness of Sand Gas Venting Layer shall be 12 inches.

PART 3 - EXECUTION

3.1 GENERAL

A. Sand Gas Venting Layer Work shall result in a surface suitable for the installation of the overlying containment cell cap system. Minor adjustments of the final grades of the Sand Gas Vent Layer may be necessary in some areas to ensure a positive slope for drainage. CONTRACTOR shall review existing conditions with ENGINEER prior to start of work.

3.2 TOLERANCES

A. Layer thickness of the Sand Gas Venting Layer shall conform to the thickness specified herein with the following tolerances:

1. Layer Thickness: +2.0/-0.0 inches

B. Placed material not conforming to the specified tolerance limits shall be removed and replaced as directed by the ENGINEER at no additional cost to the DEPARTMENT.

3.3 PREPARATION

A. Place Amended Fill in accordance with Section XI Supplementary Specifications: Section 31 32 00 – Sediment Processing.

B. The subgrade of the Sand Gas Venting Layer shall be relatively smooth, firm, and free from obstructions or voids that would affect proper placement of the Sand Gas Venting Layer material. Subgrade shall be approved by the ENGINEER prior to placement of the Sand Gas Venting Layer material.

C. Do not proceed with installation over spongy or frozen materials. Remove and replace Unsatisfactory Soils prior to proceeding with Work.
3.4 SAND GAS VENTING LAYER INSTALLATION

A. The Sand Gas Venting Layer shall be installed to a minimum thickness of 12-inches in at least two lifts.

B. Compact each lift of the Sand Gas Venting Layer with four passes of a vibrating roller or vibrating plate compactor.

C. Grading of the Sand Gas Venting Layer shall be accomplished via grade stakes set to establish the thickness of the layer or with on-board GPS equipment. Grade stakes must be removed once the layer has been completed and before installation of the GCL. Grade all surfaces to achieve a uniform grade and consistent surface free of ruts, voids, rills, and soft spots.

D. The final surface of the Sand Gas Venting Layer shall be smooth, substantially free from equipment tire marks, holes, depressions more than 1-inch deep, or protrusions extending above the surface by more than 1 inch.

E. Phase cover construction such that the anchor trench excavation soils (see Section XI Supplementary Specifications: Section 31 05 20 – Geosynthetic Clay Liner) can be placed into the Containment Cell prior to completion of the Sand Gas Venting Layer.

F. Coordinate with the installation of the Gas Vents specified in Section XI Supplementary Specifications: Section 33 05 32 – Gas Vents.

3.5 CONSTRUCTION TESTING

A. CONTRACTOR shall retain the services of a qualified geotechnical laboratory to conduct construction tests on samples of the Sand Gas Venting Layer materials.

B. The CONTRACTOR shall conduct construction testing on the Sand Gas Venting Layer material as the materials are delivered to the site as follows:

1. Classification of Soils for Engineering Purposes (ASTM D2487) including a grain size analysis at a minimum frequency of 1 test per 2,500 cubic yards.
2. Direct shear test (ASTM D3080) and permeability (ASTM D2434) at a minimum frequency of 1 test per 5,000 cubic yards.

C. The CONTRACTOR shall notify the ENGINEER no less than 24 hours prior to collection of samples for construction testing.

D. The DEPARTMENT reserves the right to request additional tests, and more frequent testing, when there is a change in the material (source or physical properties) in the material being delivered to the Site or when materials do not comply with the requirement specified herein at no additional cost to the DEPARTMENT.

E. The CONTRACTOR will be required to perform a minimum of 5 test pits per acre to confirm adequate depth of the Sand Gas Venting Layer. Test pits shall be performed in the presence of the ENGINEER.
3.6 EXCESS MATERIAL DISPOSAL
   A. CONTRACTOR shall dispose of excess material and material not suitable for use onsite at an appropriate offsite disposal facility at no additional cost to the DEPARTMENT.

3.7 PROTECTION OF INSTALLED WORK
   A. CONTRACTOR shall be responsible for maintaining installed materials and preventing their damage.
   B. In the event of damage to prior work, CONTRACTOR shall immediately make repairs and replacements necessary to the satisfaction of the DEPARTMENT, at no additional cost to the DEPARTMENT.

3.8 SURVEYS AND RECORD DRAWINGS
   A. The CONTRACTOR shall submit for review and approval a survey topographic data file to the ENGINEER and DEPARTMENT of the subgrade prior to installation of the Sand Gas Venting Layer.
   B. The CONTRACTOR shall submit for review and approval an as-built survey topographic data file to the ENGINEER and DEPARTMENT within 24 hours after completion of installation of the Sand Gas Venting Layer in accordance with Section X Standard Specifications: Section 01 73 00 – Field Engineering. Installation of the GCL or Geomembrane shall not commence until the as-built information is approved by ENGINEER and DEPARTMENT.
   C. The CONTRACTOR shall submit a Record Drawing of the Sand Gas Venting Layer installation in accordance with Section X Standard Specifications: Section 01 73 00 – Field Engineering.

END OF SECTION 31 23 25
PART 1 - GENERAL

1.1 SUMMARY

A. Section includes Work required to install the Barrier Protection Layer.

B. Related Requirements:

1. Section X Standard Specifications:
   a. Section 01 73 00 – Field Engineering

2. Section XI Supplementary Specifications:
   a. Section 31 05 22 – Geocomposites
   b. Section 31 23 23 – Fill for Restoration
   c. Section 33 42 01 – Cap Appurtenances

1.2 REFERENCE STANDARDS

A. ASTM International:

2. ASTM D2434 – Standard Test Method for Permeability of Granular Soils (Constant Head)
3. ASTM D2487 – Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System)
5. ASTM D5321 – Standard Test Method for Determining the Shear Strength of Soil-Geosynthetic and Geosynthetic-Geosynthetic Interfaces by Direct Shear

1.3 COORDINATION

A. Coordinate Work of this Section with Geocomposite installation, Let-Down Channel installation, Stormwater Bench installation, and Topsoil installation.

1.4 PREINSTALLATION MEETINGS

A. Convene minimum one week prior to commencing Work of this Section.
1.5 SUBMITTALS

A. Action Submittals. Submit at least 20 days prior to product delivery to site and any Work associated with products.
   1. Product Data

B. Informational Submittals. Submit at least 20 days prior to product delivery to site and any Work associated with products.
   1. Material Source: Submit name of commercial material suppliers.
   2. Manufacturer’s Certificate: Certify that products meet or exceed specified requirements.

C. Action Submittals. Submit at least 5 days prior to product delivery to Site.
   1. Preconstruction Testing Results documenting compliance with Part 1.6 and Part 2 requirements of this Section and NYSDEC DER-10/6 NYCRR Part 375 requirements.

D. Action Submittals. Submit within 12 hours of receipt from geotechnical laboratory.
   1. Construction Testing Results.

E. Informational Submittals. Surveys.
   1. Survey of subgrade prior to installation. Submit prior to placement of Barrier Protection Layer.
   2. Survey of final grades of the Barrier Protection Layer. Submit within 24 hours of completion.

F. Closeout Submittals. Record Drawings.
   1. Record Drawing of Barrier Protection Layer installation. Submit within 20 days of installation completion.

1.6 PRECONSTRUCTION TESTING

A. CONTRACTOR shall retain the services of a qualified geotechnical laboratory to conduct pre-construction tests on samples of the Barrier Protection Layer materials.

B. CONTRACTOR shall perform a minimum of 1 classification of soils for engineering purposes (ASTM D2487) which includes a grain size analysis and 1 direct shear test (ASTM D3080) on a representative sample of each source of material.

C. Imported materials must be sampled and tested in accordance with the requirements and frequencies required by NYSDEC DER-10 and 6 NYCRR Part 375. Levels of contamination must not exceed the lower of the groundwater and residential use levels as shown in Appendix 5 of DER-10.

D. Interface Shear Tests
   1. CONTRACTOR shall conduct testing of interface shear tests between the following interfaces:
      a. Geocomposite and Barrier Protection Layer
   2. See Section XI Supplementary Specifications: Sections 31 05 22 – Geocomposites for interface shear testing requirements.
E. The DEPARTMENT and ENGINEER reserve the right to request additional tests, and more frequent testing, when there is a change in the material (source or physical properties) in the material being delivered to the Site or when materials do not comply with the requirement specified herein at no additional cost to the DEPARTMENT.

1.7 ENVIRONMENTAL REQUIREMENTS

A. Do not install fill materials in wind in excess of 10 mph or during inclement weather including rain and snow. Do not install fill materials when frozen. Do not install fill materials over subgrade that is muddy, frozen, or contains frost.

B. Earthwork activities shall be suspended when satisfactory results cannot be obtained because of rain, freezing temperatures, moisture content, or other unsatisfactory conditions in the field.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Barrier Protection Layer material:

1. The Barrier Protection Layer material shall be clean and free of contamination, debris, or other unsuitable objects. Material shall be substantially free of particles over 2 inch in diameter.

2. Material shall be locally derived from sources within NYSDOT Regions 4 or 5

3. Material shall be a sandy soil classified as SP, SW, SM, GW, or GP by ASTM D2487.

4. A maximum of 10 percent of material shall be finer than the #200 sieve as determined by ASTM D422.

5. A hydraulic conductivity between 3.0 x 10^{-4} and 1.0 x 10^{-3} centimeters per second as determined by ASTM D2434.

6. The material shall have the following minimum secant friction angle when compacted at 87.5 percent of the maximum dry density at optimum moisture content: \( \geq 27 \) degrees (peak).

7. The material shall meet the minimum interface secant friction angles specified in Section XI Supplementary Specifications: Section 31 05 22 – Geocomposites

8. Prior to construction, the CONTRACTOR shall submit samples to the ENGINEER so that third party testing can be conducted to assure specification requirements are satisfied.

9. The Barrier Protection Layer material shall be clean and free of contamination in accordance with NYS DER-10 section 5.4(e).

10. Installed thickness of Barrier Protection Layer shall be 18 inches.
a. At the Lockport City Landfill Sediment Cell (LCLSC), up to 6 inches of the Barrier Protection Layer may be composed of materials excavated from the Lockport City Landfill in preparation of the LCLSC subgrade.

B. Flat Panel Drainage Pipe
   1. Flat Panel Drainage Pipe shall be AdvanEDGE 12” HDPE Flat Panel Drainage Pipe with geotextile wrap or equal.

PART 3 - EXECUTION

3.1 TOLERANCES
   A. Layer thickness of the Barrier Protection Layer shall conform to the thickness specified herein with the following tolerances:
      1. Layer Thickness: +2.0/-0.0 inches
   B. Placed material not conforming to the specified tolerance limits shall be removed and replaced as directed by the ENGINEER at no additional cost to the DEPARTMENT.

3.2 PREPARATION
   A. Install Geocomposite in accordance with Section XI Supplementary Specifications: Section 31 05 22 – Geocomposites.
   B. The surface of the Geocomposite shall be free of wastes, loose soil, stones, rocks, sharp objects, or debris of any kind which may damage the Geocomposite or underlying Geomembrane during placement of the Barrier Protection Layer.
   C. All Geocomposite testing shall be completed and approved prior to placing the Barrier Protection Layer.

3.3 BARRIER PROTECTION LAYER INSTALLATION
   A. The Barrier Protection Layer shall be installed to a minimum thickness of 18-inches after compaction.
   B. Barrier Protection Layer material shall be spread directly on top of the Geocomposite surface.
   C. Placement of the Barrier Protection Layer shall be completed using low ground pressure (LGP) equipment. The equipment shall operate only over previously placed Barrier Layer Protection materials. Equipment shall not operate directly on the Geocomposite. The equipment shall not exert ground pressures exceeding the following:

<table>
<thead>
<tr>
<th>Maximum Allowable Equipment Ground Pressure (psi)</th>
<th>Minimum Thickness of Amended Sediment Above Geotextile (inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tbody>
</table>

BARRIER PROTECTION LAYER
JUNE 2022
1. Vehicle speeds and turning shall be minimized to the satisfaction of the ENGINEER to avoid rutting, bouncing, and other stresses on underlying geosynthetics. Spreading of Barrier Protection Layer materials shall be done so as to avoid stretching, wrinkling, or creasing of the underlying geosynthetics.

2. CONTRACTOR shall post one spotter at each piece of equipment spreading Barrier Protection Layer materials over geosynthetics at all times of active material spreading. At a minimum, the spotter shall walk out wrinkles, inspect for unacceptable objects in the material, and ensure lifts of adequate depth.

3. At no times should rutting occur in placed Barrier Protection Layer materials. Should rutting occur, CONTRACTOR shall cease operations and investigate cause. Any ruts greater than 2-inches in depth shall be repaired prior to placement of topsoil.

D. Place the Barrier Protection layer in at least two lifts. Compact each lift with four passes of an approved vibratory plate compactor or vibratory roller.

E. Install the Flat Panel Drainage Pipe at the locations depicted in the Contract Drawings. Construct a trough with Stabilization Geotextile as depicted in the Contract Drawings. Terminate upgradient Geocomposite in trough and install the Flat Panel Drainage Pipe within trough. Daylight Flat Panel Drainage Pipe into let-down channels. Protect underlying Geomembrane. Repair any damage to Geomembrane or Geocomposite.

F. Grading of the Barrier Protection Layer shall be accomplished with on-board GPS equipment. Grade all surfaces to achieve a uniform grade and consistent surface free of ruts, voids, rills, and soft spots.

G. Install topsoil, stormwater features and other cap appurtenances, and gas vents in accordance with Section XI Supplementary Specifications: Sections 31 23 23 – Fill for Restoration, 33 05 32 – Gas Vents, and 33 42 01 – Cap Appurtenances.

3.4 CONSTRUCTION TESTING

A. CONTRACTOR shall retain the services of a qualified geotechnical laboratory to conduct construction tests on samples of the Barrier Protection Layer materials.

B. The CONTRACTOR shall conduct construction testing on the Barrier Protection Layer material as the materials are delivered to the site as follows:

1. Classification of Soils for Engineering Purposes (ASTM D2487) including a grain size analysis at a minimum frequency of 1 test per 3,000 cubic yards.

2. Permeability test (ASTM D2434) at a minimum frequency of 1 test per 3,000 cubic yards.

C. The CONTRACTOR shall notify the ENGINEER no less than 24 hours prior to collection of samples for construction testing.
D. The DEPARTMENT reserves the right to request additional tests, and more frequent testing, when there is a change in the material (source or physical properties) being delivered to the Site or when materials do not comply with the requirement specified herein at no additional cost to the DEPARTMENT.

3.5 EXCESS MATERIAL DISPOSAL

A. CONTRACTOR shall dispose of excess material and material not suitable for use onsite at an appropriate offsite disposal facility at no additional cost to the DEPARTMENT.

3.6 PROTECTION OF INSTALLED WORK

A. CONTRACTOR shall be responsible for maintaining installed materials and preventing their damage.

B. In the event of damage to prior work, CONTRACTOR shall immediately make repairs and replacements necessary to the satisfaction of the DEPARTMENT, at no additional cost to the DEPARTMENT.

3.7 SURVEYS AND RECORD DRAWINGS

A. The CONTRACTOR shall submit for review and approval a survey topographic data file to the ENGINEER and DEPARTMENT of the subgrade prior to installation of the Barrier Protection Layer.

B. The CONTRACTOR shall submit for review and approval an as-built survey topographic data file to the ENGINEER and DEPARTMENT within 24 hours after completion of installation of the Barrier Protection Layer in accordance with Section X Standard Specifications: Section 01 73 00 – Field Engineering. Installation of topsoil or other cap appurtenances shall not commence until the as-built information is approved by ENGINEER and DEPARTMENT.

C. The CONTRACTOR shall submit a Record Drawing of the Barrier Protection Layer installation in accordance with Section X Standard Specifications: Section 01 73 00 – Field Engineering.

END OF SECTION 31 23 26
SECTION 31 23 27
CLEAN SOIL CAP

PART 1 - GENERAL

1.1 SUMMARY

A. The section specifies the requirements for installation fill materials and procedures for installation of the Clean Soil Cap in Area 3. This section is to be used with the requirements contained in all other sections, including the related sections listed below. The CONTRACTOR shall provide all labor, materials, equipment, and incidentals to complete the work specified in this section.

B. Related Requirements:
   1. Section X Standard Specifications:
      a. Section 01 73 00 – Field Engineering
   2. Section XI Supplementary Specifications:
      a. Section 02 80 01 – Decontamination
      b. Section 02 81 00 – Off-site Transportation and Disposal
      c. Section 31 05 19 – Geotextiles
      d. Section 31 11 00 – Clearing and Grubbing
      e. Section 32 92 19 – Seeding

1.2 REFERENCE STANDARDS

A. ASTM International:
   1. ASTM D698 – Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12400 ft-lbf/ft³)
   2. ASTM D2487 – Standard Practice for Classification of Soils for Engineering Purposes (USCS)
   3. ASTM D2974 – Standard Test Methods for Determining Water (Moisture) Content, Ash Content, and Organic Material of Peat or Other Organic Soils
   4. ASTM D4972 – Standard Test Methods of pH of Soils
   5. ASTM D6938 – Standard Test Methods for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)

B. New York State Department of Transportation
   1. NYSDOT Standard Specifications
1.3 DEFINITIONS

A. Subgrade
   1. Subgrade shall be considered as the native or improved soil surface on which a subsequent layer or layers of soil materials, concrete, pavement, or structures is to be placed. Shall be approved by the Engineer prior to placement of subsequent materials or structures.

1.4 SUBMITTALS

A. Action Submittals. Submit at least 20 days prior to product delivery to site and any Work associated with products.
   1. Product Data

B. Informational Submittals. Submit at least 20 days prior to product delivery to site and any Work associated with products.
   1. Material Source: Submit name of commercial material suppliers.
   2. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

C. Action Submittals. Submit at least 5 days prior to product delivery to Site.
   1. Preconstruction Testing Results documenting compliance with Part 1.5 and Part 2 requirements of this Section and NYSDEC DER-10/6 NYCRR Part 375 requirements.

D. Action Submittals. Submit within 12 hours of test completion.
   1. Common Fill Construction Testing Results documenting compliance with compaction requirements.

E. Informational Submittals. Surveys.
   1. As-Built Survey of subgrade prior to backfilling. Submit prior to performing any backfilling activities.
   2. As-Built Survey of Common Fill placement prior to backfilling with other products. Submit prior to backfilling with other products.
   3. As-Built Survey of final grades. Submit within 10 days of completion of backfilling activities.

F. Closeout Submittals. Record Drawings.
   1. Record Drawing of Clean Soil Cap installation. Submit within 20 days of installation completion.

1.5 PRECONSTRUCTION TESTING

A. CONTRACTOR shall retain the services of a qualified geotechnical laboratory to conduct pre-construction tests on samples of each fill material.

B. Complete the following preconstruction testing for each source of the following materials. Theses tests are required specifically for the material to be used for the Clean Soil Cap. Testing of the same or similar material for use in other areas of the Site is not permitted.
   1. Common Fill
      a. One Classification of Soils for Engineering Purposes ASTM D2487
b. One Standard Proctor ASTM D698

2. Topsoil
   a. One Classification of Soils for Engineering Purposes ASTM D2487
   b. One pH ASTM D4972
   c. One organic content ASTM D2974
   d. One test to ascertain percentage of nitrogen, phosphorus, potash, and soluble salt

C. Imported materials must be sampled and tested in accordance with the requirements and frequencies required by NYSDEC DER-10 and 6 NYCRR Part 375. Levels of contamination must not exceed the lower of the groundwater and residential use levels as shown in Appendix 5 of DER-10.

D. The DEPARTMENT and ENGINEER reserve the right to request additional tests, and more frequent testing, by CONTRACTOR when there is a change (i.e. source or physical properties) in the material being delivered to the site or when materials do not comply with the specifications at no additional cost to the DEPARTMENT.

1.6 ENVIRONMENTAL REQUIREMENTS

A. Do not install fill materials in wind in excess of 10 mph or during inclement weather including rain and snow. Do not install fill materials when frozen. Do not install fill materials over subgrade that is muddy, frozen, or contains frost.

B. Earthwork activities shall be suspended when satisfactory results cannot be obtained because of rain, freezing temperatures, moisture content, or other unsatisfactory conditions in the field.

PART 2 - PRODUCTS

2.1 FILL MATERIALS

A. Common Fill:
   1. Classified by ASTM D2487 as GW, GP, GM, GP-GM, GW-GM, GC, GP-GC, GM-GC, SW, and SP. These materials have a unit weight of at least 95 lbs/CF and are free of rocks, stones, and foreign material larger than 3 inches.
   2. Material shall be locally derived from sources within NYSDOT Regions 4 or 5.
   3. Must be certified clean in compliance with NYS DER-10 section 5.4(e). Certification must be received and approved by the ENGINEER prior to delivery of fill materials to the Site. If certification cannot be obtained from the supplier, analytical samples shall be collected and analyzed in accordance with NYS DER-10 section 5.4(e).

B. Stabilization Geotextile
   1. See Section XI Supplementary Specifications: Section 31 05 19 – Geotextiles.

C. Topsoil:
   1. Must meet requirements of NYSDOT Standard Specifications 713-01 Topsoil Special Planting Mix.
      a. pH between 5.5 and 7.0
b. Must be certified clean in compliance with NYS DER-10 section 5.4(e). Certification must be received and approved by the ENGINEER prior to delivery of fill materials to the Site. If certification cannot be obtained from the supplier, analytical samples shall be collected and analyzed in accordance with NYS DER-10 section 5.4(e).

c. Material shall be locally derived from sources within NYSDOT Regions 4 or 5.

d. Organic content shall be not less than 10% or more than 15% dry weight basis and be comprised of leaf or well rotted manure compost meeting the requirements of NYSDOT Standard Specifications 713-15.

e. Gradation requirements:

<table>
<thead>
<tr>
<th>Sieve Size</th>
<th>Percent Finer</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 inch</td>
<td>100</td>
</tr>
<tr>
<td>1 inch</td>
<td>85 – 100</td>
</tr>
<tr>
<td>¼ inch</td>
<td>65 – 100</td>
</tr>
<tr>
<td>No. 200</td>
<td>20 – 40</td>
</tr>
<tr>
<td>2 micron</td>
<td>5 – 35</td>
</tr>
</tbody>
</table>

PART 3 - EXECUTION

3.1 TOLERANCES

A. Unless specified elsewhere in this section, surface elevations and the slopes of all fill surfaces shall conform to the contours specified on the Contract Drawings or as directed by the ENGINEER. Tolerances of the finished structure are as follows:

1. Surface Elevation: +0.1/-0.1 ft
2. Slope: +0.1/-0.1 %

B. Placed material not conforming to the specified tolerance limits shall be removed and replaced as directed by the ENGINEER at no additional cost to the DEPARTMENT.

3.2 GENERAL

A. Protect existing structures, fences, utilities, and paving. Protect installed Work.

3.3 STOCKPILING

A. Stockpile materials on site at locations in upland areas only within limits of disturbance.

B. Stockpile materials separately or with dividers to prevent mixing. Prevent intermixing of soil types.

C. Direct surface water away from stockpile site to prevent erosion and deterioration of materials.

D. As soon as possible, remove stockpiles and leave area in a clean and neat condition. Grade surface to prevent free standing water.
3.4 SURVEY AND RECORD DRAWINGS

A. Prepare and submit the following surveys prepared by a professional surveyor
   1. Survey of subgrade prior to placement of the geotextile
   2. Survey of Common Fill placement prior to Topsoil placement
   3. Survey of final grades upon completion of backfilling activities

B. Elevations shall be confirmed immediately after installation. CONTRACTOR shall correct any exceedances found at no additional cost to the DEPARTMENT.

C. The CONTRACTOR shall submit a Record Drawing of the Clean Soil Cap installation in accordance with Section X Standard Specifications: Section 01 73 00 – Field Engineering.

3.5 PREPARATION FOR CLEAN SOIL CAP INSTALLATION

A. Protect aboveground and underground utilities during Work.

B. Perform Clearing of OU-3 in accordance with Section XI Supplementary Specifications: Section 31 11 00 – Clearing and Grubbing.

C. Locate and raise the existing stormwater manhole structure to proposed final grades and install a catch basin grate.

D. Remove Debris (both surficial and uncovered during grading operations) and transport to OU-1 (Area 1) in accordance with Section XI Supplementary Specifications: Section 02 81 00 – Offsite Transportation and Disposal.

E. Grade surface of OU-3 to a gently sloped surface providing drainage approximately in the same directions as existing conditions. Lower high points and raise low points by spreading soil from high points to low points. Blend slopes in to level areas. Make grade changes gradual.

F. Adhere to decontamination procedures in accordance with Section XI Supplementary Specifications: Section 02 80 01 – Decontamination.

3.6 CLEAN SOIL CAP INSTALLATION

A. The subgrade shall be free of wastes, loose soil, stones, rocks, sharp objects, or debris of any kind which may damage the Stabilization Geotextile. Proof roll subgrade surface to identify soft spots.

B. Do not place material on surfaces that are muddy, frozen, or that contains frost. The ENGINEER shall approve the subgrade prior to placement of the Stabilization Geotextile.

C. Install Stabilization Geotextile along entire footprint of the Clean Soil Cap in accordance with Section XI Supplementary Specifications: Section 31 05 19.

D. Install Common Fill across footprint of the Clean Soil Cap as depicted in the Contract Drawings to a minimum compacted thickness of 6 inches.
   1. Place Common Fill in a single layer to achieve a minimum 6-inch compacted layer thickness.
2. Compact the fill to 90 percent maximum density for cohesive soils and 95 percent maximum density for cohesionless soils. Compaction by water flooding or jetting is not permitted. Confirm compaction, see the Construction Testing paragraph of this Section.
3. Backfill material must within the range of -2 to +2 percent of optimum moisture content at the time of compaction.
4. Backfill to grades required to support other fill materials.

E. Placing Topsoil
1. Place Topsoil in the areas depicted in the Contract Drawings to a minimum depth of 6 inches. Place topsoil during dry weather.
2. Fine grade Topsoil to eliminate rough or low areas. Maintain profiles and contour of subgrade.
3. Remove roots, weeds, rocks, and foreign material while spreading.
4. Lightly compact placed topsoil.
5. Topsoil compacted by construction equipment shall be completely pulverized by tillage.
6. New surfaces shall be blended to existing areas and promote positive drainage.
7. Permanently stabilize Topsoil within 3 days to prevent erosion after installation. Install applicable seed mix and mulch in accordance with Section XI Supplementary Specifications: Section 32 92 19 – Seeding.

3.7 CONSTRUCTION TESTING
A. Field density measurements shall be performed by an independent testing laboratory hired by CONTRACTOR by Nuclear Methods (ASTM D6938). Field density tests shall be completed on the Common Fill layer at a frequency of 1 test per 10,000 square feet.
B. Notify ENGINEER at least 24 hours prior to performing compacting testing.

3.8 EXCESS MATERIAL DISPOAL
A. CONTRACTOR shall dispose of excess material and material not suitable for use onsite at an appropriate offsite disposal facility at no additional cost to the DEPARTMENT.

3.9 PROTECTION OF INSTALLED WORK
A. Prohibit construction traffic over topsoil.
B. CONTRACTOR shall be responsible for maintaining installed materials and preventing their damage.
C. In the event of damage to prior work, CONTRACTOR shall immediately make repairs and replacements necessary to the satisfaction of the DEPARTMENT, at no additional cost to the DEPARTMENT.

END OF SECTION 31 23 23
PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. This Section includes CONTRACTOR requirements for dewatering, handling, processing, and amending excavated OU-2 Sediment. The physical characteristics of OU-2 sediment from Area 1 shall be improved to meet the requirements for placement of Amended Fill and other materials into the Containment Cell and the Lockport City Landfill Sediment Cell (LCLSC).
2. CONTRACTOR shall install and operate sediment and solids processing systems that meet the requirements of this Section and approved by the DEPARTMENT and ENGINEER.
3. CONTRACTOR shall be responsible for the construction, operation, maintenance, and performance specifications as noted in Contract Drawings Standard Specifications, and Supplementary Specifications.

B. Related Sections:

1. Section X Standard Specifications:
   a. Section 01 33 00 – Submittal Procedures
   b. Section 01 73 00 – Field Engineering
2. Section XI Supplementary Specifications
   a. Section 01 57 13 – Erosion and Sedimentation Controls
   b. Section 02 72 00 – Water Treatment
   c. Section 02 80 01 – Decontamination
   d. Section 31 05 19 – Geotextiles
   e. Section 31 05 21 – Geomembrane Barrier
   f. Section 31 23 16 – Excavation
   g. Section 36 60 00 – Temporary Water Diversion and Flood Contingency Planning
3. Section XII Measurement for Payment

1.2 REFERENCES

A. ASTM International:

1. ASTM C150 – Standard Specification for Portland Cement (Normal Type I)
2. ASTM D1004 – Test Method for Initial Tear Resistance of Plastic Film and Sheeting
4. ASTM D1557 – Standard Test Methods for Laboratory Compaction of Soils Using Modified Effort
5. ASTM D1587 – Standard Practice for Thin-Walled Tube Sampling of Soils for Geotechnical Purposes
7. ASTM D2216 – Standard Test Methods for Laboratory Determination of Water Content of Soil and Rock by Mass
8. ASTM D2487 – Standard Practice for Classification of Soils for Engineering Purposes
10. ASTM D2937 – Standard Test Method for Density of Soil in Place by the Drive-Cylinder Method
12. ASTM D4643 – Standard Test Method for Determination of Water Content of Soil and Rock by Microwave Oven Heating
14. ASTM D6693 – Standard Test for Determining Tensile Properties of Nonreinforced Polyethylene and Nonreinforced Flexible Polypropylene Geomembranes (Type IV)
15. ASTM D6938 – Standard Test Methods for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods

B. EPA:
1. SW-846 Test Method 9095B – Paint Filter Liquids Test

C. NYSDOT Standard Specifications:
1. NYSDOT Standard Specifications

D. New York State Department of Environmental Conservation
   1. State Pollutant Discharge Elimination System (SPDES) Equivalency Permit
   2. Title 6 New York Code of Rules and Regulations – Part 371.3

1.3 DEFINITIONS

A. Acceptance Criteria:
   1. Containment Cell Final Amended Fill must have a minimum 7-day undrained shear strength of 14 psi by ASTM D2850
   2. LCLSC Final Amended Fill must have a minimum 7-day undrained shear strength of 14 psi by ASTM D2850
   3. Amended Fill placed on the Litinski parcel (Section, Block, Lot (SBL) ID 108.00-1-18) located on the northern portion of the Containment Cell, must have sample results
demonstrating that the materials do not exhibit the characteristic of toxicity in respect to Lead (D008) per NYCRR Title 6 Part 371.3

B. Amended Fill:
1. Waste fill materials including sediment, soils, and acceptable debris resulting from dewatering, processing, mixing, and amendment with reagents (geotechnical and environmental) which are compliant with the Acceptance Criteria for placement in the Containment Cell and LCLSC

C. Dry Mass (of solids):
1. The dry mass (or dry weight) is the mass of a sample following the removal of water and can be calculated by dividing the total mass (weight) of a sample by (1 + ASTM D2216 water content).

D. Environmental Reagent(s):
1. A commercially available product that is demonstrably effective at immobilizing metals (e.g., lead), thus eliminating the toxicity characteristic. The product shall not reduce geotechnical strength of the amended fill and must have previously been approved for use by NYSDEC.

E. Exclusion Zone:
1. See Section 02 80 01 – Decontamination.

F. Geotechnical Reagent(s):
1. Cementitious Materials consisting of ASTM C150 Portland cement, Normal Type I; with ASTM 989, Grade 80 (or higher) Ground Granulated Blast-Furnace Slag (GGBFS); Fly Ash; or combination of Cementitious Materials that the CONTRACTOR has demonstrated to be effective at creating an amended fill that satisfies the respective Acceptance Criteria for placement in the Containment Cell and/or LCLSC.
2. The CONTRACTOR shall use a combination of Cementitious Materials that will result a dosage of Portland cement that is no less than 3% of the dry mass of waste.

G. Non-Hazardous OU-1 Fill:
1. OU-1 waste that has been demonstrated through representative sampling to not leach lead at hazardous concentrations (i.e., 5 mg/l) and may be placed on the Lintinski parcel (Section, Block, Lot (SBL) ID 108.00-1-18) following mixing with OU-2 sediments and Geotechnical Reagents.

H. OU-1 Fill Characterization Sample:
1. Samples collected by the CONTRACTOR from stockpiled OU-1 fill material. Characterization samples shall be representative of the excavated fill, collected, and analyzed in accordance with the procedures discussed in paragraph 3.3.C to determine if the representative volume of OU-1 material exhibits toxicity characteristic due to the leachability of metals (i.e., lead D008).

I. Treated Material:
1. Fill/ash material located in OU-1 that previously exhibited toxicity characteristic due to the leachability of metals (i.e., lead D008), which has been blended with one or more
Environmental Reagents that immobilizes metals and has been demonstrated thru Verification Sampling to no longer exhibit a toxicity characteristic.

J. Verification Sampling:
   1. A representative sample collected from ash/fill after it has been blended with Environmental Reagents and analyzed in an approved laboratory using SW-846 Test Method 1311: Toxicity Characteristic Leaching Procedure, to confirm the Treated

K. Weak Amended Fill:
   1. Amended Fill that when tested by ASTM D2850 – Standard Test Method for Unconsolidated-Undrained Triaxial Compression Test on Cohesive Soils achieves a 7-day compressive strength that is less than 65% of shear strength of the Acceptance Criteria

1.4 PERFORMANCE REQUIREMENTS

A. CONTRACTOR shall be responsible for the collection, mixing, and testing of representative samples for geotechnical reagent pilot testing required for OU-1 Containment Cell and LCLSC material placement in accordance with Paragraph 3.5 of this section

B. CONTRACTOR shall be responsible for the selection, design, furnishing, construction, installation, commissioning, testing, operation, maintenance, and performance of the full sediment and solids processing system and all equipment, materials, containment and staging areas, access ways, and other supporting features necessary to complete the Work specified herein.

C. CONTRACTOR shall be responsible for creating Treated Materials as determined to be necessary by OU-1 Fill Characterization Sampling as defined in Section 1.3. CONTRACTOR shall provide all labor, equipment, and materials, including but not limited to scales, flow meters, tanks, and reagent(s) necessary to excavate hazardous OU-1 fill/ash, stockpile at specified tonnage, add effective mass (dosage) of reagent(s), blend (homogenizing) reagent(s) into ash/fill, and perform verification sampling.

D. CONTRACTOR shall be responsible for the dewatering system design and may utilize gravity dewatering, filter press dewatering, and/or geotextile tube dewatering. Dewatering process must be able to dewater sediment in a timely manner to maintain an effective production rate and to result in sediment which can pass the EPA Paint Filter test prior to transportation on public roads, packaging for disposal at an offsite landfill, placement in the Containment Cell, and placement in the LCLSC. Failure to meet these requirements shall result in a modification to the CONTRACTOR’s means and methods to achieve acceptable conditions at no additional cost to DEPARTMENT.

E. CONTRACTOR shall be responsible for the mixing and amendment means, methods, and quantities such that the final Amended Fill material will meet the Acceptance Criteria included in this Section prior to placement in the Containment Cell and/or the LCLSC. Failure to meet these requirements shall result in a modification to the CONTRACTOR’s means and methods to achieve acceptable conditions at no additional cost to DEPARTMENT.
1.5 SUBMITTALS

A. Pilot Test Work Plan
1. Prepare a narrative and any supporting documentation required to describe the following:
   a. Sample size, techniques for compositing, and methods for decanting free water from submerged sediment samples prior to packaging and transporting to the approved geotechnical laboratory
   b. Specifications for any scales or measurement devices used in the field to weigh or quantify samples.
   c. Standard Operating Procedures (SOPs) that are used by the approved geotechnical laboratory for proportioning geotechnical reagent with OU-1 fill and OU-2 sediments.
   d. Strength testing performed by the approved geotechnical laboratory shall be performed on specimens compacted to no more than 85 percent of the maximum dry density as determined by ASTM D1557
   e. Documentation of any water added to OU-1 fill to control dust or improve blending
   f. Demonstration of any field methods to determine water content, Moisture Analyzer such as ML-50, manufactured by A & D Company, limited (or approved equal) and/or ASTM D4643 – Standard Test Method for Determination of Water Content of Soil and Rock by Microwave Oven Heating can be performed to within 2% of the value obtained by ASTM D2216 – Standard Test Methods for Laboratory Determination of Water Content of Soil and Rock by Mass as performed by the approved geotechnical laboratory.

B. Sediment Dewatering and Processing Plan (as a component of the Work Plan)
1. As required by Section 01 33 00 - Submittal Procedures.
2. Prepare a Sediment Dewatering and Processing Plan to include as a component of the Work Plan. The Sediment Processing Plan shall include details on all unit processes of processing equipment and methods to be employed in the process train. The CONTRACTOR shall specify the dewatering method to be used and specify the processing equipment required for that method. As a minimum, the Sediment Processing Plan shall include (items listed shall apply to gravity dewatering, filter press, and geotextile tubes, or approved equal, unless otherwise noted):
   a. A written description of the major elements of work involved and the operation and maintenance procedures at the sediment processing areas.
   b. A detailed description of scales, flow meters, and measurement techniques used to determine total mass of OU-2 sediments, OU-1 fill (for placement in the Containment Cell, OU-1 fill shall not be incorporated into the LCLSC amended fill), environmental reagent(s), and Geotechnical Reagent(s). CONTRACTOR shall provide manufactures documentation that any proposed scales, flow meters, and measurement techniques will be able to determine mass with an accuracy of +/- 2%
   c. Description of field procedures for determining moisture content of OU-2 sediment and OU-1 fill as a ratio of the mass of water divided by the mass of solids. CONTRACTOR’S procedures shall conform with ASTM D4643 or by a Moisture Analyzer following a successful demonstration of accuracy during the Pilot Test and with the ENINEERS written approval.
d. A detailed description of the means and methods, including all equipment and personnel, for sediment processing, dewatering, amendment, preparation for disposal, placement, and compaction.

e. Details regarding the types, sizes, and quantities of equipment CONTRACTOR proposes to use for sediment processing, dewatering, amendment, transportation, placement, and compaction. Include detailed specifications on the proposed equipment and mix design. Include processing capacities, performance ratings, and guarantees.

f. A flow chart depicting the processing steps and illustrating the various process streams, including all inputs and outputs and an overall material balance.

g. Proposed sediment processing area utilization, with emphasis on maintaining compact use of space for all work. Include size and layout of the dewatering area.

h. Equipment arrangement, scaled diagrams, and elevations as applicable, which illustrate component location, connections, and utilities.

i. Power system location and capacity. Mechanical and electrical design drawings stamped by a Professional Engineer, licensed in New York.

j. Product data, mixing methodology, dosage rate, weight receipts and safety data sheets for all proposed geotechnical and environmental reagents.

k. Procedures for weighing OU-1 fill, OU-2 sediments, and reagents.

l. Procedures for documenting that Amended Fill has been prepared with a formulation (i.e., mixture of OU-1 fill and Area 1 sediment, dosage of Geotechnical Reagent) that was demonstrated to be effective at achieving the minimum undrained shear strength during the Pilot test.

m. Implementation of a test fill using full-scale operations using the geotechnical reagent dosage determined during the Pilot Test, including but not limited to material management, weighing sediment/fill/geotechnical reagents, water content measurements, mixing sediment/fill/geotechnical reagents, loading, transporting, grading, compacting, and density testing.

n. Considerations made regarding mixing of Acceptable Debris and Acceptable Vegetative Debris into fill material prior to placement in the LCLSC.

o. Sampling of Area 2 OU-2 vegetation to determine the need for blending wood chips with amended fill prior to placement in the LCLSC.

p. Considerations made regarding mixing of Acceptable Debris and Acceptable Vegetative Debris into fill material prior to placement in the OU-1 Containment Cell.

q. Manufacturer’s operation and maintenance recommendations.

r. Temporary enclosure structure footprint and relative position of equipment, if required.

s. Should the filter press or geotextile tube solids processing methods be selected, provide qualifications for a technician with a minimum of 5 years of experience operating the chosen process for sediment remediation or similar projects.

3. Prepare a Sediment Processing Equipment Operations and Maintenance Plan to include as a component of the Work Plan. This plan shall include operation and maintenance information to verify continuing efficient operation. This plan shall include:

a. Spare parts lists for major pieces of equipment.

b. Manufacturer’s record of all scales and/or flow meter calibrations and certifications.

c. Preventative maintenance schedule for major pieces of equipment.

4. Prepare a Winterization Plan to include as a component of the Work Plan to ensure efficient operation during cold-weather months.
C. Action Submittals. Submit at least 20 days prior to product delivery to site and any Work associated with products/design.
   1. Product Data. (Sand Base, Underdrain Stone, Sump pipe, Liner, Geotextile, Concrete Block Wall, Portland Cement, Dewatering Products, etc.)
      a. Submit product standards, physical and chemical characteristics, technical specifications, limitations, maintenance instructions, and general recommendations regarding each material.
   2. Design Data
      a. Submit mix design for OU-1 Fill/Environmental Reagent(s) if characterization sampling determines that less than 9,000 tons (approximately, 6,000 CY) of OU-1 fill is non-hazardous
      b. Submit results of the Pilot test with OU-2 (Area 1) Sediment/OU-1 Fill/Geotechnical Reagent mix design for placement in the Containment Cell.
      c. Submit results of the Pilot test with OU-2 (Area 2) Sediment/Geotechnical Reagent mix design for placement in the LCLSC.
      d. Submit Dewatering System Design

D. Informational Submittals. Submit at least 20 days prior to product delivery to site and any Work associated with products.
   1. Manufacturer’s Certificate: Certify that products meet or exceed specified requirements.

E. Action Submittals. Testing Results. Submit within 12 hours of performing the test or receiving the results from the laboratory.
   1. Paint Filter Tests (as required by Paragraph 3.2.D of this Section).
   2. Daily records of field and laboratory measurements of the wet unit weight, dry unit weight, and water content of OU-1 Fill, OU-2 Sediments, and mass of reagents added to Treated Materials, Containment Cell Final Amended Fill, and LCLSC Final Amended Fill

3. Stockpiled OU-1 Fill
   a. Daily record of total weight of all OU-1 Fill material excavated.
   b. The following OU-1 Fill Sampling results in accordance with the frequency and analytic requirements provided in Paragraph 3.3.C of this Section:
      1) Water Content Sampling Results
      2) Characterization Sampling Results
      3) Verification Sampling results (if required)

4. Stockpiled OU-2 Sediment
   a. Daily record of total weight of all OU-2 Sediments dredged from Gulf Creek and transported to a dewatering pad,
   b. OU-2 sediment water content sampling results in accordance with the frequency and analytic requirements provided in paragraph 3.2.

5. Containment Cell Final Amended Fill (Mixed OU-2 Area 1 Sediment, OU-1 Fill, Geotechnical Reagent(s), and approved debris)
   a. Daily record of the following total material weights in accordance with the requirements provided in Paragraph 3.5.C of this Section:
      1) OU-1 Fill Material used for Containment Cell Final Amended Fill
      2) OU-2 Sediment used for Containment Cell Final Amended Fill
   b. The following Sampling results in accordance with the frequency and analytic requirements provided in Paragraph 3.5.C of this Section:
      1) Water content of OU-1 Fill Material used for Containment Cell Final Amended Fill
2) Water content of OU-2 Sediment used for Containment Cell Final Amended Fill
3) Water content of Geotechnical Reagent
4) Geotechnical Reagent dry mass records used for Containment Cell Final Amended Fill
5) Modified Proctor Test ASTM D1557 results

6. LCLSC Amended Fill
da. Daily record of total weight measured of OU-2 Sediment used for LCLSC Final Amended Fill
b. The following Sampling results in accordance with the frequency and analytic requirements provided in Paragraph 3.5.D of this Section:
   1) Water content of OU-2 Sediment used for LCLSC Final Amended Fill
   2) Dry mass of Geotechnical Reagent used for Containment Cell Final Amended Fill
   3) Modified Proctor Test results

7. Placed Amended Fill
a. Amended Fill Construction Testing Results per ASTM D6938 – Standard Test Methods for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods, documenting compliance with compaction requirements.

F. Informational Submittals.
1. Daily Sediment Processing Reports
   a. Daily operation and maintenance records and reports. Submit by 9:00am the next working day following the day covered by the report.
   b. Daily record of all material weights handled, blended, and or placed in the Containment Cell and/or LCLSC

G. Informational Submittals. Surveys.
1. As-Built Survey of Containment Cell and LCLSC subgrade prior to backfilling. Submit prior to placing Amended Fill.
2. Progress As-Built Surveys of Amended Fill placement. Submit monthly (with each Application for Payment)
3. As-Built Survey of final Amended Fill grades. Submit within 10 days of completion of backfilling activities.

H. Closeout Submittals. Record Drawings.
1. Record Drawings of Amended Fill placement in both the Containment Cell and the LCLSC. Submit within 20 days of installation completion.

1.6 ENVIRONMENTAL REQUIREMENTS

A. Earthwork activities including mixing and amendment shall be suspended when satisfactory results cannot be obtained because of un-controllable fugitive dust, non-compliance with perimeter work zone air monitoring and or environmental factors such as rain, freezing temperatures, moisture content, or other unsatisfactory conditions in the field.
1.7 QUALITY ASSURANCE

A. CONTRACTOR shall maintain on-site equipment and personnel necessary for measuring and documenting the mass of OU-1 fill, sediments, water, reagent(s), and performing moisture content analysis of sediment slurries, stockpiles, geotextile tubes, or filter cake at different points in the system. CONTRACTOR shall measure and record the wet and dry mass of OU-1 Fill, OU-2 Sediments, and dry mass of reagents added to Treated Materials, Containment Cell Final Amended Fill, and LCLSC Final Amended Fill on a daily basis as required to assess performance of the sediment processing system and as directed by the ENGINEER.

B. CONTRACTOR shall maintain at or near the Site equipment and personnel necessary for measuring and documenting the mass of OU-1 fill, sediments, water, reagent(s), and performing moisture content analysis of sediment slurries, stockpiles, geotextile tubes, or filter cake at different points in the system. CONTRACTOR shall perform moisture content analysis on a daily basis as required to assess performance of the sediment processing system and as directed by the ENGINEER.

C. CONTRACTOR shall maintain at or near the Site equipment and personnel necessary for performing the geotechnical testing required by this Section. Ensure that the geotechnical testing requirements of the sediment (at various stages of processing) will not cause delays to the construction schedule.

D. If testing demonstrates that the CONTRACTOR has placed Weak Amended Fill, the CONTRACTOR shall collect one (1) Shelby Tube sample every 10,000 square feet from the depth interval representative of the weak amended fill and all Shelby Tube samples shall be analyzed for undrained shear strength by ASTM D2850. If none of the individual Shelby Tube samples has a result that is less than 50% of the Acceptance Criteria and the average of the Shelby Tube samples is greater than 65% of the Acceptance Criteria the CONTRACTOR, with written approval from the ENGINEER, has demonstrated that the Amended Fill satisfies the Acceptance Criteria.

PART 2 - PRODUCTS

2.1 MIX MATERIALS

A. Geotechnical Reagent(s):
   1. Cementitious Materials: ASTM C150 Portland cement, Normal Type I; ASTM 989 Grade 80 (or higher) Ground Granulated Blast-Furnace Slag (GGBFS); Fly Ash; or combination of Cementitious Materials that CONTRACTOR has demonstrated to be effective at creating an amended fill that satisfies the acceptance criteria for placement in the Containment Cell and/or LCLSC.
      a. Mix OU-2 (Area 1) Sediment/OU-1 Fill (Treated Material) on a dry weight basis with geotechnical reagents at the percentages verified during the pilot test.
      b. Mix OU-2 (Area 2) Sediment on a dry weight basis with geotechnical reagents at the percentages verified during the pilot test.
      c. Mix to obtain minimum shear strength of 14 psi at 7 days at the Containment Cell and 14 psi at 7 days at the LCLSC as measured using ASTM D2850.
2.2 TEMPORARY DEWATERING PAD

A. Sand Base
   2. Material shall be locally derived from sources within NYSDOT Regions 4 or 5.

B. Underdrain Stone
   2. Material shall be locally derived from sources within NYSDOT Regions 4 or 5.

C. Sump
   1. Dewatering Pad Sump shall be composed of 24” diameter ADS N-12 or approved equal.
   2. Sump piping shall be performed with 0.5” holes spaced every 45 degrees around the pipe at 2” intervals.

D. Liner
   1. 40-Mil. HPDE Geomembrane
      a. 40 Mil. HDPE Geomembrane shall meet the specifications of NYSDOT Standard Specifications 737.0201.

E. Stabilization Geotextile
   1. See Section XI Supplementary Specifications: Section 31 05 19 – Geotextiles.

F. Concrete Block Wall
   1. Concrete Block shall meet the requirements of NYSDOT Standard Specifications 704-03 Precast Concrete – General.

2.3 DEWATERING EQUIPMENT

A. Except for the products and equipment specified in this Section, CONTRACTOR shall be responsible for the selection of types, sizes, and quantities of equipment and vessels to perform the work. Equipment shall meet the minimum specified requirements and meet the production requirements of the Work. Materials and equipment chosen for this work shall be adequate in capacity for required usage, shall not create unsafe conditions, and shall meet requirements of applicable codes and standards and approval of the ENGINEER. Materials shall be new and unused unless otherwise approved by the ENGINEER. Approval for such items may be withheld due to excess wear, inappropriate size, or other factors which may compromise efficient use of the item.
PART 3 - EXECUTION

3.1 DEWATERING PAD

A. CONTRACTOR shall install Dewatering Pads in approved areas. The Dewatering Pad shall isolate stored and processed OU-2 sediment and free liquids from the environment. CONTRACTOR shall ensure that free liquids will be collected, treated, and discharged in accordance with Section XI Supplementary Specifications: Section 02 72 00 – Water Treatment and the SPDES Equivalency Permit. Dewatering Pads shall be sized to allow for a storage capacity sufficient to maintain an effective sediment processing rate and to provide containment for the water treatment system.

B. The Dewatering Pads shall include a sump to accommodate surface run-off from sediment and water processing area. Sump shall be sized for storage of a 4 inches rainfall event over the surface of the sediment and water processing area for a period of 24 hours. Runoff shall be directed to the wastewater treatment system for treatment and discharge in accordance with Section XI Supplementary Specifications: Section 02 72 00 – Water Treatment.

C. If the Dewatering Pads are located within OU-2, the CONTRACTOR shall excavate sediment from the location of the dewatering pads in accordance with Section XI Supplementary Specifications: Section 31 23 16 – Excavation.

D. Upon approval from ENGINEER, CONTRACTOR shall place Sand Base layer at a thickness of at least 6 inches. CONTRACTOR shall grade Sand Base layer to provide positive drainage towards the sump location at a slope of at least 2%.

E. CONTRACTOR shall install Concrete Block Wall at the limits of the dewatering pad providing an entrance/exit for construction vehicles.

F. Install the 40 Mil. Geomembrane in accordance with the Contract Drawings

G. CONTRACTOR shall install Stabilization Geotextile in accordance with Contract Drawings and Section XI Supplementary Specifications: Section 31 05 19 – Geotextiles.

H. CONTRACTOR shall install Underdrain Stone in a layer of at least 1 foot thick and within the Sump.

3.2 OU-2 SEDIMENT EXCAVATION AND DEWATERING

A. CONTRACTOR shall set up Active OU-2 Work Areas as defined in Section XI Supplementary Specifications: Section 31 23 16 – Excavation that are segregated from inactive areas within OU-2. Create Active OU-2 Work Areas by installing water diversion structures and turbidity barriers in accordance with the Contract Drawings, Section XI Supplementary Specifications: Sections 36 60 00 – Temporary Water Diversion and Flood Contingency Planning and 31 23 16 – Excavation. The controls shall segregate active excavation areas and haul routes within OU-2 from the surrounding environment. CONTRACTOR shall prevent surface water and groundwater from entering or exiting the Active OU-2 Work Areas to the maximum extent possible. Dewater Active OU-2 Work Areas as necessary to complete excavation and backfill in accordance with Section XI Supplementary Specifications: Section 31 23 19 – Excavation.
Dewatering. Treat and discharge collected excavation liquids in accordance with Section XI Supplementary Specifications: Section 02 72 00 – Water Treatment.

B. CONTRACTOR shall excavate OU-2 Sediment in accordance with Section XI Supplementary Specifications: Section 31 23 16 – Excavation.

C. CONTRACTOR shall transport OU-2 Sediment from the Active OU-2 Work Areas to the Dewatering Pad. CONTRACTOR shall prevent release of liquids to areas outside of containment. Spillage of liquids or sediment to areas outside of the Active OU-2 Work Areas or the Dewatering Pads shall not be permitted.

D. Dewatering of OU-2 Sediment. CONTRACTOR shall dewater sediment on the Dewatering Pads.

1. Dewatering shall be conducted in a manner to reduce impacts of nuisance odor, dust, and noise.
2. The CONTRACTOR is responsible for providing the design.
3. Prior to transportation out of the Active OU-2 Work Areas or Dewatering Pads, the OU-2 Sediment shall pass Paint Filter Test (SW-846 Test Method 9095B).
   a. Paint Filter Tests shall be performed on dewatered sediment at a rate of 5 samples per 100 cubic yards. The sample locations shall be jointly selected with the ENGINEER.
   b. The required frequency of Paint Filter Test may be decreased upon continued successful tests while sediment composition remains consistent at the discretion of the ENGINEER.
   c. Paint Filter Tests shall be run on samples above freezing. If the air temperature has been below 32 degrees F in the previous 24 hours prior to conducting the Paint Filter Tests, the CONTRACTOR shall use a digital thermometer inserted completely into the stockpile of the material to be tested to ensure the material is not frozen. Temperature testing shall be conducted in the presence of the ENGINEER.

E. Upon passage of the Paint Filter Test and approval of the ENGINEER, CONTRACTOR shall transport sediment to the Stockpile and Processing Area at the LCLSC, top of OU-1, or other approved locations. CONTRACTOR shall prevent release of sediment and liquids during transportation. Spillage of liquids or sediment shall be cleaned up by the CONTRACTOR immediately at no additional cost to the DEPARTMENT.

F. Stockpiling of OU-2 Sediment.

1. CONTRACTOR shall stockpile OU-2 Sediment in the Stockpile and Processing Areas depicted in the Contract Drawings or on previously placed and approved lifts of Amended Fill within the Containment Cell, LCLSC, or other approved areas.
2. CONTRACTOR shall prevent exposure of stormwater to excavated materials by diverting stormwater run-on around stockpiling, processing, and active excavation areas. Collected stormwater exposed to excavated materials shall be treated and discharged in accordance with Section XI Supplementary Specifications: Section 02 72 00 – Water Treatment.
3. CONTRACTOR may elect to segregate OU-2 Sediment based on physical characteristics. If the testing required in this Section demonstrates that a specific stockpile of OU-2 Sediment will meet the Containment Cell Acceptance Criteria without
further amendment, the CONTRACTOR may place this sediment without amendment upon ENGINEER’s approval and upon certifying via testing that the material meets the Containment Cell Acceptance Criteria.

G. Testing of Stockpiled OU-2 Sediment.

1. CONTRACTOR shall conduct the following tests on stockpiled OU-2 sediment prior to further processing at a rate of 1 sample per 500 tons or whenever noticeable variations occur in sediment physical characteristics:
   a. Daily record of total weight of all OU-2 Sediments dredged from Gulf Creek and transported to a dewatering pad,
   b. At a frequency of 1 test per 500 tons (approximately 400 CY) and whenever noticeable variations occur in OU-1 fill physical characteristics, measure water content of OU-1 Fill by ASTM D2216 or with written approval from the ENGINEER by Moisture Analyzer or ASTM D4643

3.3 OU-1 FILL EXCAVATION

A. CONTRACTOR shall excavate OU-1 Fill in accordance with Section XI Supplementary Specifications: Section 31 23 16 – Excavation.

B. Stockpiling of OU-1 Fill.

1. CONTRACTOR shall stockpile OU-1 Fill in the Stockpile and Processing Area depicted in the Contract Drawings or on previously placed and approved lifts of Amended Fill within the Containment Cell or other approved areas.

2. CONTRACTOR shall prevent exposure of stormwater to excavated materials by diverting stormwater run-on around stockpiling, processing, and active excavation areas. Collected stormwater exposed to excavated materials shall be treated and discharged in accordance with Section XI Supplementary Specifications: Section 02 72 00 – Water Treatment.

C. Testing of Stockpiled OU-1 Fill.

1. CONTRACTOR shall conduct the following tests on stockpiled OU-1 Fill prior to further processing at a rate of 1 sample per 1,500 tons or whenever noticeable variations occur in fill physical characteristics:
   a. Daily record of total weight of all OU-1 Fill material excavated,
   b. At a frequency of 1 test per 1,500 tons (approximately 1,000 CY) and whenever noticeable variations occur in OU-1 fill physical characteristics, measure water content of OU-1 Fill by ASTM D2216 or with written approval from the ENGINEER by Moisture Analyzer or ASTM D4643
   c. OU-1 Fill Characterization Sample: TCLP(TCLP), Test Method 1311 (EPA Publication SW-846) and analyzed for Lead (D008) at a frequency of 1 test per 1,500 ton stockpile. CONTRACTOR shall cease collecting OU-1 Fill Characterization Samples after receiving six (6) sample results with lead concentrations less than 5 mg/l.
   d. If Characterization sampling identifies less than 9,000 tons of OU-1 fill as being non-hazardous, the CONTRACTOR will need to apply Environmental Reagent(s) and collect Verification Sample: TCLP(TCLP), Test Method 1311 (EPA...
Publication SW-846) from each 1,500 ton stockpile to verify the treated stockpile no longer leaches lead at concentrations exceeding 5 mg/l.

3.4 ADDITION OF ACCEPTABLE DEBRIS AND ACCEPTABLE VEGETATIVE DEBRIS

A. At the OU-1 Containment Cell, mix Acceptable Debris and Acceptable Vegetative Debris as defined in Section XI Supplementary Specifications: Section 31 23 16 – Excavation and 31 11 00 – Clearing and Grubbing into the Amended Fill or place larger items at discrete locations within Amended Fill lifts for backfilling and compaction around these items. The CONTRACTOR shall use a rammer compactor such as the BS60 manufactured by Wacker Neuson to compact 12-inch lifts around Acceptable Debris and Acceptable Vegetative Debris that has a dimension that is greater than the allowable lift thickness or 12 inches.

B. At the LCLSC, the CONTRACTOR shall collect five (5) bulk (wood) samples from five living trees within OU-2 (Area 2). The sample trees shall have diameter at breast height (dbh) that is greater than 24 inches. The bulk samples shall be collected 36 inches above the ground surface, the sample tool must be able to extend into the tree bole a distance equal ½ the tree diameter at sample height. All five (5) Bulk samples shall be analyzed for lead by EPA SW-846, Method 6010D. If any of the five bulk samples detect lead at concentrations that exceed 31 mg/kg the trees shall be managed as specified in Section 31 32 00, 3.6 (A). If all five bulk samples are less than 31 mg/kg lead, all trees not requited for restoration shall be chipped and placed between the limits of excavation and the limits of disturbance; the total height of the wood chip pile shall not exceed 2 feet.

C. Ensure that these materials are distributed throughout the Containment Cell and will not result in discrete volumes of material with significantly higher percentages of debris or organic material.

D. No Acceptable Debris shall be placed in Amended Fill within five horizontal and vertical feet of the Groundwater Underdrain, Buttress, or Sand Gas Venting Layer. Large Acceptable Debris items with a dimension greater than 12 inches shall be placed in areas of the Containment Cell selected by the ENGINEER.

3.5 TESTING

A. Following mobilization, site preparation, and establishment of dewatering pads, stockpile and processing area, the CONTRACTOR shall perform pilot test. The pilot test shall be performed using all the equipment (i.e., excavators, silo, pugmill, loaders, compactors) and instrumentation (i.e., scales, flowmeters, moisture analyzer) that will be used to complete the project. The pilot test shall be performed using the specified mixture and percentage of geotechnical reagent to attain an undrained shear strength that satisfies the Acceptance Criteria.

1. OU-1 Containment Cell Pilot Test:
   a. The CONTRACTOR shall weigh materials as described in (Paragraph 3.5 C (a-e) of this specification). The CONRACTOR shall homogenize a mixture of OU-1 fill/ash and Area 1 OU-2 sediments. The homogenized mixture of OU-1 fill/ash and Area 1 OU-2 sediment shall be combined at dry mass ratio of 5:1 (dry mass of OU-1 fill: dry mass of OU-2 sediment) and the Geotechnical Reagents added at 10% of the dry mass of the homogenized (OU-1:OU-2) mixture. The Pilot Test shall be performed for five (5) days. A representative geotechnical sample shall be
collected every day or 2,000 tons whichever results in more sample collection. The representative geotechnical sample shall be of properly homogenized mixture of geotechnical reagent, OU-1 fill/ash, and OU-2 Area 1 sediments. The CONTRACTOR shall submit samples to an approved geotechnical laboratory perform the following tests:

1) ASTM D1557 – Standard Test Methods for Laboratory Compaction of Soils Using Modified Effort
2) ASTM D2216 – Standard Test Methods for Laboratory Determination of Water Content of Soil and Rock by Mass (or with written approval from the ENGINEER by Moisture Analyzer or ASTM D4643)
3) ASTM D2850 – Standard Test Method for Unconsolidated-Undrained Triaxial Compression Test on Cohesive Soils (7-day compressive strength of 14 psi, 28-day compressive strength greater than 14 psi). The geotechnical laboratory shall compact sample to a dry density that is no greater than 85% of the dry density measured by ASTM D1557.

b. During the Pilot Test the CONTRACTOR shall place, grade, and compact amended fill using the same equipment that will be used to complete the project. In-place density and water content shall be determined every 10,000 square-feet following the ASTM D6938 procedures. Each day three (3) 3-inch diameter sample shall be collected in accordance with ASTM D1587 from the placed and compacted amended fill that had the lowest measured dry density. The three (3) thin-walled amended fill samples shall be tested for undrained shear strength at the approved geotechnical laboratory using ASTM D2850.

c. At no additional cost to the DEPARTMENT, the CONTRACTOR may perform additional testing to demonstrate to the DEPARTMENT and ENGINEER that a particular combination of reagents will be effective

2. LCLSC Pilot Test:

a. The CONTRACTOR shall weigh materials as described in (Paragraph 3.5 D (a-c) of this specification). The CONTRACTOR shall add Geotechnical Reagents at 15% of the dry mass of the Area 2 OU-2 sediments and the homogenized mixture. The Pilot Test shall be performed for five (5) days. A representative geotechnical sample shall be collected every day or 2,000 tons whichever results in more sample collection. The representative geotechnical sample shall be of properly homogenized mixture of geotechnical reagents and Area 2 OU-2 sediments. The CONTRACTOR shall submit samples to an approved geotechnical laboratory perform the following tests:

1) ASTM D1557 – Standard Test Methods for Laboratory Compaction of Soils Using Modified Effort
2) ASTM D2166 – Standard Test Method for Unconfined Compressive Strength of Cohesive Soil (7-day compressive strength of 14 psi)
3) ASTM D2216 – Standard Test Methods for Laboratory Determination of Water Content of Soil and Rock by Mass (or with written approval from the ENGINEER by Moisture Analyzer or ASTM D4643)
4) ASTM D2850 – Standard Test Method for Unconsolidated-Undrained Triaxial Compression Test on Cohesive Soils (7-day compressive strength of 14 psi) The geotechnical laboratory shall compact sample to a dry density that is no greater than 85% of the dry density measured by ASTM D1557.

b. During the Pilot Test the CONTRACTOR shall place, grade, and compact amended fill using the same equipment that will be used to complete the project. In-place density and water content shall be determined every 10,000 square-feet following the ASTM D6938 procedures. Each day three (3) 3-inch diameter
sample shall be collected in accordance with ASTM D1587 from the placed and compacted amended fill that had the lowest measured dry density. The three (3) thin-walled amended fill samples shall be tested for undrained shear strength at the approved geotechnical laboratory using ASTM D2850.

c. At no additional cost to the DEPARTMENT, the CONTRACTOR may perform additional testing to demonstrate to the DEPARTMENT and ENGINEER that a particular combination of reagents will be effective.

B. Upon ENGINEER’s approval, the mix ratio may be adjusted if it can be demonstrated that the Amended Fill material will meet the Acceptance Criteria.

C. Testing of Containment Cell Final Amended Fill (Mixed OU-2 Area 1 Sediment, OU-1 Fill, Geotechnical Reagent(s), and approved debris)

a. Daily record of total weight measured of OU-1 Fill Material used for Containment Cell Final Amended Fill

b. Measure and record daily or every 1,500 tons if more frequent, the water content of OU-1 Fill Material used for Containment Cell Final Amended Fill by ASTM D2216 or with written approval from the ENGINEER by Moisture Analyzer or ASTM D4643.

c. Daily record of total weight measured of OU-2 Sediment used for Containment Cell Final Amended Fill.

d. Measure and record daily or every 500 tons if more frequent, the water content of OU-2 Sediment used for Containment Cell Final Amended Fill by ASTM D2216 or with written approval from the ENGINEER by Moisture Analyzer or ASTM D4643.

e. Measure and record daily or every 200 tons if more frequent, the mass of Geotechnical Reagent used for Containment Cell Final Amended Fill.

f. Modified Proctor Test (ASTM D1557); at a frequency of 1 test per 2,000 tons or whenever noticeable variations occur in sediment physical characteristics.

g. Daily or every 2,000 tons if more frequent, collect a sample of the Final Amended Fill for laboratory analysis per ASTM D2850 – Standard Test Method for Unconsolidated-Undrained Triaxial Compression Test on Cohesive Soils (7 day shear strength of 14 psi).

D. LCLSC Final Amended Fill

a. Daily record of total weight measured of OU-2 Sediment used for LCLSC Final Amended Fill.

b. Measure and record daily or every 500 tons if more frequent, the water content of OU-2 Sediment used for LCLSC Final Amended Fill by ASTM D2216 or with written approval from the ENGINEER by Moisture Analyzer or ASTM D4643.

c. Measure and record daily or every 100 tons if more frequent, the mass of Geotechnical Reagent used for Containment Cell Final Amended Fill.

D. Modified Proctor Test (ASTM D1557); at a frequency of 1 test per 2,000 tons or whenever noticeable variations occur in sediment physical characteristics.

e. Daily or every 2,000 tons if more frequent, collect a sample of the Final Amended Fill for laboratory analysis per ASTM D2850 – Standard Test Method for Unconsolidated-Undrained Triaxial Compression Test on Cohesive Soils (7 day shear strength of 14 psi).

E. If the testing required in this Section demonstrates that final amended material exceed the shear strength requirements by more than 120% of respective Acceptance Criteria, the
CONTRACTOR shall reduce the percentage of Geotechnical Reagent(s) with the ENGINEER’s written approval.

F. If testing demonstrates that the final amended material is less than 85% of shear strength requirements of the respective Acceptance Criteria, the CONTRACTOR shall increase the percentage of Geotechnical Reagents to increase shear strength.

G. If testing demonstrates that the final amended material is less than 65% of shear strength requirements of the respective Acceptance Criteria, the CONTRACTOR shall:
1. Cease placement of final amended fill material
2. Prepare an “Amended Fill Improvement Plan” that includes but not limited to, description of steps that will be taken to improve the strength of weak amended fill that has been placed in the Containment Cell and/or LCLSC, changes to the mixing process to, changes to the percentages of Geotechnical Reagents added, and changes to the dewatering process to increase shear strength.
3. Upon receiving written approval from the ENGINEER, the CONTRACTOR shall implement corrective actions described in the “Amended Fill Improvement Plan” including removal and replacement of weak amended fill.

H. The CONTRACTOR shall inform the ENGINEER and DEPARTMENT prior to the collection of samples.

The DEPARTMENT reserves the right to require additional tests, and more frequent testing, when the materials do not comply with the specifications, at no additional cost to the DEPARTMENT.

3.6 PLACEMENT OF AMENDED FILL IN CONTAINMENT CELL and LCLSC

A. Preparation of Subgrade
1. Subgrade shall be relatively smooth (compacted with a pads foot roller), firm, and free from obstructions or voids that would affect proper position of any materials (geotextiles, fills, etc.) that are to be placed on the subgrade.
2. If Unsatisfactory Soils are identified by the CONTRACTOR or ENGINEER, follow procedures outlined in the paragraph of Section XI Supplementary Specifications: Section 31 23 16 – Excavation titled Specific Procedures for Excavation of Unsatisfactory Soils Beyond Other Excavation Limits.
3. Prepare previously undisturbed subgrade by providing at least three passes with a piece of construction equipment which exerts at least 10 psi ground pressure. Submit equipment specifications for approval to ENGINEER. Equipment shall be able to safely traverse steep slopes.
4. Prepare the subgrade of the Containment Cell in accordance with Section 31 23 16 – Excavation.

B. Upon acceptance of final material testing, confirmation that the material meets the Containment Cell Acceptance Criteria, and approval by ENGINEER, the CONTRACTOR shall spread Amended Fill in loose lifts with a maximum thickness of 12-inches prior to compaction. No Amended Fill shall be placed directly over the Groundwater Underdrain and Containment Cell Subgrade or LCLSC Subgrade without approval by the ENGINEER.
C. Amended Fill shall be compacted to a minimum of 85 percent of the maximum dry density as determined by the Modified Proctor Test required in Paragraph 3.7 of this Section. Compaction by water flooding or jetting is not permitted. Confirm compaction, see Paragraph 3.9 of this Section.

D. Initial 3 lifts over the Groundwater Underdrain.

1. The CONTRACTOR shall ensure that the initial lifts of Amended Fill are comprised of material substantially free from particles over 1 inch in diameter.

2. The initial 3 lifts of the Amended Sediment shall be placed using low ground pressure (LGP) equipment. The equipment shall operate only over previously placed Amended Sediment. Equipment shall not operate directly on the Groundwater Underdrain Woven Geotextile. The equipment shall not exert ground pressures exceeding the following:

<table>
<thead>
<tr>
<th>Maximum Allowable Equipment Ground Pressure (psi)</th>
<th>Minimum Thickness of Amended Sediment Above Geotextile (inches)</th>
</tr>
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<tbody>
<tr>
<td>5</td>
<td>12</td>
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<td>&lt;10</td>
<td>18</td>
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<tr>
<td>&lt;20</td>
<td>24</td>
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<td>&gt;20</td>
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3. When traveling on the initial lifts of Amended Sediment over the Groundwater Underdrain, vehicle speeds and turning shall be minimized to the satisfaction of the ENGINEER to avoid rutting, bouncing, and other stresses on underlying geosynthetics. Spreading of Amended Sediment in the initial lifts shall be done so as to avoid stretching, wrinkling, or creasing of the underlying geosynthetics.

4. CONTRACTOR shall post one spotter at each piece of equipment spreading Amended Sediment over geosynthetics at all times of active material spreading. At a minimum, the spotter shall walk out wrinkles, inspect for unacceptable objects in the Amended Sediment, and ensure lifts of adequate depth.

E. Place Amended Sediment up to but not exceeding the following limits:

1. To a maximum slope of 33% (3H:1V).

2. To a minimum slope of 4% (25H:1V).

F. Due to a number of factors, including a possible variation of OU-2 Sediment Volume and the uncertainty regarding the necessary ratios for sediment amendment, the final grades for Amended Sediment placement may vary from the grades depicted in the Contract Drawings. As the sediment volume is refined and mixing ratios are set, the CONTRACTOR and ENGINEER shall produce final Amended Fill grades and final Top of Cap Grades that meet design requirements.

3.7 CONSTRUCTION TESTING

A. Field density measurements shall be performed by an independent testing laboratory hired by CONTRACTOR by Nuclear Methods (ASTM D6938). Field density tests shall be completed on the placed Amended Fill lifts at a frequency of 1 test per 20,000 square feet.
B. Notify ENGINEER at least 24 hours prior to performing compacting testing.

3.8 PROTECTION OF INSTALLED MATERIALS

A. CONTRACTOR shall be responsible for maintaining installed materials and preventing their damage.

B. If any portion of installed Amended Fill will sit undisturbed for longer than 7 days, the CONTRACTOR shall temporarily stabilize exposed soil surfaces that are in accordance with Section XI Supplementary Specifications: Section 01 57 13 – Temporary Erosion and Sedimentation Controls. Any active Work areas shall be surrounded by perimeter erosion and sediment controls.

C. The CONTRACTOR is responsible for implementing run-on controls as necessary to minimize stormwater from entering active Work areas.

D. Control surface and groundwater flow into active Work areas to the greatest extent possible. Treat and discharge collected liquids in accordance with Section XI Supplementary Specifications: Section 02 72 00 – Water Treatment and the SPDES Equivalency Permit.

E. In the event of damage to prior work, CONTRACTOR shall immediately make repairs and replacements necessary to the satisfaction of the DEPARTMENT, at no additional cost to the DEPARTMENT.

3.9 REPORTING

A. Include the following information in the Daily Sediment Processing Reports

1. Approximate mass of materials at each stage of the processing train. Mass can be approximated using methods approved in writing by ENGINEER, including but not limited to truck scales, conveyor scales, scales in excavation equipment (loaders), or other methods. Document the method used for approximation. Include the following approximate masses:
   a. Mass of OU-2 Sediment delivered to the dewatering pad
   b. Mass of water in OU-2 Sediment delivered to the dewatering pad
   c. Mass of OU-1 Fill stockpiled
   d. Mass of water in OU-1 Fill stockpiled
   e. Mass of Environmental Reagent if required for treatment of OU-1 Fill
   f. Mass of mixed OU-2 Sediment/OU-1 Fill
   g. Mass of Geotechnical Reagent(s)
   h. Mass of Acceptable Debris
   i. Mass of Acceptable Vegetative Debris (see Section 3.4 for limitations applicable to LCLSC)
   j. Mass of Final Amended Fill OU-2 Sediment/OU-1 Fill (not applicable to LCLSC)/Debris/Geotechnical Reagent

2. The CONTRACTOR shall determine the following volumes:
   a. Volume of placed Amended Fill in Containment Cell
   b. Volume of placed Amended Fill in LCLSC

3. Maintenance of processing equipment
4. Amendment ratios and wet weight of OU-2 Sediment, OU-1 Fill, and dry weight of OU-2 Sediment, OU-1 Fill, and Geotechnical Reagent used for amendment
5. Approximate volumes of Acceptable Debris and Acceptable Vegetative Debris mixed with Amended Fill or placed into lifts within the Containment Cell and LCLSC
6. Status of pending or completed material testing results (including paint filter test results)
7. Status of compaction testing results
8. Corrective actions necessary
9. Photographs of each stage of the sediment processing train

3.10 SURVEY AND RECORD DRAWINGS

A. Prepare and submit the following surveys prepared by a professional surveyor
   1. Survey of Containment Cell and LCLSC subgrade prior to placement of Amended Fill
   2. Progress surveys of Amended Fill placement on a monthly basis
   3. Survey of Final Amended Fill grades prior to capping (includes maximum horizontal extent of Amended Fill placement)

B. Elevations shall be confirmed immediately after installation.

C. The CONTRACTOR shall submit Record Drawings of the Amended Fill Placement in accordance with Section X Standard Specifications: Section 01 73 00 – Field Engineering.

END OF SECTION 31 32 00
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Sample Analysis</th>
<th>Sample Type</th>
<th>Sample Frequency</th>
<th>QA/QC Frequency</th>
<th>Required Turn Around Time</th>
<th>Level of Reporting</th>
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</thead>
</table>

NOTE: QA/QC = Quality Assurance/Quality Control
ASTM = American Society for Testing and Materials
EPA = U.S. Environmental Protection Agency
NYS = New York State
QAPP = Quality Assurance Project Plan
TCLP = Toxicity Characteristic Leaching Procedure

Turn-Around-Time is the amount of time between submittal of samples to the analytical laboratory and receipt of analytical results.

Standard level of reporting shall consist of a summary of laboratory results, laboratory QA/QC results, and a copy of the chain of custody submitted to the laboratory with the samples.
SECTION 31 37 16

BUTTRESS

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes Work required to install the Buttress including the Groundwater Trench, Groundwater Manhole and Sump, and Buttress Let-Down Channel.

B. Related Requirements:
   1. Section XI Supplementary Specifications:
      a. Section 31 05 19 – Geotextiles
      b. Section 31 23 16 – Excavation
      c. Section 31 23 24 – Groundwater Underdrain
      d. Section 31 23 26 – Barrier Protection Layer

1.2 REFERENCE STANDARDS

A. ASTM International:
   1. ASTM D5519 – Standard Test Methods for Particle Size Analysis of Natural and Man-Made Riprap Materials (Method A or B)

B. US Army Corps of Engineers
   1. USACE CRD-C144-92 – Standard Test Method for Resistance of Rock to Freezing and Thawing

C. New York State Department of Transportation
   1. NYSDOT Standard Specifications
   2. GTM-20 – Test Method for the Grain-Size Analysis of Granular Soil Materials
   3. GTM-21 – Test Method for Magnesium Sulfate Soundness of Granular Materials

D. Natural Resources Conservation Service

1.3 DEFINITIONS

A. Competent Bedrock
   1. See Section XI Supplementary Specifications: Section 31 23 16 – Excavation.

B. Unsatisfactory Soils
   1. See Section XI Supplementary Specifications: Section 31 23 16 – Excavation.
1.4 COORDINATION

A. Coordinate Work of this Section with OU-2 Sediment Excavation, OU-1 Fill Excavation (Containment Cell Subgrade), Groundwater Underdrain installation, Amended Fill placement, and Site Restoration.

1.5 PREINSTALLATION MEETINGS

A. Convene minimum one week prior to commencing Work of this Section.

1.6 SUBMITTALS

A. Action Submittals. Submit at least 20 days prior to product delivery to site and any Work associated with products.
   1. Product Data

B. Informational Submittals. Submit at least 20 days prior to product delivery to site and any Work associated with products.
   1. Material Source: Submit name of commercial material suppliers.
   2. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

C. Action Submittals. Submit at least 5 days prior to product delivery to Site.
   1. Preconstruction Testing Results documenting compliance with Part 1.7 and Part 2 requirements of this Section and NYSDEC DER-10/6 NYCRR Part 375 requirements.

D. Informational Submittals. Surveys.
   1. Survey of subgrade prior to backfilling. Submit prior to performing any backfilling activities.
   2. Survey of final Buttress grades. Submit within 10 days of completion of backfilling activities.
   3. Survey of final grades at least 30 days after completion of backfilling activities. Submit within 6 weeks of completion of Buttress installation.

E. Closeout Submittals. Record Drawings.
   1. Record Drawing of Amended Fill placement. Submit prior to Substantial Completion.

1.7 PRECONSTRUCTION TESTING

A. Underdrain Stone
   1. CONTRACTOR shall provide a minimum 1 grain-size analysis (NYSDOT GTM-20) and 1 magnesium sulfate soundness test (NYSDOT GTM-21) per 500 cubic yards of material performed for each source of Underdrain Stone prior to transportation to the site.

B. Fine Stone Fill, Light Stone Fill, Riprap
   1. CONTRACTOR shall provide a minimum 1 particle size gradation in accordance with ASTM D5519 Method A or B and ASTM D6913 (for the component less than 3 inches) and 1 Soundness Test in accordance with USACE CRD-C144-92 per 500 cubic yards of material for each type and source of stone material.
C. Imported materials must be sampled and tested in accordance with the requirements and frequencies required by NYSDEC DER-10 and 6 NYCRR Part 375. Levels of contamination must not exceed the lower of the groundwater and residential use levels as shown in Appendix 5 of DER-10.

D. The DEPARTMENT and ENGINEER reserve the right to request additional tests, and more frequent testing, when there is a change in the material (source or physical properties) in the material being delivered to the Site or when materials do not comply with the requirement specified herein at no additional cost to the DEPARTMENT.

1.8 ENVIRONMENTAL REQUIREMENTS

A. Do not install fill materials in wind in excess of 10 mph or during inclement weather including rain and snow. Do not install fill materials when frozen. Do not install fill materials over subgrade that is muddy, frozen, or contains frost.

B. Earthwork activities shall be suspended when satisfactory results cannot be obtained because of rain, freezing temperatures, moisture content, or other unsatisfactory conditions in the field.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Fine Stone Fill:
2. Material shall be locally derived from sources within NYSDOT Regions 4 or 5.
3. Fine Stone Fill shall be stone with naturally appearing coloration.
4. White stone will not be accepted.

B. Groundwater Manhole
1. The Groundwater Manhole shall meet the requirements of NYSDOT Standard Specifications 706-04 Precast Concrete Drainage Units. Manufacturer and product shall appear on the NYSDOT Materials Approved List for 706-03 Precast Concrete Group 2 and listed as routine (in good standing).
2. Manhole shall come in separate units (base, riser, top) to aid in installation within Buttress.
3. Frames and grates shall meet the requirements of NYSDOT Standard Specifications 706-04 and provide minimum clearance of 24 inches.

C. Grout:
1. Grout shall meet the specifications of NYSDOT Standard Specifications Table 733-22B Grouted Riprap Grout Requirements.

D. Light Stone Fill:
2. Material shall be locally derived from sources within NYSDOT Regions 4 or 5.
3. Light Stone Fill shall be stone with naturally appearing coloration.
4. White stone will not be accepted.

E. Perforated Pipe:

F. Riprap:
1. Riprap shall meet the requirements of NYSDOT Standard Specifications 733-2201 Dry Rip-Rap.
2. Material shall be locally derived from sources within NYSDOT Regions 4 or 5.
3. Riprap shall be stone with naturally appearing coloration.
4. White stone will not be accepted.

G. Underdrain Geotextile:
1. See Section XI Supplementary Specifications: Section 31 05 19 – Geotextiles.

H. Underdrain Stone:
2. Material shall be locally derived from sources within NYSDOT Regions 4 or 5.

PART 3 - EXECUTION

3.1 TOLERANCES

A. Surface elevations and slopes of the Buttress shall conform to the contours specified in the Contract Drawings with the following tolerances:

1. Surface Elevation: +1.5/-0.0 ft
   a. Surface Elevation within Buttress Let-Down Channel: +0.25/-0.25 ft
2. Slope: +0.0/-10.0 %

B. Placed material not conforming to the specified tolerance limits shall be removed and replaced as directed by the ENGINEER at no additional cost to the DEPARTMENT.

3.2 SURVEYS AND RECORD DRAWING

A. Prepare and submit the following surveys prepared by a professional surveyor:
1. Survey of subgrade prior to Buttress installation
2. As-Built Survey of Groundwater Trench and Sump, pipe, manhole, etc.
3. Survey of final grades upon completion of Buttress installation
4. Survey of final grades at least 30 days after completion of Buttress installation
B. Survey the following items (horizontal and vertical locations):
   1. Elevations of Buttress subgrade
   2. Location and limits of the Groundwater Trench
   3. Location and limits of sump
   4. Top of perforated pipe at each end and in center
   5. Manhole invert and sump
   6. Manhole rim
   7. Extent of Buttress including all grade breaks
   8. Extent of grouted riprap
   9. Top of bank and bottom of bank of each side of the Buttress Let-Down Channel
   10. Top of Buttress (edges and centerline)

C. Elevations of final conditions shall be confirmed immediately after installation and again at least thirty-days after installation to ensure settlement has not occurred that exceeds tolerances specified herein. CONTRACTOR shall correct any exceedances found at no additional cost to the DEPARTMENT.

D. The CONTRACTOR shall submit a Record Drawing of the Buttress installation in accordance with Section X Standard Specifications: Section 01 73 00 – Field Engineering.

3.3 SUBGRADE PREPARATION

A. Excavate OU-2 Sediment in accordance with Section XI Supplementary Specifications: Section 31 23 16 – Excavation.

B. Prepare subgrade in accordance with Section XI Supplementary Specifications: Section 31 23 16 – Excavation.

C. If Unsatisfactory Soils are present and upon approval, remove and replace in accordance the paragraph titled “Specific Procedures for Excavation of Unsatisfactory Soils Beyond Other Excavation Limits” in Section XI Supplementary Specifications: Section 31 23 16 – Excavation.

D. Subgrade surfaces shall be approved by ENGINEER prior to subsequent installation of geotextiles or filling activities. Do not backfill over frozen subgrade.

3.4 GROUNDWATER TRENCH, SUMP, AND MANHOLE

A. If Competent Bedrock elevations vary from expected conditions, adjustment to the elevations of the Groundwater Trench may be approved. The intent of the Groundwater Trench and Sump is to serve as a collection point for groundwater in the event that groundwater collection is necessary in the future. Design adjustments may be necessary based on field conditions.

C. Treat rock obtained from the Groundwater Trench excavation as Debris in accordance with the Debris Handling article of Section XI Supplementary Specifications: Section 31 23 16 – Excavation.

D. Install Underdrain Geotextile on bottom and sides of the Groundwater Trench and sump in accordance with Section XI Supplementary Specifications: Section 31 05 19 – Geotextiles. Ensure adjacent geotextile panels overlap by a minimum of 12 inches. Geotextile shall extend a minimum of 12 inches beyond horizontal limits of the Groundwater Trench and sump following rock and pipe installation.

E. Place and compact Underdrain Stone above Underdrain Geotextile resulting in a 3-inch thick layer on bottom of Groundwater Trench. Compact with two passes of a vibrating pad or drum type compactor. Carefully level and compact bed just prior to installation of the Perforated Pipe.

F. Install Perforated Pipe on compacted subgrade ensuring a minimum 2% slope towards the sump.
   1. Cap upgradient end of pipe with a suitable plug
   2. Installation of Perforated Pipe shall be approved prior to advancing with activities that will bury or obscure the pipe.

G. Place and compact Underdrain Stone above Underdrain Geotextile resulting in a 6-inch thick layer on bottom of sump. Compact with four passes of a vibrating pad or drum type compactor. Carefully level and compact bed just prior to installation of the manhole monolithic base.

H. Install monolithic base of Groundwater Manhole at proper grade and alignment on compacted subgrade centered within the sump.
   1. Only lift at lifting points designated by manufacturer.
   2. When lowering manhole and joining pipe to unit, take precautions to ensure that interior of Perforated pipe remains clean.
   3. Install perforated pipe invert at the elevation depicted in the Contract Drawings.
   4. Remove knockouts or cut structure to receive piping without creating openings larger than required. Fill annular space with mortar.
   5. Cut pipe flush with interior of structure.

I. Backfill and compact Underdrain stone in 12-inch lifts within remaining sump and trench around and above the Perforated Pipe and monolith base of the manhole. Install Underdrain Stone as indicated in the Contract Drawings up to 1 foot below top of monolithic base section. Compact each lift with four passes of a vibrating pad or drum type compactor.

J. Before continuing with backfill, install riser section.
   1. Install rubber gasket joints between precast sections according to manufacturer recommendations.
   2. Remove foreign materials from joint surfaces and verify that sealing materials are placed properly.
   3. Verify that the manhole meets required alignment and grade as installation progresses.

K. Install Underdrain Geotextile over top of completely backfilled Underdrain Trench and sump and over the full extent of the Buttress footprint in accordance with Section XI Supplementary Specifications: Section 31 05 19 – Geotextiles. Ensure geotextile extends beyond edge of Buttress by 5 feet on the north and south sides. Adhere to the ground pressure requirements.
outlined in Section XI Supplementary Specifications: Section 31 05 19 – Geotextiles for equipment use over geotextiles.

L. Proceed with backfill of Buttress as outlined in the Buttress Installation article, installing additional riser sections (if necessary) and top section in the same manner outlined above (paragraph J of this article).

M. Throughout installation of Buttress, protect Groundwater Manhole and Perforated Pipe. Repair or replace any damage to these components immediately prior to proceeding with additional Work.

N. Install frame and cover.

3.5 BUTTRESS INSTALLATION

A. Do not proceed with installation over spongy or frozen materials.

B. Protect any Work previously installed.

C. Ensure subgrade is approved by ENGINEER prior to proceeding.

D. Ensure Underdrain Geotextile is properly installed over the Groundwater Trench and the full extent of subgrade of the Buttress, extending at least 5 feet beyond Buttress footprint (see article 3.4 paragraph K of this section).

E. Place and compact Underdrain Stone in two 12-inch layers to the extent depicted in the Contract Drawings. Compact each lift with four passes of a vibrating pad or drum type compactor.

F. Install Underdrain Geotextile over top of Underdrain Stone in accordance with Section XI Supplementary Specifications: Section 31 05 19 – Geotextiles. Ensure upper geotextile overlaps with previously installed geotextile at north toe of Buttress by at least 3 feet. Adhere to the ground pressure requirements outlined in Section XI Supplementary Specifications: Section 31 05 19 – Geotextiles for equipment use over geotextiles. Leave sufficient geotextile beyond south extent of Buttress to install up the side of Buttress as depicted in the Contract Drawings prior to installation of subsequent fill materials.

G. Install Fine Stone Fill and Light Stone Fill to the lines, grades, and dimensions indicated on the Contract Drawings. Ensure top of each material type is graded to facilitate the installation of the Buttress Let-Down Channel.
   1. Place stone carefully in a manner to prevent damage to underlying geotextiles and materials.
   2. Place stone in a manner that will produce a reasonable well-graded mass of stone with smaller stone fragments filling the space between larger ones, to result in the minimum practicable percentage of voids.
   3. Distribute stone so that there will be no pockets of uniform size materials.
   4. Placement not deemed acceptable by ENGINEER must be removed and replaced.

H. Install Riprap over top of Light Stone Fill and extending to toe of previously installed materials to the lines, grades, and dimensions as depicted in the Contract Drawings.
   1. Place stones carefully to avoid damage to underlying materials.
2. Distribute different size stones evenly to minimize void spaces.
3. Placement not deemed acceptable by ENGINEER must be removed and replaced.
4. Fill spaces between stones with spalls of suitable size.

I. Install Grouted Riprap over top of Light Stone Fill and extending to the toe of previously installed materials to the lines, grades, and dimensions as depicted in the Contract Drawings.
   1. Follow all requirements in NRCS Construction Specification 462 – Grouted Riprap.
   2. Place stones carefully to avoid damage to underlying materials. Distribute different size stones evenly to minimize void spaces.
   3. Place stones to provide additional energy dissipation by allowing corners and edges to protrude above the surface of grout.
   4. Placement not deemed acceptable by ENGINEER must be removed and replaced.
   5. Do not allow underlying materials to occupy space between riprap stones.
   6. Fill spaces between stones with Grout. Ensure the spaces between stones are completely filled with Grout, allowing for some protrusion of rock edges for energy dissipation.
      a. The rock riprap shall be flushed with water before placing the grout to remove the fines from the rock surfaces. The rock shall be kept moist before the grouting and without placing in standing or flowing water. The grout mix shall be delivered to the site and placed within 1.5 hours after the introduction of the cement to the aggregates. In hot weather or under conditions contributing to accelerated stiffening of the concrete, the time between the introduction of the cement to the aggregates and complete discharge of the grout batch shall be a maximum of 45 minutes. The ENGINEER may allow a longer time provided the setting time of the aggregates, loss of mortar, displacement of the rock riprap, or a combination of these.
      b. The grout shall be placed in two nearly equal applications consisting of successive lateral strips starting at the toe of the slope and progressing upward. The grout shall be delivered to the place of final deposit by approved methods and discharged directly on the surface of the rock. Prevent displacement of the rock directly under the grout discharge. The flow of grout shall be directed as needed to prevent grout from flowing excessively along the same path and to assure that all intermittent spaces are filled.
      c. Sufficient barring shall be conducted to loosen tight pockets of rock and otherwise aid in the penetration of grout to ensure the grout fully penetrates the total thickness of the rock blanket.
   7. Do not place Grout when temperature is, or is expected to be, below 40 degrees Fahrenheit.
   8. The surface finish, following the completion of grout installation, shall consist of one third of the rock extended above the level of grout. The exposed rock will not have a plastered appearance.
   9. Clean surface of stones to remove accumulated Grout.
   10. Keep surface of Grouted Riprap moist for 7 days after grouting. A suitable curing compound may be employed if approved by ENGINEER.

J. Install Groundwater Underdrain in accordance with Section XI Supplementary Specifications: Section 31 23 24 – Groundwater Underdrain.
K. Install Barrier Protection Layer on the upstream (south) face of Buttress in accordance with Section XI Supplementary Specifications: Section 31 23 26 – Barrier Protection Layer.

3.6 EXCESS MATERIAL DISPOAL

A. CONTRACTOR shall dispose of excess material and material not suitable for use onsite at an appropriate offsite disposal facility at no additional cost to the DEPARTMENT.

3.7 PROTECTION OF INSTALLED WORK

A. CONTRACTOR shall be responsible for maintaining installed materials and preventing their damage.

B. In the event of damage to prior work, CONTRACTOR shall immediately make repairs and replacements necessary to the satisfaction of the DEPARTMENT, at no additional cost to the DEPARTMENT.

END OF SECTION 31 37 16
PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Environmental requirements
   2. Materials
   3. Preparation of subgrade/base
   4. Thickness requirements
   5. Installation
   6. Compaction
   7. Tolerances
   8. Curing
   9. Cleaning

1.2 SCOPE OF WORK

A. The CONTRACTOR shall furnish and install all paving and surfacing as shown on the Contract Drawings and specified herein and dispose of all excess material.

B. All existing asphalt pavement that is removed or damaged during the construction shall be repaired and resurfaced.

C. Final surfacing of asphalt pavement shall not be performed until all excavation and backfilling which could affect the work has been completed and the heavy construction equipment is no longer required to traverse the areas of proposed asphalt pavement.

D. All permits necessary from the City, Town, County or State Highway Departments shall be obtained and paid for by the CONTRACTOR. The terms of the permit shall be adhered to as if they were a part of these Specifications.

1.3 SUBMITTALS

A. Action Submittal. Product and Design data. Submit at least 20 days prior to product delivery to site and any Work associated with products.
   1. The CONTRACTOR shall submit proof that the asphalt concrete and aggregate being supplied is from a New York State Department of Transportation (NYSDOT) approved source.
   2. The CONTRACTOR shall submit mix design with laboratory test results.
   3. The CONTRACTOR shall submit batch data on hot mix asphalt (HMA), tack coat, and joint adhesive with verification that the materials have the properties designated in the NYSDOT "Standard Specifications," latest edition.

   1. Asphalt truckload temperature logs.
2. Compaction tests.
3. Asphalt Thickness.

1.4 QUALITY ASSURANCE


B. To ensure quality control, provide copies of mix design test results for air voids and density.

C. Asphalt Ticket Requirements
   1. Immediately place delivery tickets for loads delivered to the project on a clipboard on the paving machine in a location that will avoid damage to the tickets.
   2. Tickets given to the ENGINEER after the fact will not be accepted.
   3. Each ticket shall include the following information:
      a. Name, plant number and location of the plant
      b. Name of CONTRACTOR purchasing the material
      c. Project location and number
      d. Date and time
      e. Type of mixture
      f. Maximum size of aggregate
      g. Truck number
      h. Net weight of load. Each ticket shall have the weight stamped by an automatic type register beam platform scale or marked by a bonded weighmaster.

1.5 AMBIENT CONDITIONS

A. Do not place asphalt when base surface temperature is less than 40 degrees Fahrenheit (°F), or surface is wet or frozen.

B. Do not place asphalt upper layer when air temperature is less than 50 °F.

1.6 JOB CONDITIONS

A. Do not work during freezing weather or on wet or frozen subgrade or subbase. Water, if required, may be obtained from existing facilities.

B. Protect other finished Work from splatter or spray of asphalt, etc.

C. Visit site to verify existing conditions.

PART 2 PRODUCTS

2.1 ASPHALT PAVING

A. Performance/design criteria:
   1. Produce HMA in accordance with the procedures outlined in NYSDOT’s Materials Method 5.16, Superpave HMA Mixture Design, and Mixture Verification Procedures.

B. Asphalt materials:
1. Top Course in accordance with Section 402 of the NYSDOT Standard Specifications.
2. Binder Course in accordance with Section 402 of the NYSDOT Standard Specifications.

C. Tack coat:
   1. The tack coat shall meet requirements outlined in Section 407 – Tack Coat and Section 702 – Bituminous Materials in the NYSDOT Standard Specifications.
   2. The consistency of the tack coat shall be appropriate for pumping and uniform application.

D. Subbase:
   1. Subbase meet the requirements of NYSDOT Standard Specifications 733-04.
   2. Material shall be locally derived from sources within NYSDOT Regions 4 or 5.

PART 3 EXECUTION

3.1 PREPARATION

A. Verify utilities indicated under paving are installed with excavations and trenches backfilled and compacted.

B. Check subgrade for soundness, outline and contour. Prepare subgrade for areas to be paved by excavating, removing existing, and scraping down bumps and irregularities to obtain smooth, even bed, and compacted to a dense, non-yielding condition using multiple passes of a smooth drum roller approved by the ENGINEER. Provide excavation required for Subbase Material and remove existing asphalt paving and base for new asphalt paving.

C. All unsuitable subgrade materials, including soft materials, boulders, vegetation matter and loose stones shall be removed and replaced with well compacted Subbase Material.

D. Where new paving meets existing pavement, saw-cut existing pavement and remove existing pavement minimum of 2 inches deep for application of new topping. Feather edging of topping will not be permitted. Saw-cut straight line where new pavement abuts existing.

E. Remove excavated and demolished asphalt from site.

F. Clean and dry all surfaces exposed from removal operation such that they are clean and free of dust and debris.

G. Verify that gradients and elevations of base are correct.

3.2 INSTALLATION

A. Subbase:
   1. Prepare Subbase Material in accordance with NYSDOT Standard Specifications.

B. Tack coat:
   1. Existing pavement edge and surfaces adjacent to the new work shall receive a tack coating prior to laying down the top course of new work.
   2. Uniformly apply asphalt emulsion tack coat on all existing asphalt and concrete surfaces to be paved.
3. Paving over tack coat shall not commence until emulsion has broken or is tacky when touched.

4. Coat surfaces of manhole frames with oil to prevent bond with asphalt paving. Do not tack coat these surfaces.

C. Double Course Asphalt Paving:
   1. Place asphalt Binder Course within 24 hours of applying primer or tack coat.
   2. Place Binder Course to 2-inch to 4-inch compacted thickness, as shown on the Contract Drawings, or equal to existing pavement, whichever is greater.
   3. Coordinate times for placement to allow for inspection and testing of each course.
   4. Place Top Course within 24 hours of placing and compacting Binder Course. When Binder Course is placed more than 24 hours before placing Top Course, clean surface and apply tack coat before placing Top Course.
   5. Place top course to 2-inch compacted thickness or equal to existing pavement, whichever is greater.
   6. Compact each course by rolling to specified density. Do not displace or extrude paving from position. Hand compact in areas inaccessible to rolling equipment.
   7. Perform rolling with consecutive passes to achieve even and smooth finish, without roller marks.

D. Include adjustments to manholes, valve boxes, etc., in the paving Work.

3.3 TOLERANCES

A. Flatness: Maximum variation of 1/4 inch measured with 10-foot straight edge.

B. Scheduled Compacted Thickness: Within 1/4 inch.

C. Variation from True Elevation: Within 1/2 inch.

3.4 FIELD QUALITY CONTROL

A. CONTRACTOR shall measure and record the temperature of, at a minimum, every other truckload of type 6F hot plant mix asphalt that is supplied for the project. Temperature measurement should be taken immediately after the asphalt mix is placed on the paving surface. Truckloads with asphalt below 250 °F shall be rejected and removed from the site. Provide copies of temperature logs to the ENGINEER.

B. Asphalt shall be compacted with an 8 to 10-ton roller. Field compaction of asphalt shall be 95% of design density, using a density gauge in accordance with the NYSDOT Standard Specifications.

C. Asphalt Paving Thickness: ASTM International D3549; test one core sample from every 1000 square yards compacted paving.

3.5 PROTECTION

A. Immediately after placement, protect paving from mechanical injury for 24 hours or until surface temperature is less than 140 °F.
3.6 CLEANING

A. At completion of work, remove rubbish, debris, dirt, equipment, and excess material from site. Clean adjoining surfaces that were soiled by and during course of this Work.

B. At completion of work repair or replace asphalt to meet requirements of the City and Town of Lockport.

END OF SECTION 32 12 16
SECTION 32 31 13
CHAIN LINK FENCE AND GATES

PART 1 - GENERAL

1.1 SUMMARY
A. This Section includes requirements for installation and replacement of fencing and gates.

1.2 REFERENCES
A. New York State Department of Transportation (NYSDOT) Standard Specifications

1.3 PERFORMANCE REQUIREMENTS
A. In addition to the requirements specified elsewhere in this contract, fence installation shall comply with NYSDOT Specifications Section 607.

1.4 SUBMITTALS
A. Action Submittals. Submit at least 20 days prior to product delivery to site and any Work associated with products.
   1. Product Data
   2. Shop Drawings of fence and gates, plan views and details
B. Informational Submittals. Submit at least 20 days prior to product delivery to site and any Work associated with products.
   1. Material Source: Submit name of commercial material suppliers.

PART 2 - PRODUCTS

2.1 MATERIALS
A. Chain Link Fence
   1. Chain Link Fence shall be six feet high and meet the specifications of NYSDOT Standard Specifications 607.3002 or 607.3202 Option Chain-Link Fence, Type I or Type II, with Top Rail.
B. Chain Link Fence Gates
   1. Gates shall be 6 feet tall and meet the specifications of NYSDOT Standard Specifications 607.40xx.
   2. Chain Link Fence Gates shall be installed in the following locations and lengths:
a. At the entrance of the Perimeter Access Road to access the top of the Containment Cell. This gate shall provide a minimum opening of 20 feet with double panels.
b. At the entrance to the Area 1 Site Access Road. This gate shall provide a minimum opening of 28 feet with double panels.
c. At the northwest corner of the Containment Cell to allow access to the stormwater infrastructure and to portions of the property to the north (location depicted in the Contract Drawings). This gate shall provide a minimum opening of 12 feet.

3. Chain Link Fence Gates shall have wheels to provide stability for wider frames, or truss rods and cables designed to carry the load of the gate.

C. Other Materials
1. Other materials necessary for fence and gate installation shall meet the requirements for NYSDOT Standard Specification 607.

PART 3 - EXECUTION

3.1 INSTALLATION


B. Set intermediate, terminal, and gate posts plumb, in concrete footings with top of footing 2 inches above finish grade. Slope top of concrete for water runoff.

C. Line Post Footing Depth Below Finish Grade: ASTM F567.

D. Corner, Gate and Terminal Post Footing Depth Below Finish Grade: ASTM F567.

E. Brace each gate and corner post to adjacent line post with horizontal center brace rail and 3/8 in. diagonal truss rods. Install brace rail one bay from end and gate posts.

F. Install top rail through line post tops and splice with 6-inch-long rail sleeves.

G. Install center and bottom brace rail on corner gate leaves.

H. Place fabric on outside of posts and rails.

I. Do not stretch fabric until concrete foundation has cured 28 days.

J. Stretch fabric between terminal posts or at intervals of 100 feet maximum, whichever is less.

K. Position bottom of fabric 2 inches above finished grade.

L. Fasten fabric to top rail, line posts, braces, and bottom tension wire with tie wire at maximum 15 inches on centers.

M. Attach fabric to end, corner, and gate posts with tension bars and tension bar clips.

N. Install bottom tension wire or strap stretched taut between terminal posts.
O. Support gates from gate posts.

P. Install gate with fabric to match fence. Install three hinges on each gate leaf, latch, catches, retainer and locking clamp.

Q. Provide concrete center drop to footing depth and drop rod retainers at center of double gate openings.

R. Connect to existing fence at existing line post converted to terminal post by installation of brace rails and brace rods.

END OF SECTION 32 31 13
SECTION 32 72 01
POOL ENHANCEMENT FEATURES

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes Work required to install Pool Enhancement Features.

B. Related Requirements:

1. Section XI Supplementary Specifications:
   a. Section 02 72 00 – Water Treatment
   b. Section 31 23 19 – Excavation Dewatering
   c. Section 35 60 00 – Temporary Water Diversion and Flood Contingency Planning

1.2 COORDINATION

A. Coordinate Work of this Section with backfilling activities related to restoration.

1.3 SUBMITTALS

A. Action Submittals. Submit at least 20 days prior to product delivery to site and any Work associated with products.
   1. Product Data
   2. Photographs

B. Informational Submittals. Submit at least 20 days prior to product delivery to site and any Work associated with products.
   1. Material Source: Submit name of commercial material suppliers.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Large Log:
   1. Log with rootwad attached. Log may be sourced from onsite if taken from outside of the operable units boundaries, otherwise logs must be imported.
   2. Logs shall have a bore diameter of 4 in. to 8 in. and length 4 ft. to 8 ft..
   3. Rootwad shall provide a dense ball of woody material with a minimum diameter of 2 feet and maximum diameter of 5 feet.
   4. Poplar will not be accepted.
   5. Submit photographs of proposed logs to ENGINEER for approval prior to delivery to site.
B. Small Woody Material
   1. Salvaged from the site and consisting of branches or small trees 2 in. to 4 in. in diameter and 4 to 6 ft min. in length.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Place Pool Enhancement Features at the stations indicated in the Contract Drawings.

B. Excavate to the grades necessary to install the Large Log and Small Woody Materials.

C. Place the Large Log at an elevation and angle that allows 1.5 ft maximum exposure of the rootwad above the proposed grade. Place Large Log at an angle of up to 30 degrees departure from vertical in the upstream direction, unless otherwise directed by the ENGINEER.

D. Place at least two Small Woody Materials in contact with the large log and protruding no more than 12 in. above proposed grade.

E. Backfill around the Large Log and Small Woody Material with Common Fill to the lines and grades indicated in the Contract Drawings.

3.2 PROTECTION OF INSTALLED WORK

A. CONTRACTOR shall be responsible for maintaining installed materials and preventing their damage.

B. In the event of damage to prior work, CONTRACTOR shall immediately make repairs and replacements necessary to the satisfaction of the DEPARTMENT, at no additional cost to the DEPARTMENT.

END OF SECTION 32 72 01
PART 1 - GENERAL

1.1 SUMMARY

A. DESCRIPTION

1. This work shall consist of seeding for all areas designated to receive seeding as specified in the Contract Drawings.

B. Related Sections:

1. Section X Standard Specifications:
   a. Section 01 33 00 – Submittal Procedures
2. Section XI Supplementary Specifications:
   a. Section 01 57 13 – Temporary Erosion and Sedimentation Controls
   b. Section 31 23 23 – Fill for Restoration

1.2 REFERENCES

A. New York State Department of Transportation

1. NYSDOT Standard Specifications

1.3 SUBMITTALS

A. Action Submittals. Submit at least 20 days prior to first scheduled delivery.
   1. Product Data
      a. Seed reports - mixture, percent pure live seed, minimum percent germination and hard seed, maximum percent weed seed content, date tested and state certification.
      b. Fertilizer - chemical analysis, composition percent.
      c. Mulch - chemical analysis, composition percent.
      d. Other Product data, manufacturer’s specifications and recommended application rates shall be submitted and approved prior to scheduling delivery

B. Informational Submittals. Submit at least 20 days prior to first scheduled delivery.
   1. Delivery schedule of all materials.
   2. Manufacturer’s Certificates

C. Informational Submittals. Submit prior to completion of seeding for each area.
   1. Written calendar time period for the Vegetative Establishment Period. When there is more than one Vegetative Establishment Period, describe the boundaries of the turfed area covered for each period.
1.4 DELIVERY, INSPECTION, STORAGE, AND HANDLING

A. Delivery schedule shall be prepared for all materials and submitted to ENGINEER.
B. Materials will be inspected upon arrival by ENGINEER for conformance to specifications.
C. Materials will be stored in areas approved by ENGINEER.
D. Seed, limestone, and fertilizer will be stored in cool, dry locations away from contaminants.
E. Chemical treatment materials will not be stored with other landscape materials.
F. Except for bulk deliveries, materials will not be dropped or dumped from vehicles.

1.5 GUARENTEE

A. Vegetative growth shall be guaranteed for one year from the date of final completion.
B. At the end of the guarantee period, any dead, unhealthy, or badly impaired areas shall be replaced.
C. All replacements shall be in kind and at no additional cost to the DEPARTMENT.

1.6 SCHEDULING

A. Sow grass seed in accordance with NYSDOT Standard Specifications requirements of Table 610-1 Sodding Seasons for NYSDOT Region R5, unless otherwise approved by ENGINEER.
B. Weather Limitations: Proceed with planting only when existing and forecasted weather conditions permit planting to be performed when beneficial and optimum results may be obtained. Apply products during favorable weather conditions according to manufacturer's written instructions.
C. If permanent seeding cannot be completed within the dates specified in NYSDOT Standard Specifications requirements of Table 610-1 Sodding Seasons for NYSDOT Region R5, install temporary seed and mulch in accordance with NYSDOT Standard Specifications 209-3.03. If neither permanent nor temporary seeding can be installed within the recommended seeding periods, use temporary mulching or erosion control blanketing to protect the site and delay seeding until the next recommended seeding period.

PART 2 - PRODUCTS

2.1 SEED

A. State-approved seed of the latest season’s crop shall be provided in original sealed packages bearing the producer’s guaranteed analysis for percentages of mixture, purity, germination, hard seed, weed seed content, and inert material.
B. Labels shall be in conformance with AMS-01 and applicable state seed laws.

C. Seed mixtures shall meet the requirements of NYSDOT Standard Specifications Section 713-04.

D. Seed Mixtures
   1. Upland Seed Mix for Upland Planting Zone and all other disturbed areas shall meet NYSDOT Standard Specification requirements for Lawn Seed Mix defined in Section 713-04.
      a. All species and their cultivars or varieties must be disease and insect resistant, not considered noxious or invasive, guaranteed hardy and adapted for the locality, and among the top 25% of commercially-available seed types as rated by NTEP (National Turfgrass Evaluation Program). Approved manufacturers: https://www.dot.ny.gov/divisions/engineering/technical-services/technical-services-repository/alme/pages/71304.pdf
   2. Temporary Seed Mix
      a. See Section XI Supplementary Specifications: Section 01 57 13 – Temporary Erosion and Sedimentation Controls
   3. Low Terrace Seed Mix as specified in the Contract Drawings to be applied in Live Stake Planting Zone and Low Terrace Planting Zone.
   4. High Terrace Seed Mix as specified in the Contract Drawings to be applied in High Terrace Planting Zone.

E. Weed seed shall not exceed one percent by weight of the total mixture.

F. Wet, moldy, or otherwise damaged seed shall be rejected.

2.2 MULCH FOR TURF ESTABLISHMENT AND EROSION CONTROL

A. Mulch for turf establishment and erosion control shall meet NYSDOT Standard Specification requirements for either Type I Wood Fiber Mulch, Type II Cellulose Mulch, Type III Cellulose and Wood Fiber Mulch Blend, Type IV Cotton Hydro Mulch, or Type V Pelletized Hydro Mulch defined in NYSDOT Standard Specifications Section 713-11.

2.3 WATER

A. Water shall meet NYSDOT Standard Specification requirements defined in Section 712 01.

2.4 FERTILIZER

A. Fertilizer shall meet NYSDOT Standard Specification requirements defined in Section 713-03 and be “OMRI Listed” indicating that the product is approved by OMRI for use as an organic input.
2.5 LIMESTONE

A. Limestone shall meet NYSDOT Standard Specification requirements defined in Section 713-02 and be “OMRI Listed” indicating that the product is approved by OMRI for use as an organic input.

2.6 MYCORRHIZAL FUNGI

A. Mycorrhizal Fungi shall meet NYSDOT Standard Specification requirements defined in Section 713-09 and be “OMRI Listed” indicating that the product is approved by OMRI for use as an organic input.

2.7 PESTICIDES

A. Pesticides shall meet NYSDOT Standard Specification requirements defined in Section 713-13 and be “OMRI Listed” indicating that the product is approved by OMRI for use as an organic input.

PART 3 - EXECUTION

3.1 SEEDING CONDITIONS

A. Seed operations shall be performed only during periods when beneficial results can be obtained.

B. When drought, excessive moisture or other unsatisfactory conditions prevail, the work shall be stopped when directed by the ENGINEER.

C. When special conditions warrant a variance to the seeding operations, proposed times shall be submitted to and approved by the ENGINEER.

3.2 SITE PREPARATION

A. Fertilization shall be performed in accordance with NYSDOT Standard Specification Section 610-3.06 – Soil Amendments. Do not apply fertilizer for Low Terrace Seed Mix or High Terrace Seed Mix.

B. Distribute fertilizer evenly over the surface of the soil in areas to be seeded as shown on the Contract Drawings or as directed by the ENGINEER. Fertilize with 600 pounds of 10-10-10 (N-P2O5-K2O) per acre (14 pounds per 1,000 square feet). Any application method that will ensure an even distribution will be acceptable. When hydraulic application is used the minimum rate of water shall be 500 gallons per acre or as directed by the ENGINEER.

C. Tillage

1. Soil on slopes gentler than 3H:1V (horizontal to vertical) shall be tilled to a minimum depth of 4 inches.
2. On slopes between 3H:1V and 1H:1V, the soil shall be tilled to a minimum depth of 2 inches by scarifying with heavy york rakes or other method.
3. Rototillers shall be used where soil conditions and length of slope permit.
4. On slopes 1H:1V and steeper, no tillage is required.

3.3 SEEDING

A. Seeding shall be performed in accordance with NYSDOT Standard Specification Section 610 – Ground Vegetation – Preparation, Establishment and Management.

B. Do not seed when the wind velocity exceeds 5 miles per hour.

C. Application rate:
   1. Upland Seed Mix: 35 lbs per acre.
   2. Temporary Seed:
      a. Ryegrass: 30 lbs per acre
      b. Certified ‘Aroostook’ Winter Rye: 100 lbs per acre.
   3. Low Terrace Seed Mix: 20 lbs per acre.
   4. Terrace Seed Mix: 20 lbs per acre

D. For dry application, sow seed evenly by hand or seed spreader on dry or moderately dry soil.

E. Immediately after seeding, the area shall be protected against traffic or other use by providing signage or barriers as required, or as directed by the ENGINEER.

F. Hydroseeding:
   1. Apply seeding materials with an approved hydroteeder.
   2. Fill tank with water and agitate while adding seeding materials.
   3. Use sufficient fertilizer, mulch, and seed to obtain the specified application rate.
   4. Add seed to the tank after the fertilizer and mulch has been added.
   5. Maintain constant agitation to keep contents in homogeneous suspension.
   6. Prolonged delays in application or agitation that may be injurious to the seed will be the basis of rejection of the material remaining in the tank.
   7. Distribute uniformly a slurry mixture of water, seed, fertilizer, and mulch at a minimum rate of 57 gallons per 1000 square feet (2500 gallons per acre).
   8. The DEPARTMENT may order the amount of water increased if distribution of seeding materials is not uniform.

3.4 MULCHING

A. Mulching shall be performed in accordance with NYSDOT Standard Specification Section 610 – Ground Vegetation – Preparation, Establishment and Management.

B. Mulching is not required where the Natural Erosion Control Blanket is installed in accordance with Section XI Supplementary Specifications: Section 31 23 23 – Fill for Restoration.

C. Dry application:
1. Within 3 days after seeding, cover the seeded areas with a uniform blanket of straw mulch at the rate of 100 pounds per 1,000 square feet of seeded area.

D. Hydro application:

1. Apply approved mulch in accordance with manufacturer’s written instructions and recommended rates of application.

3.5 RESTORATION AND CLEANUP

A. Existing seeded areas, pavements and facilities that have been damaged from the seeding and mulching operations shall be restored to original condition at CONTRACTOR’S expense.

B. Excess and waste material shall be removed from the planting operation and shall be disposed of offsite.

C. Adjacent paved areas shall be cleaned.

D. Debris removed from the soil surface during the finished grading operations shall be disposed on-site as directed by the ENGINEER.

3.6 PROTECTION OF TURFED AREAS

A. Immediately after seeding, the area shall be protected against traffic or other use by erecting barricades and providing signage as required.

3.7 SATISFACTORY STAND OF VEGETATIVE COVER

A. Planted areas shall be cared for in accordance with NYSDOT Standard Specification requirements of Section 611-3.05 – Post-Planting Care.

B. Areas compacted from equipment during watering events shall be repaired and soil density shall be reduced to approximate surrounding soil density.

C. Control growth of weeds. Apply herbicides to turf grass seeded areas. Remedy damage resulting from improper use of herbicides. Manually or mechanically remove weeds from native and no mow low grow areas or complete weed removal by other methods in these areas as approved by DEPARTMENT. High-deck mowing may be necessary in areas with excessive weeds. Do not apply herbicides to Low Terrace or High Terrace seeded areas.

D. Control pests that may hinder vegetation establishment.

E. Immediately reseed and water areas showing bare spots.

F. Repair washouts or gullies.

G. Vegetation Establishment Period execution shall continue until all the following conditions are met:

1. Vegetative cover is established over 95 percent of seeded areas.
2. Not more than 5 percent of areas with bare spots larger than 1 square foot.
3. Less than 15 percent invasive species are present within areas vegetated by CONTRACTOR.
4. Written approval by ENGINEER.

3.8 MAINTENANCE

A. Maintenance of the seeded areas shall include eradicating weeds, eradicating diseases and insects, protecting embankments and ditches from erosion, maintaining erosion control materials and mulch until growth is satisfactorily established, protecting turfed areas from traffic and mowing to maintain turf stand, watering and post fertilization.

B. Mow entire seeded area once to a height of 6 inches after final completion during the guarantee period when the stand of grass is between 12 and 24 inches in height.

C. Watering shall be at intervals to obtain moist soil condition to a minimum depth of 1 inch. Frequency of watering and quantity of water shall be adjusted in accordance with the growth of the vegetation. Runoff, puddling and wilting shall be prevented.

D. Nitrogen carrier fertilizer shall be applied at the rate of no more than 0.5 pounds per 1000 square feet after the first month and again prior to the final acceptance. The application shall be timed prior to the advent of winter dormancy and shall avoid excessively high nitrogen levels. Notify ENGINEER at least one week prior to application. Do not apply fertilizer to Low Terrace or High Terrace seeded areas.

E. The CONTRACTOR shall re-establish as specified herein, eroded, damaged or barren areas. Mulch shall be repaired or replaced as required.

END OF SECTION 32 92 19
PART 1 - GENERAL

1.1 SUMMARY

A. This Section specifies the requirements for establishing landscape plantings over final soil surfaces, including planting, fertilizing, mulching, and vegetation establishment period. Requirements for pre-construction testing, construction testing, and reference to post-excavation and final surface surveys.

B. This Section is to be used with the requirements contained in all other sections, including the related sections listed below. The CONTRACTOR shall provide all labor, materials, equipment, and incidentals to complete the work specified in this Section.

C. Related Sections:

1. Section X Standard Specifications
   a. Section 01 33 00 – Submittal Procedures
   b. Section 01 73 00 – Field Engineering

2. Section XI Supplementary Specifications
   a. Section 31 23 23 – Fill for Restoration
   b. Section 32 92 19 – Seeding

1.2 REFERENCES

A. New York State Department of Transportation

1. NYSDOT Standard Specifications

1.3 SUBMITTALS

A. Action Submittals. Submit at least 20 days prior to product delivery to site and any Work associated with products.
   1. Product Data

B. Informational Submittals. Submit at least 20 days prior to product delivery to site and any Work associated with products.
   1. Plant Suppliers

C. DELIVERY, STORAGE, AND HANDLING

D. Plants

1. Protect and maintain plant life until planted.
2. Deliver plants immediately prior to placement. Keep plants moist.
3. Plant material damaged as a result of delivery, storage, or handling will be rejected.
4. Bare root plants shall be heeled-in and maintained in moist soil or other suitable material until planted.
5. Plants being transported to and from the planting area shall have their roots protected from drying by means of covering with canvas, burlap, or straw and shall be kept moist.

1.4 ENVIRONMENTAL REQUIREMENTS

A. Do not install plants or seed when ambient temperatures may drop below 35 degrees F or rise above 90 degrees F.

B. Do not install plants or seed immediately following rain, when ground is too dry, or when winds are over 12 miles per hour.

1.5 GUARANTEE

A. Vegetative growth shall be guaranteed for one year from the date of final completion.

B. At the end of the guarantee period, any dead, unhealthy, or badly impaired areas shall be replaced.

C. All replacements shall be in kind and at no additional cost to the DEPARTMENT.

1.6 PERFORMANCE REQUIREMENTS

A. The CONTRACTOR is ultimately responsible for the means and methods of installation of the materials and structures outlined in this section. All guidance provided is the best recommendation of the ENGINEER. The CONTRACTOR shall institute means, and methods as required, to meet the goals and performance criteria specifications outlined herein.

PART 2 - PRODUCTS

2.1 PLANTS

A. See planting details on Contract Drawings for planting schedule, including plant species, quantities, units, and sizes.

B. The plant species shown on the Planting Schedule may be unavailable from standard landscape nurseries. The CONTRACTOR shall make arrangements with competent native plant supply sources to ensure a supply of the required materials. Source of supply for all plant materials shall be submitted to the DEPARTMENT representative 20 days prior to planting.

C. All plants shall be sourced from stock grown within a 100-mile radius of the project site, acclimated to the climate of New York and grown from naturally occurring ecotypes in the region. Substitutions to plant species, type, size, and origin may only be made at the approval of the DEPARTMENT.
D. Plants shall meet NYSDOT Standard Specifications requirements for Trees, Shrubs, and Vines defined in Section 713-06.

E. Planting Stock: Label individual plants or each bundle of plants when tied in bundles.

1. All plants shall be well-branched, with vigorous and balanced root and top growth, free from disease, injurious insects, mechanical wounds, broken branches, decay, or other defects. Plants shall be grown in climatic conditions similar to those in locality of the work.
2. Trees shall be furnished with reasonably straight trunks, well balanced tops, and single leader.

F. Upland Planting Zone

1. Include plant species, type, size, spacing, and quantities as listed in the Contract Drawings.
2. Seed in accordance with Section XI Supplementary Specifications: Section 32 92 19 – Seeding.

G. Low Terrace Planting Zone

1. Include plant/plug species, type, size, spacing, and quantities as listed in the Contract Drawings.
2. Seed in accordance with Section XI Supplementary Specifications: Section 32 92 19 – Seeding.

H. High Terrace Planting Zone

1. Include plant species, type, size, spacing, and quantities as listed in the Contract Drawings.
2. Seed in accordance with Section XI Supplementary Specifications: Section 32 92 19 – Seeding.

I. Live Stake Planting Zone

1. Include plant species, type, size, spacing, and quantities as listed in the Contract Drawings.
2. Seed in accordance with Section XI Supplementary Specifications: Section 32 92 19 – Seeding.

J. Open Water Planting Zone

1. Include plant species, type, size, spacing, and quantities as listed in the Contract Drawings.

2.2 SEED MIXES

A. See Section XI Supplementary Specifications: Section 32 92 19 – Seeding.
2.3 ACCESSORIES

A. Mulch for planting shall meet NYSDOT Standard Specifications requirements for either Type A Seasoned Wood Chips, Type B Recycled or Green Wood Chips, Type C USDA-APHIS Protocol Wood Chips, Type D Shredded Bark Mulch, or Type E Pine Bark Chunks or Nuggets defined in Section 713-05.

B. Pesticides: See Section XI Supplementary Specifications: Section 32 92 19 – Seeding.

C. Materials for Protecting Plants including stakes for supporting trees, wire, hose, straps for protecting tree bark, anti-desiccants, and portable drip irrigation systems shall meet NYSDOT Standard Specifications requirements defined in Section 713-08.

D. Tree tubes for deer protection shall be Tubex Combitube 4 ft or equivalent. Bird netting should be included.

E. Tree wrap shall be DeWitt Tree Wrap or equivalent.

2.4 SOIL AMENDMENT MATERIALS

A. When soil tests indicate soil amendment is required, apply soil conditioners or fertilizers to amend soil to specified conditions.

B. Amendment Materials: See Section XI Supplementary Specifications: Section 32 92 19 – Seeding. Amendments shall be “OMRI Listed” indicating that the product is approved for use as an organic input.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Comply with all local, state, and federal regulations.

3.2 PERPARATION

A. Verify prepared topsoil is ready to receive the work of this section. ENGINEER shall approve topsoil prior to planting or seeding.

B. Planting operations shall be performed only during periods when beneficial results can be obtained. When drought, excessive moisture, or other unsatisfactory conditions prevail, the work shall be stopped. When special conditions warrant a variance to the seeding operations, proposed times shall be submitted to and approved by the ENGINEER.

3.3 FERTILIZING

A. Application shall be in accordance with NYSDOT Standard Specifications requirements of Section 610-3.06 – Soil Amendments.
B. Apply fertilizer at application rate recommended by the test results and as required to produce topsoil capable of sustaining vigorous plant growth.

C. Apply after smooth raking of topsoil.

D. Do not apply fertilizer at same time or with same machine used to apply seed. Apply fertilizer before seed.

E. Do not apply fertilizer to Live Stake Planting Zone, Low Terrace Planting Zone, High Terrace Planting Zone, Open Water Planting Zone, or within 50 feet of the Gulf Creek, Gulf Creek Tributaries, or wetland.

F. Lightly water soil to aid dissipation of fertilizer. Irrigate top level of soil uniformly.

3.4 SEEDING

A. See Section XI Supplementary Specifications: Section 32 92 19 – Seeding.

3.5 MULCH

A. See Section XI Supplementary Specifications: Section 32 92 19 – Seeding.

3.6 PLANTING

A. Planting shall be in accordance with NYSDOT Standard Specifications requirements of Section 611-3.02 – Planting.

B. Locations of planting zones and individual containerized plants may require adjustments in the field to adapt to on-the-ground conditions, water levels, and other conditions to ensure survivability and long-term health. DEPARTMENT, ENGINEER, and CONTRACTOR shall evaluate all planting zones prior to performing work to confirm locations. No planting operations shall proceed without approval from the DEPARTMENT and ENGINEER.

C. Date of application:

1. Plugs and Live Stakes: April 10 to October 1
2. Trees and Shrubs: Shall be in accordance with NYSDOT Standard Specifications requirements of Table 611-1 Planting Seasons for U.S. Department of Agriculture Region 4a-5a.

D. Place plants as indicated in the Contract Drawings.

E. The Live Stake Planting Zone contains live stakes to be stored and installed in the following manner:

1. Accept delivery of live stakes in good condition and immediately store under cover of tarpaulin or other protective cover in a storage site with uniformly cool conditions.
2. Maintain storage of live stakes under cool, moist cover so that temperature is maintained at 34 to 40 degrees Fahrenheit. Spray live stakes with water to maintain relative humidity over 60 percent or immerse in water.
3. Complete installation of live stakes within 21 days after the harvest date.
4. Ensure that live stake cuts are smooth and cleanly remove side branches and brushy limbs.
5. Scarify live stake along the bottom two-thirds of its length so that approximately 20 percent of the bark is abraded. Discard live stakes that have been girdled.
6. Cut the bottom of the live stake at a 30 to 45 degree angle for easy insertion into soil.
7. Cut the top of the live stake at a 90 degree angle to ensure a flat surface for tamping into soil.
8. Install when the soil is not frozen and when soil moisture and weather conditions are suitable. Cease operations when conditions are unsuitable.
9. Layout locations for live stakes at the spacing shown in the Contract Drawings.
10. Use a rebar stake or other approved method to make a pilot hole at approximately 45 degree angle into firm soil, so that tops of the live stake will be point downstream when installed.
11. Orient buds of each live stake upwards and insert live stake into pilot hole.
12. Gently tamp live stake into the soil with a hammer and wood block, dead blow hammer or a rubber mallet, so that 80 percent of the live stake is installed below soil level and at least two buds are above the soil surface.
13. Replace any live stakes that are split or severely damaged during installation.
14. Backfill, pack, and firm the soil around each live stake and trim damaged tops.
15. Immediately apply water to the soil of the installed live stakes to ensure the soil is uniformly moistened. Apply water with sprayers, sprinklers, or hoses so that water is gently applied to prevent damage to live stakes and soil disturbance.

F. The Open Water Planting Zone contains plugs to be installed in the following manner:

1. Plant in a triangle planting pattern at the spacing indicated on the Contract Drawings.
2. Use an auger or other appropriate tool to excavate planting holes. Evenly distribute plant species throughout the designated planting zones. Place plants in informal drifts of 3 to 7 plants of any one species with edges blended into adjacent species to avoid a formal appearance.
3. Plant plugs level with soil grade. Place soil around plugs and firmed into place. Do not fill around plugs with mulch.
4. Plug planting zones shall overlap with adjacent Low Terrace Planting Zone by 2 horizontal feet.
5. Planting grids shall overlap between all planting zones.
6. Thoroughly soak planting area with water until soil is moist to a depth of 4 inches.
7. Care shall be taken during backfilling, soil compressing, and watering to avoid injuring the roots.

G. The Low Terrace, High Terrace, and Upland Planting Zones contain containerized plants to be installed as depicted in the Contract Drawings and in the following manner. Exact location of individual containerized plants may be adjusted for best appearance with approval of the ENGINEER.

1. Use an auger or other appropriate tool to excavate planting holes to depth indicated in the Contract Drawings.
2. Containers shall be removed from the root mass and fibrous roots loosened around the perimeter of the ball to eliminate possible root-bound conditions.

3. Place plants into planting holes vertically leaving the minimum distance indicated in the Contract Drawings between the plant and the bottom of excavation, backfill with amended topsoil/cuttings, and lightly compress soil backfill to eliminate major air pockets.

4. Soil shall be saturated with water during the planting process to settle soil, eliminate air pockets, and to provide initial water for the plants.

5. Care shall be taken during backfilling, soil compressing, and watering to avoid injuring the roots.

6. Wrap tree trunks and place deer protection.

3.7 PROTECTION

A. Immediately after planting, trees, shrubs, and plugs shall be protected against traffic or other disturbance.

3.8 VEGETATION ESTABLISHMENT PERIOD

A. Planted areas shall be cared for in accordance with NYSDOT Standard Specification requirements of Section 611-3.05 – Post-Planting Care.

B. Areas compacted from equipment during watering events shall be repaired and soil density shall be reduced to approximate surrounding soil density.

C. Control growth of weeds. Apply herbicides to turf grass seeded areas. Remedy damage resulting from improper use of herbicides. Manually or mechanically remove weeds from native and no mow low grow areas or complete weed removal by other methods in these areas as approved by DEPARTMENT. High-deck mowing may be necessary in areas with excessive weeds. Do not apply herbicide to Open Water, Live Stake, Low Terrace, or High Terrace Planting Zones.

D. Control pests that may hinder vegetation establishment.

E. Immediately reseed and water areas showing bare spots.

F. Repair washouts or gullies.

G. Vegetation Establishment Period execution shall continue until all of the following conditions are met:

1. Minimum watering events have been completed.
2. Vegetative cover is established over 95 percent of seeded areas.
3. Not more than 5 percent of areas with bare spots larger than 1 square foot.
4. Less than 15 percent invasive species are present within areas vegetated by CONTRACTOR.
5. Greater than 75 percent of planted trees and shrubs showing sprouting and/or leaf production.
6. Written approval by ENGINEER.
END OF SECTION 32 93 00
PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Precast concrete vault structure with tongue-and-groove joints and masonry transition to cover frame, covers, anchorage, and accessories for the GAC Vault associated with the Gulf Creek Seep.

1.2 REFERENCES

A. ASTM International:
   2. ASTM C443 - Standard Specification for Joints for Concrete Pipe and Manholes, Using Rubber Gaskets
   3. ASTM C497 - Standard Test Methods for Concrete Pipe, Manhole Sections, or Tile.

1.3 SUBMITTALS

A. Section X Standard Specifications: Section 01 33 00 - Submittal Procedures.

B. Product Data (Action Submittal):
   1. Submit data for vault structure, component construction, features, configuration, and dimensions.

C. Shop Drawings (Action Submittal):
   1. Indicate structure locations and elevations.
   2. Indicate sizes and elevations of piping, penetrations.
   3. Field measurements for the vault structure to verify dimensions. The field measurements must be submitted prior to order the manholes and structures from a vendor.

D. Manufacturer's Certificate (Informational Submittal): Certify that products meet or exceed specified requirements.

E. Manufacturer Instructions (Informational Submittal): Submit detailed instructions on installation requirements, including storage and handling procedures.

F. Field Quality-Control Submittals (Informational Submittal): Indicate results of CONTRACTOR-furnished tests and inspections.
1.4 DELIVERY, STORAGE, AND HANDLING

A. Inspection: Accept materials on Site in manufacturer's original packaging and inspect for damage.

B. Comply with precast concrete manufacturer's instructions for unloading, storing, and moving precast manholes.

C. Storage:
   1. Store precast concrete manholes and drainage structures to prevent damage to public or private property.
   2. Repair property damaged from materials storage.

D. Cold Weather Requirements: Comply with ACI 530/530.1.

PART 2 PRODUCTS

2.1 MANHOLE FRAMES AND COVERS

A. Manufacturer:
   1. Manhole frames and covers shall be gray iron castings similar to EJ 1022 - 7” Tall Bolted and Gasketed Watertight L1 Manhole Assembly.

B. Description:
   2. Lid:
      a. Machined flat bearing surface.
      b. Removable.
   3. Cover Design: Closed.
   4. Nominal Lid
   5. Size: as shown on Contract Drawings.
   6. Rims shall be set flush with surrounding grade of GAC Vault Structure. Manufacturer's drawings of all castings which the CONTRACTOR proposes to use shall be submitted to the ENGINEER and approved prior to the castings being ordered for the work.

2.2 MONITORING WELL FRAMES AND COVERS

A. Manufacturer:
   1. Monitoring well lids and rims shall be ductile iron with polyethylene skirt similar to EMCO Wheaton 8” x 8” Ductile Bolt Down.

B. Description:
   1. Construction: Painted ductile iron lid and rim; polyethylene skirt
   2. Lid: Bolt-down
   3. Cover Design: Closed.
   4. Cover: Molded with “OBSERVATION MONITORING WELL.”
   5. Nominal Lid
7. Rims shall be set flush with surrounding grade on GAC vault. Manufacturer's drawings of all castings which the CONTRACTOR proposes to use shall be submitted to the ENGINEER and approved prior to the castings being ordered for the work.

8. Watertight manhole covers shall be used wherever the manhole tops may be flooded. See notes on Contract Drawings.

2.3 ACCESSORIES

A. Steps:
1. Rungs: Formed polypropylene or other approved material meeting requirements of the Occupational Safety and Health Standards, U.S. Department of Labor and tested in accordance with ASTM C497.
2. Strength: Must meet pullout load of 400 lbs. and vertical load of 800 lbs.
3. Dimensions:
   a. As indicated on Contract Drawings.
4. Spacing:
   a. As indicated on Contract Drawings.

B. Well Screen:
1. As indicated on Contract Drawings

2.4 GAC VAULT STRUCTURE

A. Vaults:
1. Precast reinforced 4-side concrete vault conforming the exterior dimensions as shown in the Contract Drawings.
2. Joints for Precast Vaults:
   a. Conforming to ASTM C913.
   b. Maximum Leakage: 0.025 gallon per hour per foot of joint at 3-foot of head.
3. The CONTRACTOR shall submit to the ENGINEER for approval, details of GAC Vault Structure. No lifting holes will be allowed.
4. The bottom or floor of the monolithic precast base shall have a minimum thickness of eight inches, and shall project no less than six inches beyond the outside walls of the monolithic precast base to form a flange or annular footing intended to resist uplift.
5. The lowest edges of holes of cutouts for influent and effluent pipes shall be as shown on the Contract Drawings.
6. At the points where influent and effluent pipes are connected to the monolithic precast vault, the annular spaces between the pipes and holes shall be sealed with assemblies consisting of rubber gaskets or links mechanically compressed to form watertight barriers. Such sealing assemblies shall be: LINK-SEAL® consisting of solid synthetic rubber links connected to each other with heavy, elongated washers, bolts and nuts, as manufactured by the Thunderline Corporation of Wayne, Michigan, pipe boot, or approved equal. After installation, metal parts of the above assemblies that are accessible from inside the vaults shall be coated with compound as specified for manhole barrel joints.

B. Reinforcement:
1. Per manufacturer recommendations for standard pre-cast vault.

C. Shape: Rectangular.
D. Exterior Dimensions:
   1. As indicated on Contract Drawings.
E. Design Depth:
   1. As indicated on Contract Drawings.
F. Clear Cover Opening:
   1. As indicated on Contract Drawings.
G. Pipe Entry: Furnish openings as indicated on Contract Drawings.
H. Joints:
   1. The joints shall be concrete with a confined "O" ring, neoprene gasket in accordance with the latest ASTM Specification C443.
   2. In addition to the neoprene gasket, each joint shall be buttered prior to assembly with an approved joint compound such as "DeWitt's No. 10," Duraseal 3101, Pioneer 301, or other equal compound. The excess shall be troweled off on the inside and some excess shall be placed on the outside and covered with a 6-inch wide band of Kraft paper, all as shown on the Contract Drawings.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify that items provided by other Sections of Work are properly sized and located.
B. Verify that built-in items are in proper location and are ready for roughing into Work.
C. Verify correct size of structure excavation.
D. Verify correct size, orientation, and excavation of GAC vault.

3.2 PREPARATION

A. Coordinate placement of influent and effluent pipes as indicated on Contract Drawings.
B. Inspect precast concrete manholes and structures immediately prior to placement in excavation to verify that they are internally clean and free from damage; remove and replace damaged units.

3.3 INSTALLATION

A. Excavation and Backfill:
   1. Excavate for structures as specified in Section XI Supplementary Specifications: Section 31 23 16 – Excavation and in locations and depths indicated on Contract Drawings.
   2. Provide clearance around sidewalls of manhole or structure for construction.
   3. If groundwater is encountered, prevent accumulation of water in excavations; place structure in dry trench.
   4. Where possibility exists of watertight structure becoming buoyant in flooded excavation, anchor structure to avoid flotation, as approved by ENGINEER.
B. Install structure supported at proper grade and alignment on Bedding Material as indicated on Contract Drawings.

C. Backfill around structure in accordance with manufacturer’s recommendation.

D. Form and place structure plumb and level, to correct dimensions and elevations.

E. Fit for pipe as indicated on Contract Drawings.

F. Set cover frames and covers level to correct elevations without tipping.

G. Precast Concrete Structure:
   1. Lift precast components at lifting points designated by manufacturer.
   2. When lowering structure into excavation and joining pipe to unit, take precautions to ensure that interior of pipeline and structure remains clean.
   3. Set precast structure, bearing firmly and fully on Bedding Material, compacted as indicated on Contract Drawings.
   4. Verify that installed manholes and structures meet required alignment and grade.
   5. Remove knockouts or cut structure to receive piping without creating openings larger than required to receive pipe; fill annular spaces with mortar.
   6. Cut pipe flush with interior of structure.
   7. Shape inverts through manhole and structures as indicated on Contract Drawings.

3.4 FIELD QUALITY CONTROL

A. Section XI Supplementary Specifications: Section 01 40 00 - Quality Requirements: Requirements for inspecting and testing.

END OF SECTION
SECTION 33 05 32
GAS VENTS

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the CONTRACTOR requirements for the installation of the Gas Vents as a component of the Containment Cell Cap and extension of existing Gas Vents in the Lockport City Landfill through the Lockport City Landfill Sediment Cell (LCLSC).

B. The Gas Vent Work to be done and paid for shall not be limited to the extent described herein but shall include all incidental work necessary for the completion of the work. The CONTRACTOR’s Work Plan shall describe the selected means and methods for this work.

C. Related Sections:
   1. Section XI Supplementary Specifications:
      a. Section 31 05 20 – Geosynthetic Clay Liner
      b. Section 31 05 21 – Geomembrane Barrier
      c. Section 31 05 22 – Geocomposites
      d. Section 31 23 25 – Sand Gas Venting Layer

1.2 REFERENCES

A. ASTM International
   1. ASTM D1784 – Standard Classification System and Basis for Specification for Rigid Poly(Vinyl Chloride) (PVC) Compounds and Chlorinated Poly(Vinyl Chloride) (CPVC) Compounds
   2. ASTM D1785 – Standard Specification for Poly(Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80, and 120

B. New York State Department of Transportation
   1. NYSDOT Standard Specifications

1.3 SUBMITTALS

A. Action Submittals. Submit at least 20 days prior to product delivery to site and any Work associated with products.
   1. Product Data

B. Informational Submittals. Submit at least 20 days prior to product delivery to site and any Work associated with products.
1. Material Source: Submit name of commercial material suppliers.
2. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

1.4 ENVIRONMENTAL REQUIREMENTS

A. Do not install fill materials in wind in excess of 10 mph or during inclement weather including rain and snow. Do not install fill materials when frozen. Do not install fill materials over subgrade that is muddy, frozen, or contains frost.

B. Earthwork activities shall be suspended when satisfactory results cannot be obtained because of rain, freezing temperatures, moisture content, or other unsatisfactory conditions in the field.

PART 2 - PRODUCTS

2.1 MATERIALS

A. #1 Crushed Stone or Gravel:
   1. #1 Crushed Stone or Gravel shall meet the requirements of NYSDOT Standard Specifications 703-0201 or 703-0202 #1 Crushed Stone or Gravel.
   2. Material shall be locally derived from sources within NYSDOT Regions 4 or 5.

B. Gas Vent Geotextile:
   1. See Section XI Supplementary Specifications: Section 31 05 19 – Geotextiles.

C. PVC Pipe and Fittings:
   1. PVC Piping shall meet the requirements of ASTM D1784 and ASTM D1785 Schedule 80.
   2. Inside Nominal Diameter: 6 inches.
   3. End Connections: Bell and spigot, solvent sealed.
   4. Slotted pipe shall have a slot size of 0.120 inch and a net open area of 36 square inches per linear foot of pipe.
   5. PVC fittings shall be Schedule 80 PVC in accordance with ASTM D2467.
   6. PVC Primer and solvent cement shall be in accordance with ASTM D2564.

PART 3 - EXECUTION

3.1 INSTALLATION OF CONTAINMENT CELL GAS VENTS

A. Complete installation of the Sand Gas Venting Layer in accordance with Section XI Supplementary Specifications: Section 31 23 25 – Sand Gas Venting Layer.

B. Excavate sand from the Sand Gas Venting Layer to the lines and grades necessary to install the gas vent trenches.

C. Install the Gas Vent Geotextile in accordance with Section XI Supplementary Specifications: Section 31 05 19 – Geotextiles around the edge of the trench leaving sufficient material exposed to fold over the top of the trench once installation is complete.
D. Install 3 inches of #1 Crushed Stone or Gravel along the bottom of the trench.

E. Install the piping and fittings with the pitch indicated in the Contract Drawings. Follow all manufacturer instructions for pipe installation and joints. Ensure pipe lays on good, firm material.

F. Install #1 Crushed Stone or Gravel to fill the remainder of the trench excavation and wrap the geotextile over the top.

G. Install pipe penetrations through the Geosynthetic Clay Liner, Geomembrane, and Geocomposite in accordance with Section XI Supplementary Specifications: Sections 31 05 20 – Geosynthetic Clay Liner, 31 05 21 – Geomembrane Barrier, and 31 05 22 – Geocomposites.

H. Ensure pipe extends a minimum of 4 feet above final grade and install 180 degree elbow with bird and insect screen.

3.2 INSTALLATION OF LOCKPORT CITY LANDFILL SEDIMENT CELL GAS VENT EXTENSIONS

A. For gas vent extensions, cut existing gas vents below elbow and install slotted piping and fittings to the height required based on final grades shown on the Contract Drawings.

B. Install #1 Crushed Stone or Gravel surrounding slotted pipe followed by fill placement and compaction in accordance with Section XI Supplementary Specifications: Section 31 32 00 – Sediment Processing in 1 ft lifts. Protect stone with Gas Vent Geotextile prior to fill placement, as shown on the Contract Drawings.

C. Upon reaching 12 inches below the final fill elevation surrounding the gas vent, install the Gas Vent Geotextile in accordance with Section XI Supplementary Specifications: Section 31 05 19 – Geotextiles in the location of the trench leaving sufficient material exposed to fold over the top of the gravel once installation is complete.

D. Install the piping and fittings with the pitch indicated in the Contract Drawings. Follow all manufacturer instructions for pipe installation and joints. Ensure pipe lays on good, firm material.

E. Install #1 Crushed Stone or Gravel to cover the horizontal pipe and wrap the geotextile over the top.

F. Once all fill has been placed, compacted, and approved by the ENGINEER, complete installation of the Geocomposite in accordance with Section XI Supplementary Specifications: Section 31 05 22 – Geocomposites.

G. Install pipe penetrations through the Geocomposite gas venting layer, Geosynthetic Clay Liner, Geomembrane, and Geocomposite drainage layer in accordance with Section XI Supplementary Specifications: Sections 31 05 20 – Geosynthetic Clay Liner, 31 05 21 – Geomembrane Barrier, and 31 05 22 – Geocomposites.

H. Ensure pipe extends a minimum of 4 feet above final grade and install 180 degree elbow with bird and insect screen.
3.3 PROTECTION OF INSTALLED WORK

A. CONTRACTOR shall be responsible for maintaining installed materials and preventing their damage.

B. In the event of damage to prior work, CONTRACTOR shall immediately make repairs and replacements necessary to the satisfaction of the DEPARTMENT, at no additional cost to the DEPARTMENT.

END OF SECTION 33 05 32
SECTION 33 42 01
CAP APPURTENANCES

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes Work required to install the following items:
1. Perimeter Stormwater Channels (associated with Containment Cell cap anchor trenches)
2. Stormwater Benches (on Containment Cell and Lockport City Landfill Sediment Cell [LCLSC] caps)
3. Let-Down Channels (on Containment Cell cap)
4. Perimeter Let-Down Channel (around and adjacent to the LCLSC)
5. Catch Basin
6. Storm Drain Piping
7. Perimeter Access Road (on Containment Cell cap)
8. Landfill Access Road (on Lockport City Landfill [LCL])

B. Related Requirements:
   1. Section XI Supplementary Specifications:
      a. Section 31 05 19 – Geotextiles
      b. Section 31 23 16 – Excavation
      c. Section 31 23 26 – Barrier Protection Layer
      d. Section 31 23 23 – Fill for Restoration
      e. Section 31 37 16 – Buttress
      f. Section 32 92 19 – Seeding

1.2 REFERENCE STANDARDS

A. ASTM International:
   1. ASTM D2487 – Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System)
   2. ASTM D4972 – Standard Test Method for pH of Soils

B. New York State Department of Transportation
   1. NYSDOT Standard Specifications

C. Natural Resources Conservation Service

1.3 COORDINATION

A. Coordinate Work of this Section with installation of Containment Cell cap and LCLSC.
1.4 SUBMITTALS

A. Action Submittals. Submit at least 20 days prior to product delivery to site and any Work associated with products.
   1. Product Data

B. Informational Submittals. Submit at least 20 days prior to product delivery to site and any Work associated with products.
   1. Material Source: Submit name of commercial material suppliers.
   2. Manufacturer’s Certificate: Certify that products meet or exceed specified requirements.

C. Action Submittals. Submit at least 5 days prior to product delivery to Site.
   1. Preconstruction Testing Results documenting compliance with Part 1.5 and Part 2 requirements of this Section and NYSDEC DER-10/6 NYCRR Part 375 requirements.

D. Action Submittals. Submit within 12 hours of test completion.
   1. Construction Testing Results documenting compliance with compaction requirements.

1.5 PRECONSTRUCTION TESTING

A. CONTRACTOR shall retain the services of a qualified geotechnical laboratory to conduct pre-construction tests on samples of each fill material.

B. Complete the following preconstruction testing for each source of the following materials.
   1. Bedding Material
      a. One Classification of Soils for Engineering Purposes ASTM D2487
      b. One Standard Proctor ASTM D698
   2. Common Fill
      a. One Classification of Soils for Engineering Purposes ASTM D2487
      b. One Standard Proctor ASTM D698
   3. Surface Aggregate
      a. One Classification of Soils for Engineering Purposes ASTM D2487
      b. One Standard Proctor ASTM D698
   4. Type 3 Subbase
      a. One Classification of Soils for Engineering Purposes ASTM D2487
      b. One Standard Proctor ASTM D698

C. Imported materials must be sampled and tested in accordance with the requirements and frequencies required by NYSDEC DER-10 and 6 NYCRR Part 375. Levels of contamination must not exceed the lower of the groundwater and residential use levels as shown in Appendix 5 of DER-10.

1.6 ENVIRONMENTAL REQUIREMENTS

A. Do not install fill materials in wind in excess of 10 mph or during inclement weather including rain and snow. Do not install fill materials when frozen. Do not install fill materials over subgrade that is muddy, frozen, or contains frost.
B. Earthwork activities shall be suspended when satisfactory results cannot be obtained because of rain, freezing temperatures, moisture content, or other unsatisfactory conditions in the field.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Common Fill
   1. See Section XI Supplementary Specifications: Section 31 23 23 – Fill for Restoration.

B. Bedding Material:
   2. Material shall be locally derived from sources within NYSDOT Regions 4 or 5.

C. Catch Basin
   1. The Catch Basin shall meet the requirements of NYSDOT Standard Specifications 706-04 Precast Concrete Drainage Units. Manufacturer and product shall appear on the NYSDOT Materials Approved List for 706-03 Precast Concrete Group 2 and listed as routine (in good standing).
   2. Frames and grates shall meet the requirements of NYSDOT Standard Specifications 706-04. Frames and grates shall be NEENAH R-2556 Inlet Frame & Grate or equal.

D. Fine Stone Fill:
   2. Fine Stone Fill shall be stone with naturally appearing coloration.
   3. White stone will not be accepted.
   4. Material shall be locally derived from sources within NYSDOT Regions 4 or 5.

E. Grout:
   1. Grout shall meet the specifications of NYSDOT Standard Specifications Table 733-22B Grouted Riprap Grout Requirements.

F. Light Stone Fill:
   2. Material shall be locally derived from sources within NYSDOT Regions 4 or 5.
   3. Light Stone Fill shall be stone with naturally appearing coloration.
   4. White stone will not be accepted.

G. Medium Stone Fill:
   2. Material shall be locally derived from sources within NYSDOT Regions 4 or 5.
   3. Medium Stone Fill shall be stone with naturally appearing coloration.
   4. White stone will not be accepted.
H. Perforated Pipe:

I. Stabilization Geotextile:
   1. See Section XI Supplementary Specifications: Section 31 05 19 – Geotextiles.

J. Storm Drain Pipe:

K. Surface Aggregate
   1. Surface Aggregate shall meet the following gradation requirements (ASTM D2487):

<table>
<thead>
<tr>
<th>Sieve Size</th>
<th>Percent Passing</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5 inch</td>
<td>100</td>
</tr>
<tr>
<td>0.75 inch</td>
<td>65 - 97</td>
</tr>
<tr>
<td>#4</td>
<td>30 - 65</td>
</tr>
<tr>
<td>#16</td>
<td>15 - 30</td>
</tr>
<tr>
<td>#200</td>
<td>10 - 15</td>
</tr>
</tbody>
</table>

   If the plasticity index for the material is 2 or below, the #200 sieve is permitted to be 10-17% passing.
   2. Aggregate shall be in the range of pH 6 to 12.45 (ASTM D4972)
   3. Material shall be locally derived from sources within NYSDOT Regions 4 or 5.
   4. All aggregate materials shall be derived from natural rock formations.

L. Topsoil
   1. See Section XI Supplementary Specifications: Section 31 23 23 – Fill for Restoration.

M. Type 3 Subbase Course
   1. Type 3 Subbase Course shall meet the specifications of NYSDOT Standard Specifications 733-0403 – Subbase Course, Type 3.
   2. Material shall be locally derived from sources within NYSDOT Regions 4 or 5.

PART 3 - EXECUTION

3.1 STORMWATER CONVEYANCE

A. Catch Basin and Storm Drain
   1. Excavate for the Catch Basin and Storm Drain installation in accordance with Section XI Supplementary Specifications: Section 31 23 16 – Excavation. Trench widths shall provide a minimum of 1 foot clearance on either side of the pipe or catch basin. Take care during excavation near existing stormwater infrastructure.
2. Soil materials shall be disposed of in the Containment Cell. Ensure Work sequence is set such that excavation of this material occurs prior to completion of the Containment Cell Cap.
3. If Unsatisfactory Soils are present and upon approval, remove and replace in accordance the paragraph titled “Specific Procedures for Excavation of Unsatisfactory Soils Beyond Other Excavation Limits” in Section XI Supplementary Specifications: Section 31 23 16 – Excavation.
4. Subgrade surfaces shall be approved by ENGINEER prior to subsequent filling activities.
5. Install a 6 inch layer of Bedding Material.
6. Compact to a minimum of 95% Standard Proctor Maximum Density. Confirm compaction at a frequency of one test every 100 feet of trench, see Construction Testing Paragraph of this Section.
7. Install Storm Drain pipe on top of compacted Bedding Material. Minimum pipe slope shall be 2%.
8. Install Catch Basin at proper grade and alignment on compacted Bedding Material. 
   a. Only lift at lifting points designated by manufacturer.
   b. When lowering Catch Basin and joining pipe to unit, take precautions to ensure that interior of pipe remains clean.
   c. Remove knockouts or cut structure to receive piping without creating openings larger than required. Fill annular space with mortar.
   d. Cut pipe flush with interior of structure.
9. Cut SD-105 at property elevation to allow for pipe connection.
   a. Cut structure to receive piping without creating openings larger than required. Fill annular space with mortar.
   b. Cut pipe flush with interior of structure.
10. Backfill and compact Bedding Material in 6-inch lifts around and above the Catch Basin and Storm Drain. Confirm compaction at a frequency of one test every 100 feet of trench, see Construction Testing Paragraph of this Section.
11. When backfill reaches a minimum of 6 inches over the Storm Drain, backfill with Common Fill and compact in accordance with Section XI Supplementary Specifications: Section 31 23 23 – Fill for Restoration. Confirm compaction at a frequency of one test every 100 feet of trench, see Construction Testing Paragraph of this Section.
12. Install 6 inches of Topsoil in accordance with Section XI Supplementary Specifications: Section 31 23 23 – Fill for Restoration to reach existing grades.
13. Seed disturbed areas with Upland Seed Mix in accordance with Section XI Supplementary Specifications: Section 32 92 19 – Seeding.
14. Restore Old Upper Mountain Road pavement in accordance with Section XI Supplementary Specifications: Section 32 12 16 – Asphalt Paving.

B. Perimeter Channels (Containment Cell)
1. Perimeter Channels are intended to route surface water along the perimeter of the cap and to prevent erosive conditions.
2. Coordinate work with installation of the Barrier Protection Layer and Topsoil (Section XI Supplementary Specifications: Sections 31 23 26 – Barrier Protection Layer and 31 23 23 – Fill for Restoration).
3. Install Stabilization Geotextile in accordance with Section XI Supplementary Specifications: Section 31 05 19 – Geotextiles. Ensure geotextile is installed beyond the edge of stone fill and keyed into adjacent materials.
4. Install Fine Stone Fill in a 6 inch layer to the lines, grade, and dimensions as indicated in the Contract Drawings.
a. Place stone carefully in a manner to prevent damage to underlying geotextiles and materials.

b. Place stone in a manner that will produce a reasonable well-graded mass of stone with smaller stone fragments filling the space between larger ones, so as to result in the minimum practicable percentage of voids.

c. Distribute stone so that there will be no pockets of uniform size materials.

d. Placement not deemed acceptable by ENGINEER must be removed and replaced.

C. Perimeter Let-Down Channel (LCLSC)
1. The Perimeter Let-Down Channel is intended to route surface water along the perimeter of the LCLSC cap and down the LCL to the stream/wetland.

2. Coordinate work with installation of the Barrier Protection Layer and Topsoil (Section XI Supplementary Specifications: Sections 31 23 26 – Barrier Protection Layer and 31 23 23 – Fill for Restoration).

3. Excavate LCL cap materials as necessary for installation of the Perimeter Let-Down Channel in accordance with Section XI Supplementary Specifications: Section 31 23 16 – Excavation. Do not excavate the low permeability layer.

   a. Cut out soft areas and replace with Barrier Protection Layer material, in accordance with Section XI Supplementary Specifications: Section 31 23 26 – Barrier Protection Layer.

5. Install Stabilization Geotextile in accordance with Section XI Supplementary Specifications: Section 31 05 19 – Geotextiles. Ensure geotextile is installed beyond the edge of stone fill and keyed into adjacent materials.

6. Install Fine or Light Stone Fill in a 6 inch layer to the lines, grade, and dimensions as indicated in the Contract Drawings. Fine Stone Fill is to be installed for portions of the Perimeter Let-Down Channel immediately adjacent to the LCLSC. Light Stone Fill is to be installed for portions of the Perimeter Let-Down Channel down the LCL cap slope.
   a. Place stone carefully in a manner to prevent damage to underlying geotextiles and materials.

   b. Place stone in a manner that will produce a reasonable well-graded mass of stone with smaller stone fragments filling the space between larger ones, so as to result in the minimum practicable percentage of voids.

   c. Distribute stone so that there will be no pockets of uniform size materials.

   d. Placement not deemed acceptable by ENGINEER must be removed and replaced.

D. Stormwater Benches (Containment Cell and LCLSC)
1. In coordination with installation of the Barrier Protection Layer (Section XI Supplementary Specifications: Section 31 23 26 – Barrier Protection Layer), grade stormwater benches into side slopes with a 2H:1V slope, as depicted in the Contract Drawings to create a 1 foot deep “v” shaped channel.

2. Install Stabilization Geotextile in accordance with Section XI Supplementary Specifications: Section 31 05 19 – Geotextiles. Ensure geotextile is installed beyond the edge of Fine Stone Fill and keyed into adjacent materials.

3. Install Stone Fill in a 6 inch layer to the lines, grade, and dimensions as indicated in the Contract Drawings. Use Light Stone Fill for any sections of the benches which have a slope exceeding 20% or as indicated in the Contract Drawings.
   a. Place stone carefully in a manner to prevent damage to underlying geotextiles and materials.
b. Place stone in a manner that will produce a reasonable well-graded mass of stone with smaller stone fragments filling the space between larger ones, to result in the minimum practicable percentage of voids.

c. Distribute stone so that there will be no pockets of uniform size materials.

d. Placement not deemed acceptable by ENGINEER must be removed and replaced.

4. Grade Stormwater Benches gently into Let-Down Channels.

E. Let-Down Channels (Containment Cell)

1. In coordination with installation of the Barrier Protection Layer (Section XI Supplementary Specifications: Section 31 23 26 – Barrier Protection Layer), grade the Let-Down Channels to the lines, grades, and elevations depicted in the Contract Drawings.

2. Install Stabilization Geotextile in accordance with Section XI Supplementary Specifications: Section 31 05 19 – Geotextiles. Ensure geotextile is installed beyond the edge of Light Stone Fill or Medium Stone Fill and keyed into adjacent materials.

3. Install Light Stone Fill in a 1 ft layer in the 2% sloped channel and Medium Stone Fill in a 1.5 ft layer in the 20% sloped channel to the lines, grade, and dimensions as indicated in the Contract Drawings.

a. Place stone carefully in a manner to prevent damage to underlying geotextiles and materials.

b. Place stone in a manner that will produce a reasonable well-graded mass of stone with smaller stone fragments filling the space between larger ones, so as to result in the minimum practicable percentage of voids.

c. Distribute stone so that there will be no pockets of uniform size materials.

d. Placement not deemed acceptable by ENGINEER must be removed and replaced.

4. For the portion of the Let-Down Channel at a 20% sloped channel, grout the Medium Stone Fill layer to prevent displacement of stones from water flow.


b. Install Grouted Riprap over top of Medium Stone Fill and extending to the toe of previously installed materials to the lines, grades, and dimensions as depicted in the Contract Drawings.

1) Fill spaces between stones with Grout. Ensure the spaces between stones are completely filled with Grout, allowing for some protrusion of rock edges for energy dissipation.

a) The rock riprap shall be flushed with water before placing the grout to remove the fines from the rock surfaces. The rock shall be kept moist before the grouting and without placing in standing or flowing water. The grout mix shall be delivered to the site and placed within 1.5 hours after the introduction of the cement to the aggregates. In hot weather or under conditions contributing to accelerated stiffening of the concrete, the time between the introduction of the cement to the aggregates and complete discharge of the grout batch shall be a maximum of 45 minutes. The ENGINEER may allow a longer time provided the setting time of the grout is increased a corresponding amount by the addition of an approved set-retarding admixture. In any case concrete shall be conveyed from the mixer to the final placement as rapidly as practicable by methods that prevent segregation of the aggregates, loss of mortar, displacement of the rock riprap, or a combination of these.
The grout shall be placed in two nearly equal applications consisting of successive lateral strips starting at the toe of the slope and progressing upward. The grout shall be delivered to the place of final deposit by approved methods and discharged directly on the surface of the rock. Prevent displacement of the rock directly under the grout discharge. The flow of grout shall be directed as needed to prevent grout from flowing excessively along the same path and to assure that all intermittent spaces are filled.

c) Sufficient barring shall be conducted to loosen tight pockets of rock and otherwise aid in the penetration of grout to ensure the grout fully penetrates the total thickness of the rock blanket.

2) Do not place Grout when temperature is, or is expected to be, below 40 degrees Fahrenheit.

3) The surface finish, following the completion of grout installation, shall consist of one third of the rock extended above the level of grout. The exposed rock will not have a plastered appearance.

4) Clean surface of stones to remove accumulated Grout.

5) Keep surface of Grouted Riprap moist for 7 days after grouting. A suitable curing compound may be employed if approved by ENGINEER.

3.2 PERIMETER ACCESS ROAD

A. Coordinate with installation of the Barrier Protection Layer (Section XI Supplementary Specifications: Section 31 23 26).

B. Prepare subgrade for installation of the Type 3 Subbase. Ensure subgrade is smooth, firm, stable, and compacted.

1. Cut out soft areas and replace with Barrier Protection Layer material, in accordance with Section XI Supplementary Specifications: Section 31 23 26 – Barrier Protection Layer.

C. Install Type 3 Subbase to the lines and grade depicted in the Contract Drawings with a minimum thickness of 1 foot.

D. Place Type 3 Subbase in two uniform horizontal layers and compact as work progresses.

E. Place Surface Aggregate in two uniform horizontal layers and compact as Work progresses. Surface Aggregate shall extend above final topsoil grades of the Containment Cell Cap by a minimum of 3 inches.

F. Compaction of Type 3 Subbase and Surface Aggregate shall be completed with a smooth drum, vibratory roller, having a static weight of 10 tons or greater, or other suitable types of compact equipment if approved.

1. Compact to a minimum 95% of the maximum dry density with a moisture content that is within 2 percent above or below the optimum moisture content value.

2. At minimum, one compaction test shall be performed per lift for each 100 linear feet of road.

3. Material that fails to achieve the compaction requirement shall be reworked by the CONTRACTOR and retested until it passes at no additional cost to the DEPARTMENT.
3.3 LANDFILL ACCESS ROAD

A. Coordinate with preparation work associated with Area 2 and Gulf Creek Seep Area Work.

B. Improve the existing Landfill Access Road across the LCL as necessary to support construction traffic in accordance with Section X Standard Specifications: Section 01 55 13 – Access Roads and Parking Areas. Remove portions of the existing Landfill Access Road as depicted in Contract Drawings to prepare subgrade for the LCLSC.

C. Install the proposed Landfill Access Road in the locations depicted in the Contract Drawings (to provide access around the LCLSC and down the LCL slope to OU-2.
   1. Excavate LCL cap materials as necessary for installation of the Landfill Access Road in accordance with Section XI Supplementary Specifications: Section 31 23 16 – Excavation. Do not excavate the low permeability layer.
   2. Prepare subgrade for installation of the Type 3 Subbase. Ensure subgrade is smooth, firm, stable, and compacted.
      a. Cut out soft areas and replace with Barrier Protection Layer material, in accordance with Section XI Supplementary Specifications: Section 31 23 26 – Barrier Protection Layer.
   3. Install Type 3 Subbase to the lines and grade depicted in the Contract Drawings with a minimum thickness of 1 foot.
   4. Place Type 3 Subbase in two uniform horizontal layers and compact as work progresses.
   5. Place Surface Aggregate in two uniform horizontal layers and compact as Work progresses. Surface Aggregate shall extend above final topsoil grades of the LCL Cap by a minimum of 3 inches.
   6. Compaction of Type 3 Subbase and Surface Aggregate shall be completed with a smooth drum, vibratory roller, having a static weight of 10 tons or greater, or other suitable types of compact equipment if approved.
      a. Compact to a minimum 95% of the maximum dry density with a moisture content that is within 2 percent above or below the optimum moisture content value.
      b. At minimum, one compaction test shall be performed per lift for each 100 linear feet of road.
      c. Material that fails to achieve the compaction requirement shall be reworked by the CONTRACTOR and retested until it passes at no additional cost to the DEPARTMENT.

3.4 CONSTRUCTION TESTING

A. Field density measurements shall be performed by an independent testing laboratory hired by CONTRACTOR by Nuclear Methods (ASTM D6938). Field density tests shall be completed at the frequencies specified in this Section.

B. Notify ENGINEER at least 24 hours prior to performing compacting testing.

3.5 EXCESS MATERIAL DISPOAL

A. CONTRACTOR shall dispose of excess material and material not suitable for use onsite at an appropriate offsite disposal facility at no additional cost to the DEPARTMENT.
3.6 PROTECTION OF INSTALLED WORK

A. CONTRACTOR shall be responsible for maintaining installed materials and preventing their damage.

B. In the event of damage to prior work, CONTRACTOR shall immediately make repairs and replacements necessary to the satisfaction of the DEPARTMENT, at no additional cost to the DEPARTMENT.

END OF SECTION 33 42 01
SECTION 35 60 00
TEMPORARY WATER DIVERSION AND FLOOD CONTINGENCY PLANNING

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes temporary facilities to manage surface water including creek bypass flow, minimizing the quantity of surface water entering the Work area, preventing impairment of Gulf Creek, planning for flood events, and recovery after flood events.

B. Related Sections:
   1. Section XI Supplementary Specifications
      a. Section 02 72 00 – Water Treatment
      b. Section 01 33 00 - Submittal Procedures

1.2 REFERENCES

A. New York State Department of Environmental Conservation
   1. State Pollutant Discharge Elimination System (SPDES) Equivalency Permit

1.3 PERFORMANCE REQUIREMENTS

A. Surface Water Diversion
   1. The CONTRACTOR shall reduce the quantity of water to be managed within active work areas and increase the productivity of Work by installing surface water diversions around active work areas. These diversion structures shall be installed to form the Active OU-2 Work Areas which are segregated from the surrounding environment for sediment disturbance activities while bypassing normal flows around the active work areas.
   2. Area 1 OU-2 Requirements
      a. CONTRACTOR is required to install surface water diversion structures, turbidity controls, and erosion/sedimentation controls to prevent either of the following conditions for up to a 2-inch 24-hour rainfall event or a Gulf Creek flow of 26 cubic feet per second as measured at the downstream end of Area 1
         1) Surface water flow directly impacting active work areas or disturbing previously completed work. This includes causing excessive erosion of subgrade or placed fill materials.
         2) Release of sediment/soil from Active OU-2 Work Areas to inactive areas or downstream such that turbidity in these areas is visually impaired.
   3. Area 2 OU-2 Requirements
      a. CONTRACTOR is required to install surface water diversion structures, turbidity controls, and erosion/sedimentation controls to prevent either of the following conditions for up to a 2-inch 24-hour rainfall event or a Gulf Creek flow of 167 cubic feet per second as measured at Niagara Street culvert.
1) Surface water flow directly impacting active work areas or disturbing previously completed work. This includes causing excessive erosion of subgrade or placed fill materials.

2) Release of sediment/soil from Active OU-2 Work Areas to inactive areas or downstream such that turbidity in these areas is visually impaired.

4. Other Areas (including Area 1 OU-1, Area 3, and other areas outside of OU-2 where work is necessary).
   a. CONTRACTOR is required to install surface water diversion structures and erosion/sedimentation controls to **prevent** either of the following conditions for up to a 2-inch 24-hour rainfall event.
      1) Surface water flow directly impacting active work areas or disturbing previously completed work. This includes causing excessive erosion of subgrade or placed fill materials.
      2) Release of sediment/soil to Gulf Creek such that turbidity in these areas is visually impaired.

5. The Contract Drawings depict preliminary surface water diversions in certain areas. The CONTRACTOR is entirely responsible for the surface water diversion systems employed within each area, including design, fabrication, installation, maintenance, and removal. The surface water diversions shall facilitate construction activities and may require pumping, turbidity monitoring, and suspension of work under certain conditions.

6. At a minimum, the following surface water diversions are necessary
   a. Blocking and re-routing stormwater flow from the storm drain system near Old Upper Mountain Road around active containment cell work and active excavation work within OU-2.
   b. Diverting overland stormwater flow from upgradient off-site areas before entering the OU-1 area which includes the containment cell subgrade, staging and stockpile areas, amended sediment placement, and eventually the containment cell cap.
   c. Diverting surface water and groundwater around active excavation, access, sediment processing, and restoration areas within Area 1 (upstream portion of OU-2) commencing with initial Work activities and remaining intact until stabilization of the restored grades.
   d. Diverting surface water and groundwater around active excavation, access, sediment processing, and restoration areas within Area 2 (downstream portion of OU-2) commencing with initial Work activities and remaining intact until stabilization of the restored grades.

7. CONTRACTOR is required to treat and discharge collected or pumped water which has been exposed to active excavation areas, destabilized sediment and fill surfaces, and sediment and fill stockpiles. These liquids shall be treated and discharged in accordance with Section XI Supplementary Specifications: Section 02 72 00 – Water Treatment and the SPDES Equivalency Permit.

8. Diverted creek flow does not require treatment. The Contractor shall employ turbidity controls downstream from active work areas to prevent violation of surface water standards. Any water which requires removal from the Active Work Areas will require treatment and discharge under the SPDES Equivalency Permit in accordance with Section 02 72 00 – Water Treatment. Discrete work areas (Active OU-2 Work Areas) shall be isolated from surrounding surface water, and to the extent possible, groundwater, while sediment is excavated from these areas. Isolation is to be accomplished with the use of temporary cofferdams, portadams, or other means determined by the Contractor. Water outside of the Active OU-2 Work Areas should remain unimpacted and free to flow downstream. Water within the Work Areas shall be isolated until solids are allowed to settle to a point at which the isolated water will no longer cause exceedances of the
water quality standards in Gulf Creek. Any water which requires removal from the Active OU-2 Work Areas will require treatment and discharge under the SDPES Equivalency Permit.

B. Flood Contingency Planning
1. Rainfall and/or rapid snow melt will cause the water level in the creek to rise. Consequences of elevated creek water level potentially affecting remedial construction activities range from additional groundwater seepage into open excavations to completely flooding the majority of the low-lying site and temporary work stoppage. The CONTRACTOR shall prepare a Flood Contingency Plan (FCP) for use in planning for and responding to potential flood situations to maintain site and project personnel safety, to prevent flood-related loss of equipment and materials, and to mitigate the potential for release of contamination from exposed impacted soils during remedial construction.
2. The Flood Contingency Plan shall be executed whenever a forecasted storm event is anticipated to exceed 2 inches of rainfall within a 24-hour period, or when an active rainfall event has exceeded 1.5 inch within the previous 24-hours and rain is continuing or is forecasted to continue.
3. The CONTRACTOR shall monitor weather forecasts and inform the ENGINEER of forecasted precipitation events and the anticipated precipitation.
4. The goals of the Flood Contingency Plan are to reduce storm damage to the site, installed Work, unstabilized areas, and CONTRACTOR equipment.

1.4 SUBMITTALS
A. Surface Water and Turbidity Control Plan (as an appendix of the Work Plan)
1. As required by Section X Standard Specifications: Section 01 33 00 - Submittal Procedures.
2. Prepare a Surface Water and Turbidity Control Plan to include as a standalone appendix of the Work Plan. The Surface Water and Turbidity Control Plan shall include, at a minimum, the following items:
   a. Drawings and details describing each surface water diversion system required to complete the work, including those identified in Paragraph 1.3 of this Section.
   b. Drawings showing diversion structures forming the Active OU-2 Work Areas required to complete the Contractor’s proposed construction sequence.
   c. Methods of surface water management, including waters within the creek and waters entering the creek.
   d. Products to be used in performance of this work.
   e. Methods and equipment used to monitor Gulf Creek flowrate at the downstream end of Area 1 and Area 2.
3. This Plan shall be prepared and certified by a New York Licensed Professional Engineer hired by the CONTRACTOR.

B. Flood Contingency Plan (as an appendix of the Work Plan)
1. As required by Section X Standard Specifications: Section 01 33 00 - Submittal Procedures.
2. Prepare a Flood Contingency Plan (FCP) to include as a standalone appendix of the Work Plan. The Flood Contingency Plan shall include, at a minimum, the following items:
a. Creek stage monitoring: The FCP shall include detail related to the CONTRACTOR’s plan for creek stage monitoring including the monitoring of weather forecasts and data sources/monitoring frequency during dry and wet conditions.

b. Creek stage action levels: As part of the FCP, the Contractor shall evaluate changes in creek stages caused by precipitation events and evaluate potential construction impacts. A range of site activity action levels shall be identified in the FCP to mitigate the potential for environmental releases and minimize the potential for construction losses, rework, and project delays. Site activity action levels such as normal, flood watch, flood warning or Action Level 1, Action Level 2, and Action Level 3 may be considered.

c. Methods for management of water following inundation of the work area by a flood.

d. Describe actions to take in the 24-hour period prior to a forecasted storm event which is expected to exceed 2 inches or which flooding of the low-lying areas within Area 1 and Area 2 are likely.

e. Describe immediate emergency actions to be implemented in the event of a storm event which has not been planned for that begins to flood the low-lying areas.

f. Plan documentation: Contractor Daily Field Reports shall include all creek stage and weather monitoring data as well as Contractor actions taken to address potential flooding conditions.

g. Flood warning sources: Official flood warnings are issued by the NOAA National Weather Service (NWS). The FCP shall include contact information related to the NWS Forecast Office that serves the project area.

h. Local flood agencies: The FCP shall include contact information for the local emergency management agencies such as Niagara County Emergency Services and the Lockport Fire Department.

i. Asset location: The FCP shall include consideration of project temporary facilities such as office trailers, sediment and cap material staging areas, equipment, etc. as it pertains to creek stage rise during flood events.

j. Flood insurance: The Contractor may wish to evaluate the need for flood insurance as a construction risk management tool.

k. Cleanup/spill equipment: The FCP shall include detail related to Contractor’s onsite hazardous material spill response equipment such as oil absorbent booms.

l. Describe training procedures and programs for employees and subcontractors.

m. Describe protection of temporary utilities.

C. Action Submittals. Submit at least 20 days prior to product delivery to site and any Work associated with products.

1. Product Data for any Surface Water Diversion Products or Structures.


3. Design Data for the creek monitoring stations

1.5 GULF CREEK MONITORING

A. The CONTRACTOR shall install a continuous monitoring system at the downstream end of Area 1 and Area 2 (within the Niagara Street Culvert) which accurately measures flow within Gulf Creek. The system shall be designed and operated to the satisfaction of the ENGINEER. The system shall record flow rate on 5-minute increments or shorter.
B. Allow the ENGINEER direct access to the monitoring equipment such that the creek flowrate can be visually observed and recorded at any time.

1.6 TEMPORARY WATER DIVERSION REQUIREMENTS

A. Surface water controls shall be installed, at a minimum, to control surface water during construction and to allow for an efficient production rate. Provide ditches, berms, temporary cofferdams, turbidity curtains, and/or other devices to divert surface water and groundwater around active work areas.

B. Install measures to ensure that the downstream end of any temporary water diversion structure(s) does not cause erosion or excess turbidity.

1.7 FLOOD CONTINGENCY REQUIREMENTS

A. Adhere to the approved FCP during every stage of the Work. Reduce the amount of equipment and supplies within the low-lying areas of Area 1 and Area 2 at all times. Park inactive equipment and store materials above the 100-year floodplain elevation.

B. Forecasted Storm Events: Cease soil disturbance and other activities within the low-lying areas of Area 1 and Area 2 at least 24-hours prior to a forecasted rainfall storm event greater than 2 inches or when a storm has greater than a 50% chance of rainfall for more than 8 consecutive hours.
   1. Upon determination that smaller or greater magnitude storm events result in flooding of the low-lying areas, the action levels listed above may be adjusted with approval of the ENGINEER.
   2. CONTRACTOR shall complete the following actions prior to the storm event, at a minimum:
      a. To the extent possible, stabilize active excavation or fill areas and sediment stockpiles.
      b. Set diversion structures to provide a path of low resistance downstream while attempting to divert the strongest flows away from areas that are not stabilized or have a high likelihood of experiencing erosion.
      c. Deenergize and protect temporary utilities that may be impacted by flood events.
      d. Move equipment, tools, supplies, and any movable items out of the low-lying areas to above the 100-year floodplain elevation.
      e. Control flow around the site.

C. Unplanned Storm Events: In the event a storm event occurs which produces unexpected flows through the low-lying areas (such as storms that have higher precipitation amounts or short rainfall durations than anticipated), immediately move personnel and equipment out of these areas and above the 100-year floodplain elevation. As time allows, set diversion structures to divert flow around active work areas.

D. Training: The CONTRACTOR shall train staff including subcontractors on the procedures and action contained in the approved FCP. Creek stage data and contingency planning shall be discussed at Daily Safety Meetings to inform all onsite staff of roles and responsibilities.
E. Daily Meetings: Creek stage data, forecasted storm events, and contingency planning shall be discussed at Daily Safety Meetings to inform all onsite staff of roles and responsibilities.

F. Daily Field Reports: Document daily creek stage, weather monitoring data, and actions taken to address potential flooding condition to the CONTRACTOR Daily Field Reports.

G. Modification of FCP: In the event of a flood event which demonstrates that FCP procedures are inadequate, the FCP shall be revised and resubmitted to the DEPARTMENT for reapproval prior to continued work.

PART 2 - PRODUCTS

2.1 SURFACE WATER DIVERSION PRODUCTS

A. Provide products that will meet the requirements of this Section and in accordance with the CONTRACTOR’s approved Surface Water and Groundwater Diversion Plan and approved Flood Contingency Plan.

PART 3 - EXECUTION

NOT USED.

END OF SECTION 35 60 00
SECTION XII
MEASUREMENT FOR PAYMENT

PART 1 GENERAL

1.1 DESCRIPTION

A. This section covers the methods and procedures that the New York State Department of Environmental Conservation (NYSDEC) will use to measure the CONTRACTOR's work and to provide payment. This general outline of the measurement and payment features will not in any way limit the responsibility of the CONTRACTOR for making a thorough investigation of the Contract Documents to determine the scope of the work included in each bid task.

B. Items listed starting in Part 3 of this Section refer to and are the same pay items listed in the Bid Form and constitute all pay items for completing the Work. No direct or separate payment will be made for providing miscellaneous temporary or accessory works, plant services, CONTRACTOR’s or ENGINEER’s field offices, layout surveys, Project signs, product handling and delivery, sanitary requirements, testing, safety provisions and safety devices, submittals and record drawings, water supplies, power and fuel, traffic maintenance, removal of waste, security, coordination with OWNER’s operations, information technology (including hardware, software, and services) required during construction, bonds, insurance, or other requirements of the General Conditions, Supplementary Conditions, General Requirements, and other requirements of the Contract Documents. Payment will constitute complete compensation for all Work required by the Contract Documents, including all costs of accepting the general risks, liabilities, and obligations, expressed or implied. Compensation for providing, as required, all supervision, labor, equipment, overhead, profit, material, tests, required services, applicable taxes, and for performing all other related Work items, shall be included in prices stipulated for lump sum and unit price pay items listed in this Section and included in the Contract.

C. Payment will be made to the CONTRACTOR in accordance with the specified methods of measurement and the unit or lump sum prices stipulated in the accepted bid. Payment will constitute complete compensation for all work required by the Contract Documents including all costs of accepting the general risks, liabilities, and obligations, expressed or implied. Payment under all tasks will include, but not necessarily be limited to, compensation for furnishing all supervision, labor, equipment, overhead, profit, material, services, applicable taxes, and for performing all other related work required. No other payment will be made.

D. No payment shall be made for work performed by the CONTRACTOR to replace defective work, work which is not required by the Contract Documents, work outside the limits of the Contract and additional work necessary due to actions of the CONTRACTOR, unless ordered by the ENGINEER in writing.

E. For unit price items, the CONTRACTOR shall be paid for the actual amount of work accepted and for the actual amount of materials in place during the period of construction. After the work is completed and before final payment is made, the ENGINEER or CONTRACTOR as specified in the pay items will make final measurements to determine the quantities of the various items of work accepted as the basis for final payment. The CONTRACTOR shall accept compensation as herein provided, in full payment for furnishing all materials, labor,
tools, equipment, and incidentals necessary to the completed work and for performing all work contemplated and embraced by the Contract.

F. For lump sum items, the CONTRACTOR will be paid on the basis of actual work accepted until the work is completed. Upon completion of the item, 100 percent of the lump sum price may be paid, subject to the terms of the Agreement. The pay items listed below describe the measurement of and payment for the Work to be done under respective items listed in the Bid as outlined in the approved schedule of values.

G. All units of measurement shall be standard United States convention, as applied to the specific items of work by tradition and as interpreted by the ENGINEER. Each unit or lump sum price stated in the Bid shall constitute full compensation, as herein specified, for each item of Work completed.

1.2 ENGINEER’S ESTIMATE OF QUANTITIES

A. The estimated quantities for unit price items, as listed in the Bid Schedule, are only approximate and are included solely for the purpose of comparing Bids. The ENGINEER does not expressly, or by implication, agree that the nature of the materials encountered or required shall correspond therewith and reserves the right to increase or decrease any such quantity or to eliminate any quantity as the ENGINEER may deem necessary.

1.3 INCIDENTAL ITEMS

A. Except for the items designated hereunder for measurement and payment, the costs of items necessary to complete the work as specified are considered incidental to the items specified for measurement and payment. The costs of incidental items shall be included in the prices of items specified for measurement and payment and itemized on the CONTRACTOR’s Bid Item Breakdown.

1.4 SUBMITTALS

A. Bid Breakdowns/Schedule of Values: Submit in accordance with Section III Bidding Information and Requirements Article 12; Section VIII General Conditions, Article 1.4, 1.6 and Article 13; and Section X Standard Specifications Section 01 29 73 – Bid Breakdown (Schedule of Values).

1.5 RELATED SPECIFICATIONS SPECIFIED ELSEWHERE

A. Payment to CONTRACTOR: Refer to General Conditions and Contract Agreement.

B. Changes in Contract Price: Refer to General Conditions and Contract Agreement.

PART 2 MEASUREMENT

2.1 GENERAL

A. Under this Contract, the CONTRACTOR shall provide all labor, equipment, and materials and shall complete all Work as shown and described in the Contract Documents and as directed by the ENGINEER, in accordance with the expressed intent of the Contract to secure a complete
construction of a functionally complete Project. The bid items described in this Section shall together include all work set forth in the Contract Documents or required to properly complete the Work. Any necessary Work that is not explicitly described shall be considered included in the item to which it properly belongs. Where used in the Contract Documents, the word “including” (“includes”, “include”) shall mean “including (includes, include) but not limited to”. Each item includes:

1. All tools, labor, material, equipment, plant services, bonds and insurance, tests, adjustments, warranties, overhead, supervision and other expenses required to perform the Work.

2. All accessories, manuals, and services pertinent to the proper installation of materials and equipment.

3. All accessories, manuals, and services pertinent to the proper start-up, operation, and maintenance of materials and equipment.

B. Lump Sum Items: Measurement of all Lump Sum Items will be on a total job basis.

1. The quantities of Work performed under lump sum items will not be measured except for the purpose of determining reasonable interim payments. Interim payments will be made in accordance with the estimated value of Work performed and found acceptable as determined by the ENGINEER, or as specified in this Section.

2. For each lump sum bid item, the CONTRACTOR shall provide a schedule of values per Part 1 Paragraph 1.4 and Part 3 of this Section. The schedule of values shall include a breakdown of major cost items included within the lump sum in sufficient detail to document the specific costs of all items included in the lump sum bid item. The schedule of values shall be provided prior to initiation of the Work.

3. Measurement for Progress Payments of all lump sum items will be on a percent complete basis as established in the Contract Documents.

C. Unit Price Items: For each unit price bid item, the CONTRACTOR shall provide a schedule of values per Part 1 Paragraph 1.4 and Part 3 of this Section. The schedule of values shall include a breakdown of major cost items included within the unit price in sufficient detail to document the specific costs of all items included in the unit price bid item. The schedule of values shall be provided prior to initiation of the Work. Where items are specified to be measured on a unit basis, measurement will be of each unit as specified.

1. Volumetric Basis - Where solid or semi-solid items (e.g. sludge and sediment) are specified to be measured on a volumetric basis, the volume will be determined on an in-place basis (prior to excavation for excavation, or after placement and compaction for imported fill) between the existing and final ground surfaces as measured by land surveys. If no tolerance is specified, the tolerance shall be interpreted to be 0.00 foot. Where liquid items are specified to be measured on a volumetric basis, the volume will be determined by direct readings obtained from a graduated container containing the liquid or from a calibrated meter designed to measure the quantity of liquid passing an established point or boundary (e.g. flow meter).
2. Area Basis - Where items are specified to be measured on an area basis, the area will be measured as the actual surface area within the specified limits. If a specified width of an item is indicated, the area will be determined by the actual length along the centerline multiplied by the specified width. No adjustments will be made for the overlap of materials.

3. Length Basis - Where items are specified to be measured on a length basis, the length will be measured as the actual length along the centerline within specified limits. No adjustments will be made for the overlap of materials.

4. Weight Basis - Where items are specified to be measured on a weight basis, the weight will be measured based on certified weigh scale tickets obtained from a weigh scale certified by the County Department of Weights and Measures and approved by the ENGINEER. The weights shall be taken in the presence of the ENGINEER or DEPARTMENT. When the weight is per ton, trucks shall be weighed prior to loading and after loading. The measured tonnage will be the difference between the prior- and post-loading measured truck weights.

D. Measurement and payment will be made only for Work that has been acceptably performed within the limits shown on the Contract Documents and in conformance with the Contract Documents, as specified or ordered by the ENGINEER.

PART 3 BID ITEMS

3.1 BID ITEM LS-1: MOBILIZATION AND DEMOBILIZATION (Limited to 15 percent of Total Bid Amount)

A. General

1. This item shall consist of all materials, labor, and equipment to complete the Work as described in the Contract Documents. The Work shall include, but not be limited to the following components: mobilization and demobilization; plan and execution of the project in accordance with DER-10 Section 1.14 “Sustainability and Green Remediation”; preparation and approval of project plans including Work Plan, Sampling Plan and Quality Control Protect Plan, Quality Assurance Project Plan, COVID-19 Management Plan, and other plans not included in other Bid items; preparation of and updates to the Bid Breakdowns, Progress Schedule, and Schedule of Submittals; preparation, tracking, and revisions to submittals; preparation and submittal of closeout documents and fulfilment of closeout requirements; rerouting or raising of overhead utility lines near OU-1 obtaining and compliance with all necessary work and environmental permits; cost of bonds and insurance; and other Work not specifically in other bid items including but not limited to: compliance with applicable regulatory requirements, preconstruction and construction planning, scheduling, submittals, reporting, administration and documentation, quality control, environmental protection, and spill control.

B. Measurement for Payment

1. The CONTRACTOR shall submit a bid breakdown (Section III Bidding Information and Requirements: Article 12) for this Bid Item that shows the individual cost of executing
and providing items in the scope of work for this Bid Item including but not limited to the following items:

a. Mobilization and demobilization

b. Plan and execution of the project in accordance with DER-10 Section 1.14 “Sustainability and Green Remediation”

c. Preparation of project plans including Work Plan, Sampling Plan and Quality Control Protect Plan, Quality Assurance Project Plan, COVID-19 Management Plan, and other plans not included in other Bid items

d. Preparation of and updates to the Bid Breakdown, Progress Schedule, and Schedule of Submittals

e. Preparation, tracking, and revisions to submittals

f. Rerouting or raising of overhead utility lines near OU-1

g. Preparation and submittal of closeout documents and fulfilment of closeout requirements

h. Obtaining and compliance with all necessary work and environmental permits

i. Cost of bonds and insurance

j. Installation of Temporary Construction Access Roads, Temporary Stabilized Construction Entrances, temporary staging/stockpile areas, not including temporary access roads within OU-2 used for OU-2 Sediment excavation included in UP-4 and UP-5, the Area 1 Site Access Road included in LS-2, or the Perimeter Access Road included in LS-7. This does not include periodic road maintenance necessary throughout the Contract which is included in UP-8: Site Services and UP-10: Winter Shutdown/Winterization of the Site.

k. Initial improvement of the existing Landfill Access Road to support construction upon mobilization and installation of the proposed Landfill Access Road as depicted in the Contract Drawings. This does not include periodic road maintenance necessary throughout the Contract which is included in UP-8: Site Services and UP-10: Winter Shutdown/Winterization of the Site.

l. Removal of the Temporary Construction Access Roads, Temporary Stabilized Construction Entrances, and temporary staging/stockpile areas, not including the access road installed within OU-2 used for OU-2 Sediment excavation included in UP-4 and UP-5, the Area 1 Site Access Road included in LS-2, or the Perimeter Access Road included in LS-7.

m. Other Work not specifically in other bid items including but not limited to: compliance with applicable regulatory requirements, preconstruction and construction planning, scheduling, submittals, reporting, administration and documentation, quality control, environmental protection, and spill control

2. Measurement for payment of this item shall be for items complete, installed, and properly functioning. The CONTRACTOR may invoice for up to 60 percent once the following conditions are met: mobilization of forces, satisfactory installation of included items based on an approved bid breakdown, and commencement of installation work associated with the Area 1 Site Access Road. The CONTRACTOR may invoice for up to 30 percent of this item upon substantial completion of the work and the remaining 10
percent at final completion. Payment shall be lump sum bid for each individual item described above, including mobilization, demobilization, and miscellaneous as submitted in the CONTRACTOR’s bid breakdown.

3.2 BID ITEM LS-2: AREA 1 SITE ACCESS ROAD

A. General

1. This item shall consist of all materials, labor, and equipment to complete the Work as described in the Contract Documents. The Work shall include installation of the Area 1 Site Access Road consisting of, but not limited to, the following components: installation of H-Piles and guide rail cables; excavation; rock removal; installation of geogrid, road aggregate, and ditch stone material; restoration of disturbed surfaces related to the access road installation; hiring of the independent testing laboratory, Inspecting Engineer, and vibration monitoring firm; and other items not specified elsewhere but necessary for completion of this Work.

B. Measurement for Payment

1. The CONTRACTOR shall submit a bid breakdown (Section III Bidding Information and Requirements: Article 12) for this Bid Item that shows the individual cost of executing and providing items in the scope of work for this Bid Item including but not limited to the following items:
   a. Procurement and installation of H-Piles
   b. Procurement and installation of guide rail cables, connections, and anchorages
   c. Excavation of slope
   d. Rock scaling
   e. Handling of excavated soils
   f. Handling of rock materials
   g. Independent testing laboratory and testing services
   h. Procurement and installation of Geogrid
   i. Procurement and installation of Modified subbase, type 3
   j. Procurement and installation of Fine Stone Fill for drainage ditch
   k. Permanent restoration of disturbed soil surfaces
   l. Vibration and survey monitoring
   m. Inspecting engineer and slope certification
   n. Transportation, handling, storage, and stockpiling of materials
   o. Other items not specified elsewhere but necessary for completion of this Work

2. Measurement for payment of this item shall be on a lump sum basis to complete the Work described in the Contract Documents. Payment shall be for the percentage of work completed based on an approved bid breakdown and as determined by the ENGINEER.
3.3 BID ITEM LS-3: CLEARING AND GRUBBING

A. General

1. This item shall consist of all materials, labor, and equipment to complete the Work as described in the Contract Documents. The Work shall include clearing and grubbing Work consisting of, but not limited to, the following components: clearing of vegetation within the limits of disturbance as necessary to complete Work of other Bid Items, grubbing within areas outside of the operable units but within the limits of disturbance as necessary to complete Work of other Bid Items, appropriate felling of trees, transportation of materials to OU-1, chipping and stockpiling of Vegetative Debris, and other items not specified elsewhere but necessary for completion of this Work.

B. Measurement for Payment

1. The CONTRACTOR shall submit a bid breakdown (Section III Bidding Information and Requirements: Article 12) for this Bid Item that shows the individual cost of executing and providing items in the scope of work for this Bid Item including but not limited to the following items:
   a. Clearing in Area 1 OU-1
   b. Clearing in Area 1 OU-2
   c. Clearing and Grubbing in Area 1 outside of OU-1 or OU-2
   d. Loading and Transportation to OU-1 of Vegetative Debris from Area 1 OU-2
   e. Clearing in Area 2 OU-2
   f. Clearing and Grubbing in Area 2 outside of OU-2
   g. Loading and Transportation to OU-1 of Vegetative Debris from Area 2
   h. Clearing in Area 3 OU-3
   i. Loading and Transportation to OU-1 of Vegetative Debris from Area 3
   j. Chipping of Vegetative Debris
   k. Transportation, handling, storage, and stockpiling of materials
   l. Other items not specified elsewhere but necessary for completion of this Work

2. Measurement for payment of this item shall be on a lump sum basis to complete the Work described in the Contract Documents. Payment shall be for the percentage of work completed based on an approved bid breakdown and as determined by the ENGINEER. The CONTRACTOR shall not be reimbursed for clearing of trees not marked for removal or clearing outside of the limits of disturbance without prior approval by the ENGINEER or DEPARTMENT.

3.4 BID ITEM LS-4: DEMOLITION AND ABANDONMENT

A. General

1. This item shall consist of all materials, labor, and equipment to complete the Work as described in the Contract Documents. The Work shall include demolition and
abandonment Work consisting of, but not limited to, the following components: demolition of sanitary sewer lines and manholes; abandonment of sanitary sewer manholes; plugging of sanitary sewer pipes; demolition of the chain link fence and gates; decommissioning of monitoring wells; handling and transportation of Debris associated with the activities, and other items not specified elsewhere but necessary for completion of this Work. This item does not include offsite disposal of Hazardous or Non-Hazardous Debris (see Bid Items UP-1 and UP-2).

B. Measurement for Payment

1. The CONTRACTOR shall submit a bid breakdown (Section III Bidding Information and Requirements: Article 12) for this Bid Item that shows the individual cost of executing and providing items in the scope of work for this Bid Item including but not limited to the following items:
   a. Demolition of Sanitary Sewer Lines
   b. Demolition of Sanitary Sewer Manholes
   c. Abandonment of Sanitary Sewer Manholes
   d. Plugging of Sanitary Sewer Pipes
   e. Handling and Transportation to OU-1 of Debris associated with Sanitary Sewer demolition
   f. Demolition of Chain Link Fence
   g. Demolition of Chain Link Fence Gates
   h. Decommissioning of Monitoring Wells
   i. Transportation, handling, storage, and stockpiling of materials
   j. Other items not specified elsewhere but necessary for completion of this Work

2. Measurement for payment of this item shall be on a lump sum basis to complete the Work described in the Contract Documents. Payment shall be for the percentage of work completed based on an approved bid breakdown and as determined by the ENGINEER.

3.5 BID ITEM LS-5: WATER MANAGEMENT

A. General

1. This item shall consist of all materials, labor, and equipment to complete the Work as described in the Contract Documents. The Work shall include surface water management, sediment and soil dewatering, excavation dewatering, and treatment and discharge of contaminated liquids consisting of, but not limited to, the following components: preparation and certification of the Surface Water Management Plan by the CONTRACTOR hired Professional Engineer; diversion of surface water around active Work areas; installation and removal of temporary surface water controls and conveyances necessary to complete Work; installation and removal of turbidity curtains, cofferdams, or other controls used to segregate active Work areas from Gulf Creek and surrounding wetlands; planning documents (including the Flood Contingency Plan); creek stage and weather monitoring; collection of water from active Work areas as necessary; installation and removal of soil dewatering pads; pumping of water to water...
treatment systems; installation, monitoring, operation, and removal of water treatment systems; sampling and analysis; discharge of treated water in accordance with the SPDES Equivalency Permit; installation and removal of discharge point erosion controls; soil handling for dewatering; and other items not specified elsewhere but necessary for completion of this Work.

B. Measurement for Payment

1. The CONTRACTOR shall submit a bid breakdown (Section III Bidding Information and Requirements: Article 12) for this Bid Item that shows the individual cost of executing and providing items in the scope of work for this Bid Item including but not limited to the following items:
   a. Completion and certification of the Surface Water Management Plan by a CONTRACTOR-hired Professional Engineer
   b. Installation and removal of surface water controls in Area 1 OU-2
   c. Installation and removal of surface water controls in Area 2 OU-2
   d. Installation and removal of surface water controls in Area 1 OU-1
   e. Completion of the Flood Contingency Plan
   f. Creek Stage and Weather Monitoring
   g. Installation and removal of dewatering pads
   h. Installation, operation, monitoring, and removal of water treatment systems
   i. Installation and removal of sumps, pumps, and piping systems
   j. Installation and removal of erosion controls at discharge points
   k. Handling of soil for dewatering
   l. Compliance with SPDES Equivalency permit requirements
   m. Transportation, handling, storage, and stockpiling of materials
   n. Other items not specified elsewhere but necessary for completion of this Work

2. Measurement for payment of this item shall be on a lump sum basis to complete the Work described in the Contract Documents. Payment shall be for the percentage of work completed based on an approved bid breakdown and as determined by the ENGINEER.

3.6 BID ITEM LS-6: CONTAINMENT CELL PREPARATION

A. General

1. This item shall consist of all materials, labor, and equipment to complete the Work as described in the Contract Documents. The Work shall include installation of the Buttress and Groundwater Underdrain, and excavation of Containment Cell Subgrade consisting of, but not limited to, the following components: preparation of the Slope Monitoring Plan and Action Thresholds by a CONTRACTOR-hired Professional Engineer; installation, monitoring, operation, and protection of the slope monitoring inclinometers; excavation, loading, transportation, and stockpiling of OU-1 Fill; excavation, loading, transportation, stockpiling, processing, and handling of Debris from OU-1; OU-1 Fill
testing; temporary soil stabilization; preparation for amendment process using OU-1 Fill; preparation of subgrade; installation of the groundwater trench and sump (including rock removal and associated planning documents and monitoring), Underdrain Stone, perforated pipe, and manhole; installation of Underdrain Geotextile; installation of Underdrain Stone; installation of Fine Stone Fill; installation of Light Stone Fill; installation of Riprap; installation of Grouted Riprap; and other items not specified elsewhere but necessary for completion of this Work. This item does not include excavation, loading, transportation, stockpiling, nor handling of OU-2 Sediment or Debris from within the Extent of Sediment Removal (see Bid Item UP-4).

B. Measurement for Payment

1. The CONTRACTOR shall submit a bid breakdown (Section III Bidding Information and Requirements: Article 12) for this Bid Item that shows the individual cost of executing and providing items in the scope of work for this Bid Item including but not limited to the following items:
   a. Preparation of the Slope Monitoring Plan and Action Thresholds by a CONTRACTOR hired Professional Engineer
   b. Installation, monitoring, operation, maintenance, and protection of the slope protection Inclinometers
   c. Excavation of OU-1 Fill
   d. Loading of OU-1 Fill
   e. Transportation of OU-1 Fill
   f. Stockpiling of OU-1 Fill
   g. Preparation for amendment process using OU-1 Fill
   h. OU-1 Fill testing (e.g., geotechnical, environmental)
   i. Excavation of Debris
   j. Loading of Debris
   k. Transportation of Debris
   l. Stockpiling of Debris
   m. Processing of Debris to meet definition of Acceptable Debris
   n. Segregation of Unacceptable Debris and preparation for offsite disposal under UP-1 or UP-2
   o. Temporary soil surface stabilization
   p. Rock removal for groundwater trench and sump
   q. Procurement and installation of Underdrain Geotextile
   r. Procurement and installation of perforated pipe and manhole
   s. Preparation of subgrade
   t. Imported material testing
   u. Procurement and installation of Buttress Underdrain Stone
v. Procurement and installation of Buttress Fine Stone Fill
w. Procurement and installation of Buttress Light Stone Fill
x. Procurement and installation of Buttress Riprap
y. Procurement and installation of Buttress Grouted Riprap
z. Transportation, handling, storage, and stockpiling of materials
aa. Performance of a five-day pilot test to prove out CONTRACTOR methods weighing and tracking material, mixing geotechnical reagent with OU-1 fill and sediment, and evaluation of undrained shear strength from prescribed dosages of geotechnical reagent.
bb. Other items not specified elsewhere but necessary for completion of this Work

2. Measurement for payment of this item shall be on a lump sum basis to complete the Work described in the Contract Documents. Payment shall be for the percentage of work completed based on an approved bid breakdown and as determined by the ENGINEER.

3.7 BID ITEM LS-7: CONTAINMENT CELL CAP

A. General

1. This item shall consist of all materials, labor, and equipment to complete the Work as described in the Contract Documents. The Work shall include installation of the Containment Cell Cap consisting of, but not limited to, the following components: testing; subgrade preparation; installation of Sand Gas Venting Layer; installation of Gas Vents; installation of geosynthetic clay liner (GCL); installation of Geomembrane; installation of Geocomposite drainage layer; installation of Barrier Protection Layer; installation of Topsoil; installation of stormwater conveyance features including perimeter channels, letdown channels, stormwater benches; installation of anchor trenches; installation of Perimeter Access Road; seeding of Upland Seed Mix; application of fertilizer and amendments; watering; and other items not specified elsewhere but necessary for completion of this Work.

B. Measurement for Payment

1. The CONTRACTOR shall submit a bid breakdown (Section III Bidding Information and Requirements: Article 12) for this Bid Item that shows the individual cost of executing and providing items in the scope of work for this Bid Item including but not limited to the following items:
   a. Preparation of subgrade
   b. Imported material testing
   c. Construction testing
   d. Procurement and installation of Sand Gas Venting Layer
   e. Procurement and installation of Gas Vents
   f. Procurement and installation of GCL
   g. Procurement and installation of Geomembrane
h. Procurement and installation of Geocomposite drainage layer
i. Procurement and installation of Stabilization Geotextile for Stormwater Benches, Perimeter Channels, Let-Down Channels
j. Procurement and installation of Fine Stone Fill for Stormwater Benches and Perimeter Channels
k. Procurement and installation of Light Stone Fill for Let-Down Channel (2%)
l. Procurement and installation of Grouted Medium Stone Fill for Let-Down Channel (20%)
m. Procurement and installation of Barrier Protection Layer
n. Procurement and installation of Type 3 Subbase for Perimeter Access Road
o. Procurement and installation of Surface Aggregate for Perimeter Access Road
p. Procurement and installation of Topsoil
q. Seeding of Upland Seed Mix
r. Application of fertilizers and amendments
s. Watering
t. Transportation, handling, storage, and stockpiling of materials
u. Other items not specified elsewhere but necessary for completion of this Work

2. Measurement for payment of this item shall be on a lump sum basis to complete the Work described in the Contract Documents. Payment shall be for the percentage of work completed based on an approved bid breakdown and as determined by the ENGINEER.

3.8 BID ITEM LS-8: LOCKPORT CITY LANDFILL SEDIMENT CELL (LCLSC) PREPARATION

A. General

1. This item shall consist of all materials, labor, and equipment to complete the Work as described in the Contract Documents. The Work shall include but not limited to, the following components: protection and/or modification of existing gas vents; excavation, loading, handling, transportation, and stockpiling of cover soils within the footprint of the LCLSC; temporary soil stabilization; preparation of subgrade; and other items not specified elsewhere but necessary for completion of this Work. This item does not include excavation, loading, transportation, stockpiling, nor handling of OU-2 Sediment or Debris from within the Extent of Sediment Removal (see Bid Item UP-5).

B. Measurement for Payment

1. The CONTRACTOR shall submit a bid breakdown (Section III Bidding Information and Requirements: Article 12) for this Bid Item that shows the individual cost of executing and providing items in the scope of work for this Bid Item including but not limited to the following items:
   a. Excavation, Loading, Handling, Transportation, and Stockpiling of Lockport City Landfill cover soils
b. Excavation and backfill of gravel trench

c. Protection and extension of existing gas vents to the top of Amended Fill Placement

d. Temporary soil surface stabilization

e. Lockport City Landfill cover soils material testing

f. Preparation of subgrade

g. Transportation, handling, storage, and stockpiling of materials

h. Performance of a five-day pilot test to prove out CONTRACTOR methods weighing and tracking material, mixing geotechnical reagent with sediment, and undrained shear strength from prescribed dosages of geotechnical reagent.

i. Other items not specified elsewhere but necessary for completion of this Work

2. Measurement for payment of this item shall be on a lump sum basis to complete the Work described in the Contract Documents. Payment shall be for the percentage of work completed based on an approved bid breakdown and as determined by the ENGINEER.

3.9 BID ITEM LS-9: LOCKPORT CITY LANDFILL SEDIMENT CELL (LCLSC) CAP

A. General

1. This item shall consist of all materials, labor, and equipment to complete the Work as described in the Contract Documents. The Work shall include installation of the Lockport City Landfill Sediment Cell (LCLSC) Cap consisting of, but not limited to, the following components: testing; subgrade preparation; installation of Geocomposite Gas Venting Layer; extension of existing Gas Vents through LCLSC Cap; installation of Gas Vents; installation of geosynthetic clay liner (GCL); installation of Geomembrane; installation of Geocomposite drainage layer; installation of Barrier Protection Layer; installation of Topsoil; installation of stormwater conveyance features including the Perimeter Letdown Channel and Stormwater Benches; installation of anchor trench and toe drain; seeding of Upland Seed Mix; application of fertilizer and amendments; watering; and other items not specified elsewhere but necessary for completion of this Work.

B. Measurement for Payment

1. The CONTRACTOR shall submit a bid breakdown (Section III Bidding Information and Requirements: Article 12) for this Bid Item that shows the individual cost of executing and providing items in the scope of work for this Bid Item including but not limited to the following items:

a. Preparation of subgrade

b. Imported material testing

c. Construction testing

d. Procurement and installation of Existing Gas Vent Extensions through LCLSC Cap

e. Procurement and installation of Geocomposite Gas Venting Layer

f. Procurement and installation of Gas Vents
g. Procurement and installation of GCL
h. Procurement and installation of Geomembrane
i. Procurement and installation of Geocomposite drainage layer
j. Procurement and installation of Stabilization Geotextile for Stormwater Benches, Perimeter Let-Down Channel
k. Procurement and installation of No.1 Crushed Stone for the Anchor Trench Toe Drain
l. Procurement and installation of Fine Stone Fill for Stormwater Benches and Perimeter Channels
m. Procurement and installation of Light Stone Fill for Perimeter Let-Down Channel (2%)
n. Procurement and installation of Medium Stone Fill for Perimeter Let-Down Channel (20%)
o. Procurement and installation of Barrier Protection Layer
p. Procurement and installation of Topsoil
q. Seeding of Upland Seed Mix
r. Application of fertilizers and amendments
s. Watering
t. Transportation, handling, storage, and stockpiling of materials
u. Other items not specified elsewhere but necessary for completion of this Work

2. Measurement for payment of this item shall be on a lump sum basis to complete the Work described in the Contract Documents. Payment shall be for the percentage of work completed based on an approved bid breakdown and as determined by the ENGINEER.

3.10 BID ITEM LS-10: RESTORE OU-1

A. General

1. This item shall consist of all materials, labor, and equipment to complete the Work as described in the Contract Documents. The Work shall include Restoration of OU-1 and adjacent areas within Area 1 consisting of, but not limited to, the following components: resurfacing of Area 1 Site Access Road; demolition and replacement of Old Upper Mountain Road pavement and subbase; installation of Chain Link Fence and gates; seeding and permanent stabilization of upland areas not included in other bid items; application of fertilizer and amendments; watering; maintenance of vegetation during the Vegetation Establishment Period; and other items not specified elsewhere but necessary for completion of this Work.

B. Measurement for Payment

1. The CONTRACTOR shall submit a bid breakdown (Section III Bidding Information and Requirements: Article 12) for this Bid Item that shows the individual cost of executing
and providing items in the scope of work for this Bid Item including but not limited to the following items:

a. Removal and replacement of roadbed from the Area 1 Site Access Road
b. Demolition and removal of existing Old Upper Mountain Road pavement and subbase
c. Procurement and installation of Binder Course for Old Upper Mountain Road and site entrances
d. Procurement and installation of Wearing Course for Old Upper Mountain Road and site entrances
e. Procurement and installation of Chain Link Fence and Gates
f. Vegetation establishment of staging and stockpiling areas
g. Seeding of Upland Seed Mix
h. Application of fertilizers and amendments
i. Watering
j. Maintenance of vegetation during the Vegetation Establishment Period;
k. Transportation, handling, storage, and stockpiling of materials
l. Other items not specified elsewhere but necessary for completion of this Work

2. Measurement for payment of this item shall be on a lump sum basis to complete the Work described in the Contract Documents. Payment shall be for the percentage of work completed based on an approved bid breakdown and as determined by the ENGINEER.

3.11 BID ITEM LS-11: RESTORE OU-2

A. General

1. This item shall consist of all materials, labor, and equipment to complete the Work as described in the Contract Documents. The Work shall include Restoration of OU-2 within Area 1 and Area 2 consisting of, but not limited to, the following components: installation of Common Fill; grading of stream channel, terraces, floodplain pools, and floodplains; installation of Wetland Topsoil; installation of Topsoil; installation of Area 2 Riffle Stone; installation of Rolled Erosion Control Blanket; installation of Pool Enhancement Features; installation of Cascade Grade Protection; installation of Plunge Pool; vegetation establishment of staging and storage areas; seeding the High Terrace Seed Mix; seeding the Low Terrace Seed Mix; installation of Live Stake Plantings; installation of Plugs; installation of trees; installation of shrubs; application of fertilizer and amendments; watering; maintenance of vegetation during the Vegetation Establishment Period; and other items not specified elsewhere but necessary for completion of this Work.

B. Measurement for Payment

1. The CONTRACTOR shall submit a bid breakdown (Section III Bidding Information and Requirements: Article 12) for this Bid Item that shows the individual cost of executing
and providing items in the scope of work for this Bid Item including but not limited to the following items:

a. Preparation of subgrade
b. Imported material testing
c. Construction testing
d. Procurement and installation of Common Fill
e. Grading of stream channel, pools, terraces, floodplain pools, and floodplain
f. Procurement and installation of Wetland Topsoil
g. Procurement and installation of Topsoil
h. Procurement and installation of Area 1 Riffle Stone
i. Procurement and installation of Area 2 Riffle Stone
j. Procurement and installation of Rolled Erosion Control Blanket
k. Procurement and installation of Pool Enhancement Features
l. Procurement and installation of Plunge Pool
m. Procurement and installation of Cascade Grade Protection
n. Vegetation establishment in staging and stockpiling areas
o. Preparation of subgrade for seeding and planting
p. Seeding of High Terrace Seed Mix
q. Seeding of Low Terrace Seed Mix
r. Procurement and installation of Live Stake Plantings
s. Procurement and installation of Plugs
t. Procurement and installation of trees
u. Procurement and installation of shrubs
v. Application of fertilizers and amendments
w. Watering
x. Maintenance of vegetation during the Vegetation Establishment Period
y. Transportation, handling, storage, and stockpiling of materials
z. Other items not specified elsewhere but necessary for completion of this Work

2. Measurement for payment of this item shall be on a lump sum basis to complete the Work described in the Contract Documents. Payment shall be for the percentage of work completed based on an approved bid breakdown and as determined by the ENGINEER.

3.12 BID ITEM LS-12: GULF CREEK SEEP AREA REPAIR AND RESTORATION

A. General
1. This item shall consist of all materials, labor, and equipment to complete the Work as described in the Contract Documents. The Work shall include but not limited to the following components: constructing access to the Gulf Creek Seep Area (not including the proposed Landfill Access Road to top of slope), removal of concrete encased corrugated metal pipe from Gulf Creek, excavation of streambank soils, furnish and install a precast concrete GAC Vault, excavation and construction of a French Drain, cut back and abandon existing 36 inch diameter concrete pipe, placement of Stone Revetment, Seep Area Restoration, and other items not specified elsewhere but necessary for completion of this Work.

B. Measurement for Payment

1. The CONTRACTOR shall submit a bid breakdown (Section III Bidding Information and Requirements: Article 12) for this Bid Item that shows the individual cost of executing and providing items in the scope of work for this Bid Item including but not limited to the following items:
   a. Tree Clearing (to be minimized) to access Seep Area and perform work
   b. Removal of concrete encased corrugated metal pipe (CMP) from Gulf Creek
   c. Excavation, loading, transportation, stockpiling, processing, amendment, handling, and placement in the LCLSC of soil materials from the Gulf Creek Seep Area
   d. Furnish and install a precast concrete GAC Vault
   e. Furnish labor, equipment, and materials for the excavation and construction of the French Drain
   f. Demolish and abandon (plug) the existing 36-inch diameter concrete pipe
   g. Processing of Debris to meet definition of Acceptable Debris
   h. Imported material testing
   i. Construction testing
   j. Procurement and installation of Riprap Bedding
   k. Procurement and installation of Medium Stone Filling
   l. Procurement and installation of No.1 Crushed Stone (French Drain and under GAC Vault)
   m. Procurement and installation of Granulated Activated Carbon (GAC)
   n. Procurement and installation of precast concrete GAC vault and all associated pipes and appurtenances
   o. Transportation, handling, storage, and stockpiling of materials
   p. Other items not specified elsewhere but necessary for completion of this Work

2. Measurement for payment of this item shall be on a lump sum basis to complete the Work described in the Contract Documents. Payment shall be for the percentage of work completed based on an approved bid breakdown and as determined by the ENGINEER.
3.13 BID ITEM LS-13: OU-3 CLEAN SOIL CAP

A. General

1. This item shall consist of all materials, labor, and equipment to complete the Work as described in the Contract Documents. The Work shall include installation of the Clean Soil Cap consisting of, but not limited to, the following components: grading of OU-3; grubbing of stumps and transportation to OU-1; installation of Stabilization Geotextile; installation of Common Fill; installation of Topsoil; vegetation establishment of staging and stockpiling areas; seeding of Upland Seed Mix; application of fertilizer and amendments; watering; and other items not specified elsewhere but necessary for completion of this Work. This item does not include offsite disposal of Debris (see Bid Items UP-1 and UP-2).

B. Measurement for Payment

1. The CONTRACTOR shall submit a bid breakdown (Section III Bidding Information and Requirements: Article 12) for this Bid Item that shows the individual cost of executing and providing items in the scope of work for this Bid Item including but not limited to the following items:
   a. Grading of Clean Soil Cap Area
   b. Grubbing of stumps
   c. Handling and transportation of stumps as Debris
   d. Procurement and installation of Stabilization Geotextile
   e. Imported material testing
   f. Construction testing
   g. Procurement and installation of Common Fill
   h. Procurement and installation of Topsoil
   i. Seeding of Upland Seed Mix
   j. Application of fertilizers and amendments
   k. Watering
   l. Transportation, handling, storage, and stockpiling of materials
   m. Other items not specified elsewhere but necessary for completion of this Work

2. Measurement for payment of this item shall be on a lump sum basis to complete the Work described in the Contract Documents. Payment shall be for the percentage of work completed based on an approved bid breakdown and as determined by the ENGINEER.

3.14 BID ITEM UP-1: HAZARDOUS DEBRIS TRANSPORTATION AND DISPOSAL

A. General

1. This item shall consist of all materials, labor, and equipment to complete the Work as described in the Contract Documents. The Work shall include handling, transportation, and disposal of Hazardous Debris consisting of, but not limited to, the following
components: loading of Hazardous Debris; transportation of Hazardous Debris; disposal of Hazardous Debris; waste profiling; compliance with disposal facility requirements; and other items not specified elsewhere but necessary for completion of this Work.

B. Measurement for Payment

1. The CONTRACTOR shall submit a bid breakdown (Section III Bidding Information and Requirements: Article 12) for this Bid Item that shows the individual cost of executing and providing items in the scope of work for this Bid Item including but not limited to the following items:
   a. Segregation of Hazardous Debris
   b. Loading of Hazardous Debris
   c. Transportation of Hazardous Debris
   d. Disposal of Hazardous Debris
   e. Waste Profiling of Hazardous Debris
   f. Compliance with Disposal Facility requirements
   g. Other items not specified elsewhere but necessary for completion of this Work

2. Measurement for payment of this items shall be on the actual quantity of material which is properly sampled, transported and disposed as indicated on certified weight tickets and documented on disposal manifests, and in accordance with the ENGINEER’s records. CONTRACTOR shall provide CONTRACTOR’s reuse, recycling, and disposal report as back up for invoices.

3. Payment shall be made per ton (2,000 pounds) or portion thereof.

3.15 BID ITEM UP-2: NON-HAZARDOUS DEBRIS TRANSPORTATION AND DISPOSAL

A. General

1. This item shall consist of all materials, labor, and equipment to complete the Work as described in the Contract Documents. The Work shall include handling, transportation, and disposal of Non-Hazardous Debris consisting of, but not limited to, the following components: loading of Non-Hazardous Debris; transportation of Non-Hazardous Debris; disposal of Non-Hazardous Debris; waste profiling; compliance with disposal facility requirements; and other items not specified elsewhere but necessary for completion of this Work.

B. Measurement for Payment

1. The CONTRACTOR shall submit a bid breakdown (Section III Bidding Information and Requirements: Article 12) for this Bid Item that shows the individual cost of executing and providing items in the scope of work for this Bid Item including but not limited to the following items:
   a. Decontamination of Unacceptable Debris
   b. Segregation of Non-Hazardous Debris
c. Loading of Non-Hazardous Debris
d. Transportation of Non-Hazardous Debris
e. Disposal of Non-Hazardous Debris
f. Waste Profiling of Non-Hazardous Debris
g. Compliance with Disposal Facility requirements
h. Other items not specified elsewhere but necessary for completion of this Work

2. Measurement for payment of this items shall be on the actual quantity of material which is properly sampled, transported and disposed as indicated on certified weight tickets and documented on disposal manifests, and in accordance with the ENGINEER’s records. CONTRACTOR shall provide CONTRACTOR’s reuse, recycling, and disposal report as back up for invoices.

3. Payment shall be made per ton (2,000 pounds) or portion thereof.

3.16 BID ITEM UP-3: UNSATISFACTORY SUBGRADE EXCAVATION, TRANSPORTATION, AMENDMENT, PLACEMENT, AND BACKFILL

A. General

1. This item shall consist of all materials, labor, and equipment to complete the Work as described in the Contract Documents. The Work shall include excavation of unsatisfactory subgrade and backfilling consisting of, but not limited to, the following components: excavation, loading, transportation, and stockpiling of unsatisfactory subgrade materials; material testing; preparation for mixing materials into Amended Fill for placement into Containment Cell or LCLSC; installation of Common Fill; and other items not specified elsewhere but necessary for completion of this Work.

B. Measurement for Payment

1. The CONTRACTOR shall submit a bid breakdown (Section III Bidding Information and Requirements: Article 12) for this Bid Item that shows the individual cost of executing and providing items in the scope of work for this Bid Item including but not limited to the following items:
   a. Excavation of Unsatisfactory Subgrade Materials
   b. Loading of Unsatisfactory Subgrade Materials
   c. Transportation of Unsatisfactory Subgrade Materials
   d. Stockpiling of Unsatisfactory Subgrade Materials
   e. Preparation for mixing with Amended Fill for placement into Containment Cell and LCLSC
   f. Material testing
   g. Excavation of Debris within areas of Unsatisfactory Subgrade Materials
   h. Loading of Debris from within areas of Unsatisfactory Subgrade Materials
   i. Transportation of Debris from areas of Unsatisfactory Subgrade Materials
j. Stockpiling of Debris from within areas of Unsatisfactory Subgrade Materials  
k. Imported material testing  
l. Construction testing  
m. Procurement and installation of Common Fill into Unsatisfactory Subgrade Material excavations  
n. Transportation, handling, storage, and stockpiling of materials  
o. Other items not specified elsewhere but necessary for completion of this Work  

2. Measurement for payment of this item shall be on a cubic yard basis for the actual quantity of in situ Unsatisfactory Subgrade Material and Debris removed as directed by the ENGINEER. This item shall be measured and calculated based on pre- and post-excavation surveys completed by a land surveyor licensed to practice in New York State. Surveys shall be provided to ENGINEER for volume calculation. Payment for surveys shall be under UP-8.

3. Payment shall be made per cubic yard or portion thereof.

3.17 BID ITEM UP-4: AREA 1 OU-2 SEDIMENT EXCAVATION, TRANSPORTATION, AMENDMENT, AND PLACEMENT  

A. General  

1. This item shall consist of all materials, labor, and equipment to complete the Work as described in the Contract Documents. The Work shall include excavation, transportation, amendment, and placement of OU-2 Sediment from Area 1 OU-2, consisting of, but not limited to, the following components: installation and removal of temporary access roads within Area 1 OU-2; excavation, loading, transportation, stockpiling, and handling of Area 1 OU-2 sediment; excavation, loading, transportation, stockpiling, processing, and handling of Debris from Area 1 OU-2; testing of Area 1 OU-2 Sediment; mixing of OU-2 Sediment, OU-1 Fill, Acceptable Vegetative Debris, Acceptable Debris, Unsatisfactory Subgrade Materials, and other approved materials; testing of OU-2 Sediment/OU-1 Fill mixture; amendment with a Geotechnical Reagent (up to 10% by dry weight); testing of Amended Fill; placement and compaction of Amended Fill in Containment Cell; and other items not specified elsewhere but necessary for completion of this Work.

B. Measurement for Payment  

1. The CONTRACTOR shall submit a bid breakdown (Section III Bidding Information and Requirements: Article 12) for this Bid Item that shows the individual cost of executing and providing items in the scope of work for this Bid Item including but not limited to the following items:
   a. Installation and removal of temporary access road within OU-2 Area 1  
   b. Excavation of Area 1 OU-2 Sediment  
   c. Excavation of Debris  
   d. Loading of Debris  
   e. Transportation of Debris
f. Stockpiling of Debris

F. Processing of Debris to meet definition of Acceptable Debris

h. Segregation of Unacceptable Debris and preparation for offsite disposal under UP-1 or UP-2

i. Transportation of Area 1 OU-2 Sediment from excavation areas to dewatering pad

j. Transportation of Area 1 OU-2 Sediment from dewatering pad to stockpiling and processing location

k. Loading and handling of Area 1 OU-2 Sediment and other materials during processing

l. Measurement (weights and/or volume), documentation, and reporting of quantities of Area 1 OU-2 Sediment, OU-1 Fill, Water, Geotechnical Reagent, Acceptable Vegetative Debris, and Acceptable Debris added to and incorporated in the production of Amended Fill

m. Mixing of Area 1 OU-2 Sediment with OU-1 Fill, Acceptable Vegetative Debris, Acceptable Debris, Unsatisfactory Subgrade Materials, and other approved materials

n. Amendment of materials with a Geotechnical Reagent

o. Loading, Transportation, placement, and compaction of Amended Fill into Containment Cell

p. Testing of Area 1 OU-2 Sediment

q. Testing of Area 1 OU-2 Sediment/OU-1 Fill Mixture

r. Testing of Amended Fill

s. Construction Testing

t. Transportation, handling, storage, and stockpiling of materials

u. Other items not specified elsewhere but necessary for completion of this Work

2. Measurement for payment of this item shall be on a cubic yard basis for the actual quantity of in situ Area 1 OU-2 Sediment and Debris removed as directed by the ENGINEER. This item shall be measured and calculated based on pre- and post-excavation surveys completed by a land surveyor licensed to practice in New York State. Surveys shall be provided to ENGINEER for volume calculation. Payment for Geotechnical Reagent shall be under UP-6 and surveys shall be under UP-8.

3. Payment shall be made per cubic yard or portion thereof.

3.18 BID ITEM UP-5: AREA 2 OU-2 SEDIMENT EXCAVATION, TRANSPORATION, AMENDMENT, AND PLACEMENT

A. General

1. This item shall consist of all materials, labor, and equipment to complete the Work as described in the Contract Documents. The Work shall include excavation, transportation, amendment, and placement of OU-2 Sediment from Area 2 OU-2, consisting of, but not limited to, the following components: installation and removal of temporary access roads within Area 2 OU-2; excavation, loading, transportation, stockpiling, and handling of
Area 2 OU-2 sediment; excavation, loading, transportation, stockpiling, processing, and handling of Debris from Area 2 OU-2; testing of Area 2 OU-2 Sediment; mixing of OU-2 Sediment, Acceptable Vegetative Debris, Acceptable Debris, Unsatisfactory Subgrade Materials, and other approved materials; amendment with a Geotechnical Reagent (up to 15% by dry weight); testing of Amended Fill; placement and compaction of Amended Fill in the Lockport City Landfill Sediment Cell (LCLSC); and other items not specified elsewhere but necessary for completion of this Work.

B. Measurement for Payment

1. The CONTRACTOR shall submit a bid breakdown (Section III Bidding Information and Requirements: Article 12) for this Bid Item that shows the individual cost of executing and providing items in the scope of work for this Bid Item including but not limited to the following items:
   a. Installation and removal of temporary access road with OU-2 Area 2
   b. Excavation of Area 2 OU-2 Sediment
   c. Excavation of Debris
   d. Loading of Debris
   e. Transportation of Debris
   f. Stockpiling of Debris
   g. Processing of Debris to meet definition of Acceptable Debris
   h. Segregation of Unacceptable Debris and preparation for offsite disposal under UP-1 or UP-2
   i. Transportation of Area 2 OU-2 Sediment from excavation areas to dewatering pad
   j. Transportation of Area 2 OU-2 Sediment from dewatering pad to stockpiling and processing location
   k. Loading and handling of Area 2 OU-2 Sediment and other materials during processing
   l. Measurement (weights and/or volume), documentation, and reporting of quantities of Area 2 OU-2 Sediment, Water, Geotechnical Reagent, Acceptable Vegetative Debris, and Acceptable Debris added to and incorporated in the production of Amended Fill
   m. Mixing of Area 2 OU-2 Sediment with Acceptable Vegetative Debris, Acceptable Debris, Unsatisfactory Subgrade Materials, and other approved materials
   n. Amendment of materials with a Geotechnical Reagent
   o. Loading, Transportation, placement, and compaction of Amended Fill into the LCLSC
   p. Testing of Area 2 OU-2 Sediment
   q. Field and laboratory testing of Amended Fill
   r. Construction Testing
   s. Transportation, handling, storage, and stockpiling of materials
t. Other items not specified elsewhere but necessary for completion of this Work

2. Measurement for payment of this item shall be on a cubic yard basis for the actual quantity of in situ Area 2 OU-2 Sediment and Debris removed as directed by the ENGINEER. This item shall be measured and calculated based on pre- and post-excavation surveys completed by a land surveyor licensed to practice in New York State. Surveys shall be provided to ENGINEER for volume calculation. Payment for Geotechnical Reagent shall be under UP-6 and surveys shall be under UP-8.

3. Payment shall be made per cubic yard or portion thereof.

3.19 BID ITEM UP-6: GEOTECHNICAL REAGENT

A. General

1. This item shall consist of all materials, labor, and equipment to complete the Work as described in the Contract Documents. The Work shall include procurement, transportation, staging, storage, and dispensing of Geotechnical Reagent(s) up to 10% by dry weight of waste to produce amended fill for placement in the OU-1 Containment Cell and up to 15% by dry weight of waste to produce amended fill for placement in the LCLSC, as necessary to meet the respective Acceptance Criteria and other items not specified elsewhere but necessary for completion of this Work.

B. Measurement for Payment

1. The CONTRACTOR shall submit a bid breakdown (Section III Bidding Information and Requirements: Article 12) for this Bid Item that shows the individual cost of executing and providing items in the scope of work for this Bid Item including but not limited to the following items:
   a. Procurement and transportation of Geotechnical Reagents
   b. Facilities and equipment necessary for safe and effective handling, staging, storage, and dispensing of Geotechnical Reagents
   c. Other items not specified elsewhere but necessary for completion of this Work

2. Measurement for payment of this item shall be on a tonnage basis of the actual quantity of Geotechnical Reagents by dry weight mixed with Amended Fill to meet the Acceptance Criteria. This item shall be measured using site scales, verified based on delivery receipts of amendment and in accordance with the ENGINEER's records.

3. Payment shall be made per ton (2,000 pounds) of Geotechnical Reagents or portion thereof.

3.20 BID ITEM UP-7: TREATMENT OF OU-1 FILL FOR LEAD

A. General

1. This item shall consist of all materials, labor, and equipment to complete the Work as described in the Contract Documents. The Work shall include treatment of OU-1 Fill materials determined to exhibit hazardous characteristics by the Toxicity Characteristic Leaching Procedure (TCLP), Test Method 1311 (EPA Publication SW-846) for Lead
(D008) as necessary to ensure that only non-hazardous OU-1 Fill is placed on the private parcel identified as 108.00-1-18 (5723 Old Upper Mountain Road). This Work includes, but is not limited to, collection and analysis of up to fifteen (15) characterization samples from the OU-1 fill by Test Method 1311 (EPA Publication SW-846), procurement of an environmental reagent, treatment of hazardous OU-1 Fill with the environment reagent, collection of up to six (6) post treatment verification sampling and analysis by Test Method 1311 (EPA Publication SW-846); and other items not specified elsewhere but necessary for completion of this Work.

B. Measurement for Payment

1. The CONTRACTOR shall submit a bid breakdown (Section III Bidding Information and Requirements: Article 12) for this Bid Item that shows the individual cost of executing and providing items in the scope of work for this Bid Item including but not limited to the following items:
   a. Procurement and transportation of Environmental Reagents
   b. Facilities and equipment necessary for safe and effective handling, staging, storage, and dispensing of Environmental Reagents Treatment, mixing, and amendment of hazardous OU-1 Fill with the Environmental Reagent
   c. Environmental testing by the Toxicity Characteristic Leaching Procedure (TCLP), Test Method 1311 (EPA Publication SW-846) for Lead (D008) to characterize OU-1 fill and verify treatment success
   d. Other items not specified elsewhere but necessary for completion of this Work

2. Measurement for payment of this item shall be on a tonnage basis of the actual quantity of Environmental Reagents by dry weight mixed with hazardous OU-1 Fill to meet the Acceptance Criteria for material to be placed on the identified parcel. This item shall be measured based on onsite scales, verified based on delivery receipts of amendment, and in accordance with the ENGINEER’s records.

3. Payment shall be made per ton (2,000 pounds) of Environmental Reagents or portion thereof.

3.21 BID ITEM UP-8: SITE SERVICES

A. General

1. This item shall consist of all materials, labor, and equipment to complete the Work as described in the Contract Documents. The Work shall include Site Services consisting of, but not limited to, the following components: providing site security; installation, maintenance, operation, and removal of traffic controls; installation, operation, maintenance, and removal of temporary utilities and facilities; setup, operation, maintenance, cleaning, and removal of CONTRACTOR’s and ENGINEER’s field offices; installation, maintenance, and removal of project signs; project meetings and documentation; site superintendence; installation, maintenance, operation, and removal of decontamination controls; installation, operation, and removal of temporary utilities; protection and maintenance of utilities not scheduled for removal or Work; surveying of work progress for field verification, establishing and maintaining horizontal and vertical control, providing construction layout, as-built surveys, and surveys for payment
calculations (including pre-construction surveys, excavation surveys, backfill surveys, and restoration surveys); installation, maintenance, and removal of adequate erosion and sedimentation controls to prevent or minimize the negative impact to surrounding environment; access road maintenance; photographic documentation; winterization of facilities and equipment; inspections; snow management; activities necessary to prepare and maintain the site during a Winter Shutdown; and other items not specified elsewhere but necessary for completion of this Work.

B. Measurement for Payment

1. The CONTRACTOR shall submit a bid breakdown (Section III Bidding Information and Requirements: Article 12) for this Bid Item that shows the individual cost of executing and providing items in the scope of work for this Bid Item including but not limited to the following items:
   a. Providing site security
   b. Installation, maintenance, operation, and removal of traffic controls
   c. Installation, maintenance, and removal of temporary fencing
   d. Installation, operation, maintenance, and removal of temporary utilities and facilities except those identified in LS-1
   e. Setup, operation, maintenance, cleaning, and removal of CONTRACTOR’s and ENGINEER’s field offices
   f. Installation, maintenance, and removal of project signs
   g. Project meetings and documentation
   h. Site superintendence
   i. Installation, maintenance, operation, and removal of decontamination controls
   j. Installation, operation, and removal of temporary utilities
   k. Protection and maintenance of utilities and infrastructure not scheduled for removal or Work
   l. Surveying of work progress for field verification, establishing and maintaining horizontal and vertical control, providing construction layout, as-built surveys, and surveys for payment calculations (including pre-construction surveys, excavation surveys, backfill surveys, and restoration surveys)
   m. Installation, maintenance, and removal of adequate erosion and sedimentation controls to prevent or minimize the negative impact to surrounding environment
   n. Access road maintenance
   o. Photographic documentation (pre-construction, progress, and final)
   p. Winterization of facilities and equipment
   q. Inspections
   r. Other items not specified elsewhere but necessary for completion of this Work.
2. Measurement for payment of this item shall be on a per calendar day beginning after satisfactory installation of site facilities and shall end at substantial completion or at the end of the Contract Time specified in Section VI Article 6, whichever occurs first.

3. Payment shall be unit price bid for each individual item described above as submitted in the CONTRACTOR's bid breakdown.

4. For each calendar day where a sub-item identified in the Bid Breakdown is unsatisfactory or deficient as determined by the ENGINEER, the sub-item’s value will be reduced by one hundred (100) percent.

5. This item shall not include days during winter shutdown which will be paid under Bid Item UP-10.

3.22 BID ITEM UP-9: HEALTH AND SAFETY

A. General

1. This item shall consist of all materials, labor, and equipment to complete the Work as described in the Contract Documents. The Work shall include development and implementation of the CONTRACTOR’s Site Specific Health and Safety Plan consisting of, but not limited to, the following components: development and implementation of the Site Specific Health and Safety Plan; health and safety officer; health and safety equipment and consumable supplies; air monitoring; emergency and spill response; accident reporting; development and implementation of the Hazardous Materials Management Program; COVID-19 management and controls; nuisance controls and management; sampling, analysis, handling, and disposal of personal protective equipment and decontamination wastes not specifically included in other bid items; and other items not specified elsewhere but necessary for completion of this Work.

B. Measurement for Payment

1. The CONTRACTOR shall submit a bid breakdown (Section III Bidding Information and Requirements: Article 12) for this Bid Item that shows the individual cost of executing and providing items in the scope of work for this Bid Item including but not limited to the following items:
   a. Development and implementation of the Site Specific Health and Safety Plan
   b. Health and safety officer
   c. Health and safety equipment and consumable supplies
   d. Air monitoring and daily reporting
   e. Odor control
   f. Emergency and spill response
   g. Accident reporting
   h. Development and implementation of the Hazardous Materials Management Program
   i. COVID-19 management and controls
   j. Nuisance controls and management
k. Sampling, analysis, handling, and disposal of personal protective equipment and decontamination wastes not specifically included in other bid items
l. Other items not specified elsewhere but necessary for completion of this Work

2. Measurement for payment of this item shall be per day in which work occurs at the Site beginning upon mobilization to the Site and shall end at substantial completion or at the end of the Contract Time specified in Section VI Article 6, whichever occurs first.

3. A 100 percent reduction in payment would occur for each calendar day that the CONTRACTOR fails to adhere to the Site Specific Health and Safety Plan as determined by the ENGINEER.

4. No payment will be made for Saturdays, Sundays, and holidays specified in Section XIII unless work onsite is completed on those days.

5. This item shall not include days during winter shutdown which will be paid under Bid Item UP-10.

3.23 BID ITEM UP-10: WINTER SHUTDOWN/WINTERIZATION OF THE SITE

A. General

1. This item shall consist of all materials, labor, and equipment for temporary winter shutdown as specified and directed herein, and include all Work to properly provide, operate, monitor, and maintain the temporary Site facilities and services throughout the shutdown period until remobilization, including, but not limited to, the following components: preparation of the site for winter; providing site security; maintenance of temporary fencing and staging/stockpile areas; operation and maintenance of temporary utilities and facilities; maintenance and cleaning of CONTRACTOR’s and ENGINEER’s field offices; maintenance of project signs; project meetings and documentation during Winter Shutdown; site superintendence; maintenance of adequate erosion and sedimentation controls to prevent or minimize the negative impact to surrounding environment; maintenance of access roads; and other items not specified elsewhere but necessary for completion of this Work.

2. This item shall also include costs necessary for demobilization and mobilization at the start and end of each winter shutdown period.

B. Measurement for Payment

1. The CONTRACTOR shall submit a bid breakdown (Section III Bidding Information and Requirements: Article 12) for this Bid Item that shows the individual cost of executing and providing items in the scope of work for this Bid Item including but not limited to the following items:
   a. Preparation of the site for winter
   b. Providing site security
   c. Maintenance of temporary fencing and staging/stockpile areas
   d. Operation and maintenance of temporary utilities and facilities
e. Maintenance and cleaning of CONTRACTOR’s and ENGINEER’s field offices and other temporary facilities
f. Maintenance of project signs
g. Winterization of facilities and equipment to be left onsite
h. Weekly inspections
i. Snow management for weekly inspections and for remobilization
j. Project meetings and documentation during Winter Shutdown
k. Site superintendence
l. Inspection and maintenance of adequate erosion and sedimentation controls to prevent or minimize the negative impact to surrounding environment
m. Maintenance of access roads
n. Demobilization and remobilization to Area 1, Area 2, and Area 3 as necessary for each winter shutdown period
o. Other items not specified elsewhere but necessary for completion of this Work.

2. Measurement for payment of this item shall be per calendar day beginning after demobilization for winter shutdown and shall end at remobilization following winter shutdown.

3. Payment shall be unit price bid for each individual item described above as submitted in the CONTRACTOR’s bid breakdown.

4. For each calendar day where a sub-item identified in the Bid Breakdown is unsatisfactory or deficient as determined by the ENGINEER, the sub-item’s value will be reduced by one hundred (100) percent.

5. This item shall not include days paid under Bid Item UP-8.

END OF SECTION XII
SECTION XIII

Wage Rates and Associated Contract Requirements
Kathy Hochul, Governor

Robert Reardon, Commissioner

Div. Environmental Remediation
Matthew Smith
269 West Jefferson Street
Syracuse NY 13202

Schedule Year 2021 through 2022
Date Requested 08/17/2021
PRC# 2021008719

Location Old Upper Mountain Road
Project ID# D012107
Project Type Environmental remediation of the Old Upper Mountain Road Hazardous Waste Site, NYSDEC Site No. 932112, including dredging, material consolidation, grading, containment cell construction, and site

PREVAILING WAGE SCHEDULE FOR ARTICLE 8 PUBLIC WORK PROJECT

Attached is the current schedule(s) of the prevailing wage rates and prevailing hourly supplements for the project referenced above. A unique Prevailing Wage Case Number (PRC#) has been assigned to the schedule(s) for your project.

The schedule is effective from July 2021 through June 2022. All updates, corrections, posted on the 1st business day of each month, and future copies of the annual determination are available on the Department's website www.labor.ny.gov. Updated PDF copies of your schedule can be accessed by entering your assigned PRC# at the proper location on the website.

It is the responsibility of the contracting agency or its agent to annex and make part, the attached schedule, to the specifications for this project, when it is advertised for bids and/or to forward said schedules to the successful bidder(s), immediately upon receipt, in order to insure the proper payment of wages.

Please refer to the "General Provisions of Laws Covering Workers on Public Work Contracts" provided with this schedule, for the specific details relating to other responsibilities of the Department of Jurisdiction.

Upon completion or cancellation of this project, enter the required information and mail OR fax this form to the office shown at the bottom of this notice, OR fill out the electronic version via the NYSDOL website.

NOTICE OF COMPLETION / CANCELLATION OF PROJECT

Date Completed: __________________________  Date Cancelled: __________________________

Name & Title of Representative: ______________________________________________________

Phone: (518) 457-5589  Fax: (518) 485-1870
W. Averell Harriman State Office Campus, Bldg. 12, Room 130, Albany, NY 12240

www.labor.ny.gov.
General Provisions of Laws Covering Workers on Article 8 Public Work Contracts

Introduction

The Labor Law requires public work contractors and subcontractors to pay laborers, workers, or mechanics employed in the performance of a public work contract not less than the prevailing rate of wage and supplements (fringe benefits) in the locality where the work is performed.

Responsibilities of the Department of Jurisdiction

A Department of Jurisdiction (Contracting Agency) includes a state department, agency, board or commission: a county, city, town or village; a school district, board of education or board of cooperative educational services; a sewer, water, fire, improvement and other district corporation; a public benefit corporation; and a public authority awarding a public work contract.

The Department of Jurisdiction (Contracting Agency) awarding a public work contract MUST obtain a Prevailing Rate Schedule listing the hourly rates of wages and supplements due the workers to be employed on a public work project. This schedule may be obtained by completing and forwarding a "Request for wage and Supplement Information" form (PW 39) to the Bureau of Public Work. The Prevailing Rate Schedule MUST be included in the specifications for the contract to be awarded and is deemed part of the public work contract.

Upon the awarding of the contract, the law requires that the Department of Jurisdiction (Contracting Agency) furnish the following information to the Bureau: the name and address of the contractor, the date the contract was let and the approximate dollar value of the contract. To facilitate compliance with this provision of the Labor Law, a copy of the Department's "Notice of Contract Award" form (PW 16) is provided with the original Prevailing Rate Schedule.

The Department of Jurisdiction (Contracting Agency) is required to notify the Bureau of the completion or cancellation of any public work project. The Department's PW 200 form is provided for that purpose.

Both the PW 16 and PW 200 forms are available for completion online.

Hours

No laborer, worker, or mechanic in the employ of a contractor or subcontractor engaged in the performance of any public work project shall be permitted to work more than eight hours in any day or more than five days in any week, except in cases of extraordinary emergency. The contractor and the Department of Jurisdiction (Contracting Agency) may apply to the Bureau of Public Work for a dispensation permitting workers to work additional hours or days per week on a particular public work project.

There are very few exceptions to this rule. Complete information regarding these exceptions is available on the "Request for a dispensation to work overtime" form (PW30) and "4 Day / 10 Hour Work Schedule" form (PW 30.1).

Wages and Supplements

The wages and supplements to be paid and/or provided to laborers, workers, and mechanics employed on a public work project shall be not less than those listed in the current Prevailing Rate Schedule for the locality where the work is performed. If a prime contractor on a public work project has not been provided with a Prevailing Rate Schedule, the contractor must notify the Department of Jurisdiction (Contracting Agency) who in turn must request an original Prevailing Rate Schedule form the Bureau of Public Work. Requests may be submitted by: mail to NYSDOL, Bureau of Public Work, State Office Bldg. Campus, Bldg. 12, Rm. 130, Albany, NY 12240; Fax to Bureau of Public Work (518) 485-1870; or electronically at the NYSDOL website www.labor.ny.gov.

Upon receiving the original schedule, the Department of Jurisdiction (Contracting Agency) is REQUIRED to provide complete copies to all prime contractors who in turn MUST, by law, provide copies of all applicable county schedules to each subcontractor and obtain from each subcontractor, an affidavit certifying such schedules were received. If the original schedule expired, the contractor may obtain a copy of the new annual determination from the NYSDOL website www.labor.ny.gov.

The Commissioner of Labor makes an annual determination of the prevailing rates. This determination is in effect from July 1st through June 30th of the following year. The annual determination is available online at the NYSDOL website www.labor.ny.gov.

Payrolls and Payroll Records

Every contractor and subcontractor MUST keep original payrolls or transcripts subscribed and affirmed as true under penalty of perjury. As per Article 6 of the Labor law, contractors and subcontractors are required to establish, maintain, and preserve for not less than six (6) years, contemporaneous, true, and accurate payroll records. At a minimum, payrolls must show the following information for each person employed on a public work project: Name, Address, Last 4 Digits of Social Security Number, Classification(s) in which the worker was employed, Hourly wage rate(s) paid, Supplements paid...
or provided, and Daily and weekly number of hours worked in each classification.

The filing of payrolls to the Department of Jurisdiction is a condition of payment. Every contractor and subcontractor shall submit to the Department of Jurisdiction (Contracting Agency), within thirty (30) days after issuance of its first payroll and every thirty (30) days thereafter, a transcript of the original payrolls, subscribed and affirmed as true under penalty of perjury. The Department of Jurisdiction (Contracting Agency) shall collect, review for facial validity, and maintain such payrolls.

In addition, the Commissioner of Labor may require contractors to furnish, with ten (10) days of a request, payroll records sworn to as their validity and accuracy for public work and private work. Payroll records include, but are not limited to time cards, work description sheets, proof that supplements were provided, cancelled payroll checks and payrolls. Failure to provide the requested information within the allotted ten (10) days will result in the withholding of up to 25% of the contract, not to exceed $100,000.00. If the contractor or subcontractor does not maintain a place of business in New York State and the amount of the contract exceeds $25,000.00, payroll records and certifications must be kept on the project worksite.

The prime contractor is responsible for any underpayments of prevailing wages or supplements by any subcontractor.

All contractors or their subcontractors shall provide to their subcontractors a copy of the Prevailing Rate Schedule specified in the public work contract as well as any subsequently issued schedules. A failure to provide these schedules by a contractor or subcontractor is a violation of Article 8, Section 220-a of the Labor Law.

All subcontractors engaged by a public work project contractor or its subcontractor, upon receipt of the original schedule and any subsequently issued schedules, shall provide to such contractor a verified statement attesting that the subcontractor has received the Prevailing Rate Schedule and will pay or provide the applicable rates of wages and supplements specified therein. (See NYS Labor Laws, Article 8, Section 220-a).

Determination of Prevailing Wage and Supplement Rate Updates Applicable to All Counties

The wages and supplements contained in the annual determination become effective July 1st whether or not the new determination has been received by a given contractor. Care should be taken to review the rates for obvious errors. Any corrections should be brought to the Department's attention immediately. It is the responsibility of the public work contractor to use the proper rates. If there is a question on the proper classification to be used, please call the district office located nearest the project. Any errors in the annual determination will be corrected and posted to the NYSDOL website on the first business day of each month. Contractors are responsible for paying these updated rates as well, retroactive to July 1st.

When you review the schedule for a particular occupation, your attention should be directed to the dates above the column of rates. These are the dates for which a given set of rates is effective. To the extent possible, the Department posts rates in its possession that cover periods of time beyond the July 1st to June 30th time frame covered by a particular annual determination. Rates that extend beyond that instant time period are informational ONLY and may be updated in future annual determinations that actually cover the then appropriate July 1st to June 30th time period.

Withholding of Payments

When a complaint is filed with the Commissioner of Labor alleging the failure of a contractor or subcontractor to pay or provide the prevailing wages or supplements, or when the Commissioner of Labor believes that unpaid wages or supplements may be due, payments on the public work contract shall be withheld from the prime contractor in a sufficient amount to satisfy the alleged unpaid wages and supplements, including interest and civil penalty, pending a final determination.

When the Bureau of Public Work finds that a contractor or subcontractor on a public work project failed to pay or provide the requisite prevailing wages or supplements, the Bureau is authorized by Sections 220-b and 235.2 of the Labor Law to so notify the financial officer of the Department of Jurisdiction (Contracting Agency) that awarded the public work contract. Such officer MUST then withhold or cause to be withheld from any payment due the prime contractor on account of such contract the amount indicated by the Bureau as sufficient to satisfy the unpaid wages and supplements, including interest and any civil penalty that may be assessed by the Commissioner of Labor. The withholding continues until there is a final determination of the underpayment by the Commissioner of Labor or by the court in the event a legal proceeding is instituted for review of the determination of the Commissioner of Labor.

The Department of Jurisdiction (Contracting Agency) shall comply with this order of the Commissioner of Labor or of the court with respect to the release of the funds so withheld.

Summary of Notice Posting Requirements

The current Prevailing Rate Schedule must be posted in a prominent and accessible place on the site of the public work project. The prevailing wage schedule must be encased in, or constructed of, materials capable of withstanding adverse weather conditions and be titled "PREVAILING RATE OF WAGES" in letters no smaller than two (2) inches by two (2) inches.
The "Public Work Project" notice must be posted at the beginning of the performance of every public work contract, on each job site.

Every employer providing workers’ compensation insurance and disability benefits must post notices of such coverage in the format prescribed by the Workers’ Compensation Board in a conspicuous place on the jobsite.

Every employer subject to the NYS Human Rights Law must conspicuously post at its offices, places of employment, or employment training centers, notices furnished by the State Division of Human Rights.

Employers liable for contributions under the Unemployment Insurance Law must conspicuously post on the jobsite notices furnished by the NYS Department of Labor.

Apprentices

Employees cannot be paid apprentice rates unless they are individually registered in a program registered with the NYS Commissioner of Labor. The allowable ratio of apprentices to journeyworkers in any craft classification can be no greater than the statewide building trade ratios promulgated by the Department of Labor and included with the Prevailing Rate Schedule. An employee listed on a payroll as an apprentice who is not registered as above or is performing work outside the classification of work for which the apprentice is indentured, must be paid the prevailing journeyworker’s wage rate for the classification of work the employee is actually performing.

NYSDOL Labor Law, Article 8, Section 220-3, require that only apprentices individually registered with the NYS Department of Labor may be paid apprenticeship rates on a public work project. No other Federal or State Agency of office registers apprentices in New York State.

Persons wishing to verify the apprentice registration of any person must do so in writing by mail, to the NYSDOL Office of Employability Development / Apprenticeship Training, State Office Bldg. Campus, Bldg. 12, Albany, NY 12240 or by Fax to NYSDOL Apprenticeship Training (518) 457-7154. All requests for verification must include the name and social security number of the person for whom the information is requested.

The only conclusive proof of individual apprentice registration is written verification from the NYSDOL Apprenticeship Training Albany Central office. Neither Federal nor State Apprenticeship Training offices outside of Albany can provide conclusive registration information.

It should be noted that the existence of a registered apprenticeship program is not conclusive proof that any person is registered in that program. Furthermore, the existence or possession of wallet cards, identification cards, or copies of state forms is not conclusive proof of the registration of any person as an apprentice.

Interest and Penalties

In the event that an underpayment of wages and/or supplements is found:

- Interest shall be assessed at the rate then in effect as prescribed by the Superintendent of Banks pursuant to section 14-a of the Banking Law, per annum from the date of underpayment to the date restitution is made.
- A Civil Penalty may also be assessed, not to exceed 25% of the total of wages, supplements, and interest due.

Debarment

Any contractor or subcontractor and/or its successor shall be ineligible to submit a bid on or be awarded any public work contract or subcontract with any state, municipal corporation or public body for a period of five (5) years when:

- Two (2) willful determinations have been rendered against that contractor or subcontractor and/or its successor within any consecutive six (6) year period.
- There is any willful determination that involves the falsification of payroll records or the kickback of wages or supplements.

Criminal Sanctions

Willful violations of the Prevailing Wage Law (Article 8 of the Labor Law) may be a felony punishable by fine or imprisonment of up to 15 years, or both.

Discrimination

No employee or applicant for employment may be discriminated against on account of age, race, creed, color, national origin, sex, disability or marital status.

No contractor, subcontractor nor any person acting on its behalf, shall by reason of race, creed, color, disability, sex or national origin discriminate against any citizen of the State of New York who is qualified and available to perform the work to which the employment relates (NYS Labor Law, Article 8, Section 220-e(a)).
No contractor, subcontractor, nor any person acting on its behalf, shall in any manner, discriminate against or intimidate any employee on account of race, creed, color, disability, sex, or national origin (NYS Labor Law, Article 8, Section 220-e(b) ).

The Human Rights Law also prohibits discrimination in employment because of age, marital status, or religion.

There may be deducted from the amount payable to the contractor under the contract a penalty of $50.00 for each calendar day during which such person was discriminated against or intimidated in violation of the provision of the contract (NYS Labor Law, Article 8, Section 220-e(c) ).

The contract may be cancelled or terminated by the State or municipality. All monies due or to become due thereunder may be forfeited for a second or any subsequent violation of the terms or conditions of the anti-discrimination sections of the contract (NYS Labor Law, Article 8, Section 220-e(d) ).

Every employer subject to the New York State Human Rights Law must conspicuously post at its offices, places of employment, or employment training centers notices furnished by the State Division of Human Rights.

**Workers’ Compensation**

In accordance with Section 142 of the State Finance Law, the contractor shall maintain coverage during the life of the contract for the benefit of such employees as required by the provisions of the New York State Workers’ Compensation Law.

A contractor who is awarded a public work contract must provide proof of workers’ compensation coverage prior to being allowed to begin work.

The insurance policy must be issued by a company authorized to provide workers’ compensation coverage in New York State. Proof of coverage must be on form C-105.2 (Certificate of Workers’ Compensation Insurance) and must name this agency as a certificate holder.

If New York State coverage is added to an existing out-of-state policy, it can only be added to a policy from a company authorized to write workers’ compensation coverage in this state. The coverage must be listed under item 3A of the information page.

The contractor must maintain proof that subcontractors doing work covered under this contract secured and maintained a workers’ compensation policy for all employees working in New York State.

Every employer providing worker’s compensation insurance and disability benefits must post notices of such coverage in the format prescribed by the Workers’ Compensation Board in a conspicuous place on the jobsite.

**Unemployment Insurance**

Employers liable for contributions under the Unemployment Insurance Law must conspicuously post on the jobsite notices furnished by the New York State Department of Labor.
Notice of Contract Award

New York State Labor Law, Article 8, Section 220.3a requires that certain information regarding the awarding of public work contracts, be furnished to the Commissioner of Labor. One "Notice of Contract Award" (PW 16, which may be photocopied), MUST be completed for EACH prime contractor on the above referenced project.

Upon notifying the successful bidder(s) of this contract, enter the required information and mail OR fax this form to the office shown at the bottom of this notice, OR fill out the electronic version via the NYSDOL website.

Contractor Information
All information must be supplied

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<th>Federal Employer Identification Number:</th>
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<th>Contractor Type:</th>
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<tbody>
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<tr>
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<td>[ ] (02) Heating/Ventilation</td>
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<tr>
<td>City:</td>
<td></td>
<td>[ ] (03) Electrical</td>
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<tr>
<td>State:</td>
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<td>Zip:</td>
<td></td>
<td>[ ] (05) Other:</td>
</tr>
<tr>
<td>Amount of Contract:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Approximate Starting Date: __/__/____

Approximate Completion Date: __/__/____
Social Security Numbers on Certified Payrolls:

The Department of Labor is cognizant of the concerns of the potential for misuse or inadvertent disclosure of social security numbers. Identity theft is a growing problem and we are sympathetic to contractors’ concern regarding inclusion of this information on payrolls if another identifier will suffice.

For these reasons, the substitution of the use of the last four digits of the social security number on certified payrolls submitted to contracting agencies on public work projects is now acceptable to the Department of Labor. This change does not affect the Department's ability to request and receive the entire social security number from employers during its public work/prevailing wage investigations.

Construction Industry Fair Play Act: Required Posting for Labor Law Article 25-B § 861-d

Construction industry employers must post the "Construction Industry Fair Play Act" notice in a prominent and accessible place on the job site. Failure to post the notice can result in penalties of up to $1,500 for a first offense and up to $5,000 for a second offense. The posting is included as part of this wage schedule. Additional copies may be obtained from the NYS DOL website, www.labor.ny.gov. https://labor.ny.gov/formsdocs/ui/IA999.pdf

If you have any questions concerning the Fair Play Act, please call the State Labor Department toll-free at 1-866-435-1499 or email us at: dol.misclassified@labor.ny.gov.

Worker Notification: (Labor Law §220, paragraph a of subdivision 3-a)

Effective June 23, 2020

This provision is an addition to the existing wage rate law, Labor Law §220, paragraph a of subdivision 3-a. It requires contractors and subcontractors to provide written notice to all laborers, workers or mechanics of the prevailing wage and supplement rate for their particular job classification on each pay stub*. It also requires contractors and subcontractors to post a notice at the beginning of the performance of every public work contract on each job site that includes the telephone number and address for the Department of Labor and a statement informing laborers, workers or mechanics of their right to contact the Department of Labor if he/she is not receiving the proper prevailing rate of wages and/or supplements for his/her job classification. The required notification will be provided with each wage schedule, may be downloaded from our website www.labor.ny.gov or be made available upon request by contacting the Bureau of Public Work at 518-457-5589. *In the event the required information will not fit on the pay stub, an accompanying sheet or attachment of the information will suffice.

(12.20)
To all State Departments, Agency Heads and Public Benefit Corporations
IMPORTANT NOTICE REGARDING PUBLIC WORK ENFORCEMENT FUND

Budget Policy & Reporting Manual

B-610

Public Work Enforcement Fund

effective date December 7, 2005

1. Purpose and Scope:

This Item describes the Public Work Enforcement Fund (the Fund, PWEF) and its relevance to State agencies and public benefit corporations engaged in construction or reconstruction contracts, maintenance and repair, and announces the recently-enacted increase to the percentage of the dollar value of such contracts that must be deposited into the Fund. This item also describes the roles of the following entities with respect to the Fund:

- New York State Department of Labor (DOL),
- The Office of the State of Comptroller (OSC), and
- State agencies and public benefit corporations.

2. Background and Statutory References:

DOL uses the Fund to enforce the State's Labor Law as it relates to contracts for construction or reconstruction, maintenance and repair, as defined in subdivision two of Section 220 of the Labor Law. State agencies and public benefit corporations participating in such contracts are required to make payments to the Fund.


3. Procedures and Agency Responsibilities:

The Fund is supported by transfers and deposits based on the value of contracts for construction and reconstruction, maintenance and repair, as defined in subdivision two of Section 220 of the Labor Law, into which all State agencies and public benefit corporations enter.

Chapter 407 of the Laws of 2005 increased the amount required to be provided to this fund to .10 of one-percent of the total cost of each such contract, to be calculated at the time agencies or public benefit corporations enter into a new contract or if a contract is amended. The provisions of this bill became effective August 2, 2005.
OSC will report to DOL on all construction-related ("D") contracts approved during the
month, including contract amendments, and then DOL will bill agencies the appropriate
assessment monthly. An agency may then make a determination if any of the billed
contracts are exempt and so note on the bill submitted back to DOL. For any instance
where an agency is unsure if a contract is or is not exempt, they can call the Bureau of
Public Work at the number noted below for a determination. Payment by check or journal
voucher is due to DOL within thirty days from the date of the billing. DOL will verify the
amounts and forward them to OSC for processing.

For those contracts which are not approved or administered by the Comptroller, monthly
reports and payments for deposit into the Public Work Enforcement Fund must be provided
to the Administrative Finance Bureau at the DOL within 30 days of the end of each month
or on a payment schedule mutually agreed upon with DOL.

Reports should contain the following information:

- Name and billing address of State agency or public
  benefit corporation;
- State agency or public benefit corporation contact and
  phone number;
- Name and address of contractor receiving the award;
- Contract number and effective dates;
- Contract amount and PWEF assessment charge (if
  contract amount has been amended, reflect increase or
decline to original contract and the adjustment in the
  PWEF charge); and
- Brief description of the work to be performed under each
  contract.

Checks and Journal Vouchers, payable to the "New York State Department of Labor"
should be sent to:

Department of Labor
Administrative Finance Bureau-PWEF Unit
Building 12, Room 464
State Office Campus
Albany, NY 12240

Any questions regarding billing should be directed to NYSDOL's Administrative Finance
Bureau-PWEF Unit at (518) 457-3624 and any questions regarding Public Work Contracts
should be directed to the Bureau of Public Work at (518) 457-5589.
Attention All Employees, Contractors and Subcontractors: 
You are Covered by the Construction Industry Fair Play Act

The law says that you are an employee unless:
• You are free from direction and control in performing your job, and
• You perform work that is not part of the usual work done by the business that hired you, and
• You have an independently established business.

Your employer cannot consider you to be an independent contractor unless all three of these facts apply to your work.

It is against the law for an employer to misclassify employees as independent contractors or pay employees off the books.

Employee Rights: If you are an employee, you are entitled to state and federal worker protections. These include:
• Unemployment Insurance benefits, if you are unemployed through no fault of your own, able to work, and otherwise qualified,
• Workers’ compensation benefits for on-the-job injuries,
• Payment for wages earned, minimum wage, and overtime (under certain conditions),
• Prevailing wages on public work projects,
• The provisions of the National Labor Relations Act, and
• A safe work environment.

It is a violation of this law for employers to retaliate against anyone who asserts their rights under the law. Retaliation subjects an employer to civil penalties, a private lawsuit or both.

Independent Contractors: If you are an independent contractor, you must pay all taxes and Unemployment Insurance contributions required by New York State and Federal Law.

Penalties for paying workers off the books or improperly treating employees as independent contractors:

• Civil Penalty
  First offense: Up to $2,500 per employee
  Subsequent offense(s): Up to $5,000 per employee

• Criminal Penalty
  First offense: Misdemeanor - up to 30 days in jail, up to a $25,000 fine and debarment from performing public work for up to one year.
  Subsequent offense(s): Misdemeanor - up to 60 days in jail or up to a $50,000 fine and debarment from performing public work for up to 5 years.

If you have questions about your employment status or believe that your employer may have violated your rights and you want to file a complaint, call the Department of Labor at (866) 435-1499 or send an email to dol.misclassified@labor.ny.gov. All complaints of fraud and violations are taken seriously. You can remain anonymous.

Employer Name:
IA 999 (09/16)
New York State Department of Labor
Bureau of Public Work

Attention Employees

THIS IS A:

PUBLIC WORK PROJECT

If you are employed on this project as a worker, laborer, or mechanic you are entitled to receive the prevailing wage and supplements rate for the classification at which you are working.

Chapter 629 of the Labor Laws of 2007:

These wages are set by law and must be posted at the work site. They can also be found at:

www.labor.ny.gov

If you feel that you have not received proper wages or benefits, please call our nearest office.*

Albany (518) 457-2744 Patchogue (631) 687-4882
Binghamton (607) 721-8005 Rochester (585) 258-4505
Buffalo (716) 847-7159 Syracuse (315) 428-4056
Garden City (516) 228-3915 Utica (315) 793-2314
New York City (212) 932-2419 White Plains (914) 997-9507
Newburgh (845) 568-5156

* For New York City government agency construction projects, please contact the Office of the NYC Comptroller at (212) 669-4443, or www.comptroller.nyc.gov – click on Bureau of Labor Law.

Contractor Name:

Project Location:

PW 101 (4.15)
Requirements for OSHA 10 Compliance

Article 8 §220-h requires that when the advertised specifications, for every contract for public work, is $250,000.00 or more the contract must contain a provision requiring that every worker employed in the performance of a public work contract shall be certified as having completed an OSHA 10 safety training course. The clear intent of this provision is to require that all employees of public work contractors, required to be paid prevailing rates, receive such training “prior to the performing any work on the project.”

The Bureau will enforce the statute as follows:

All contractors and sub contractors must attach a copy of proof of completion of the OSHA 10 course to the first certified payroll submitted to the contracting agency and on each succeeding payroll where any new or additional employee is first listed.

Proof of completion may include but is not limited to:

- Copies of bona fide course completion card (Note: Completion cards do not have an expiration date.)
- Training roster, attendance record of other documentation from the certified trainer pending the issuance of the card.
- Other valid proof

**A certification by the employer attesting that all employees have completed such a course is not sufficient proof that the course has been completed.**

Any questions regarding this statute may be directed to the New York State Department of Labor, Bureau of Public Work at 518-457-5589.

WICKS

Public work projects are subject to the Wicks Law requiring separate specifications and bidding for the plumbing, heating and electrical work, when the total project's threshold is $3 million in Bronx, Kings, New York, Queens and, Richmond counties; $1.5 million in Nassau, Suffolk and Westchester counties; and $500,000 in all other counties.

For projects below the monetary threshold, bidders must submit a sealed list naming each subcontractor for the plumbing, HVAC and electrical and the amount to be paid to each. The list may not be changed unless the public owner finds a legitimate construction need, including a change in specifications or costs or the use of a Project Labor Agreement (PLA), and must be open to public inspection.

Allows the state and local agencies and authorities to waive the Wicks Law and use a PLA if it will provide the best work at the lowest possible price. If a PLA is used, all contractors shall participate in apprentice training programs in the trades of work it employs that have been approved by the Department of Labor (DOL) for not less than three years. They shall also have at least one graduate in the last three years and use affirmative efforts to retain minority apprentices. PLA's would be exempt from Wicks, but deemed to be public work subject to prevailing wage enforcement.

The Commissioner of Labor shall have the power to enforce separate specification requirements on projects, and may issue stop-bid orders against public owners for non-compliance.

Other new monetary thresholds, and similar sealed bidding for non-Wicks projects, would apply to certain public authorities including municipal housing authorities, NYC Construction Fund, Yonkers Educational Construction Fund, NYC Municipal Water Finance Authority, Buffalo Municipal Water Finance Authority, Westchester County Health Care Association, Nassau County Health Care Corp., Clifton-Fine Health Care Corp., Erie County Medical Center Corp., NYC Solid Waste Management Facilities, and the Dormitory Authority.

Contractors must pay subcontractors within a 7 days period.

(07.19)
Introduction to the Prevailing Rate Schedule

Information About Prevailing Rate Schedule

This information is provided to assist you in the interpretation of particular requirements for each classification of worker contained in the attached Schedule of Prevailing Rates.

Classification

It is the duty of the Commissioner of Labor to make the proper classification of workers taking into account whether the work is heavy and highway, buildings, sewer and water, tunnel work, or residential, and to make a determination of wages and supplements to be paid or provided. It is the responsibility of the public work contractor to use the proper rate. If there is a question on the proper classification to be used, please call the district office located nearest the project. District office locations and phone numbers are listed below.

Prevailing Wage Schedules are issued separately for "General Construction Projects" and "Residential Construction Projects" on a county-by-county basis.

General Construction Rates apply to projects such as: Buildings, Heavy & Highway, and Tunnel and Water & Sewer rates.

Residential Construction Rates generally apply to construction, reconstruction, repair, alteration, or demolition of one family, two family, row housing, or rental type units intended for residential use.

Some rates listed in the Residential Construction Rate Schedule have a very limited applicability listed along with the rate. Rates for occupations or locations not shown on the residential schedule must be obtained from the General Construction Rate Schedule. Please contact the local Bureau of Public Work office before using Residential Rate Schedules, to ensure that the project meets the required criteria.

Payrolls and Payroll Records

Contractors and subcontractors are required to establish, maintain, and preserve for not less that six (6) years, contemporaneous, true, and accurate payroll records.

Every contractor and subcontractor shall submit to the Department of Jurisdiction (Contracting Agency), within thirty (30) days after issuance of its first payroll and every thirty (30) days thereafter, a transcript of the original payrolls, subscribed and affirmed as true under penalty of perjury.

Paid Holidays

Paid Holidays are days for which an eligible employee receives a regular day's pay, but is not required to perform work. If an employee works on a day listed as a paid holiday, this remuneration is in addition to payment of the required prevailing rate for the work actually performed.

Overtime

At a minimum, all work performed on a public work project in excess of eight hours in any one day or more than five days in any workweek is overtime. However, the specific overtime requirements for each trade or occupation on a public work project may differ. Specific overtime requirements for each trade or occupation are contained in the prevailing rate schedules.

Overtime holiday pay is the premium pay that is required for work performed on specified holidays. It is only required where the employee actually performs work on such holidays.

The applicable holidays are listed under HOLIDAYS: OVERTIME. The required rate of pay for these covered holidays can be found in the OVERTIME PAY section listings for each classification.

Supplemental Benefits

Particular attention should be given to the supplemental benefit requirements. Although in most cases the payment or provision of supplements is straight time for all hours worked, some classifications require the payment or provision of supplements, or a portion of the supplements, to be paid or provided at a premium rate for premium hours worked. Supplements may also be required to be paid or provided on paid holidays, regardless of whether the day is worked. The Overtime Codes and Notes listed on the particular wage classification will indicate these conditions as required.

Effective Dates

When you review the schedule for a particular occupation, your attention should be directed to the dates above the column of rates. These are the dates for which a given set of rates is effective. The rate listed is valid until the next effective rate change or until the new annual determination which takes effect on July 1 of each year. All contractors and subcontractors are required to pay the current prevailing rates of wages and supplements. If you have any questions please contact the Bureau of Public Work or visit the New York State Department of Labor website (www.labor.ny.gov) for current wage rate information.

Apprentice Training Ratios

The following are the allowable ratios of registered Apprentices to Journey-workers.

For example, the ratio 1:1,1:3 indicates the allowable initial ratio is one Apprentice to one Journeyworker. The Journeyworker must be in place on the project before an Apprentice is allowed. Then three additional Journeyworkers are needed before a second Apprentice is allowed. The last ratio repeats indefinitely. Therefore, three more Journeyworkers must be present before a third Apprentice can be hired, and so on.

Please call Apprentice Training Central Office at (518) 457-6820 if you have any questions.
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<thead>
<tr>
<th>Title (Trade)</th>
<th>Ratio</th>
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<tbody>
<tr>
<td>Boilermaker (Construction)</td>
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<tr>
<td>Boilermaker (Shop)</td>
<td>1:1:1:3</td>
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<tr>
<td>Carpenter (Bldg., H&amp;H, Pile Driver/Dockbuilder)</td>
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<tr>
<td>Carpenter (Residential)</td>
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<td>Electrical (Outside) Lineman</td>
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<tr>
<td>Sprinkler Fitter</td>
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</tbody>
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If you have any questions concerning the attached schedule or would like additional information, please contact the nearest BUREAU of PUBLIC WORK District Office or write to:

New York State Department of Labor
Bureau of Public Work
State Office Campus, Bldg. 12
Albany, NY 12240

District Office Locations:  Telephone #   FAX #
Bureau of Public Work - Buffalo    716-847-7159 716-847-7650
Bureau of Public Work - Garden City 516-228-3915 516-794-3518
Bureau of Public Work - Newburgh    845-568-5287 845-568-5332
Bureau of Public Work - New York City 212-932-2419 212-775-3579
Bureau of Public Work - Patchogue    631-687-4882 631-687-4902
Bureau of Public Work - Rochester    585-258-4505 585-258-4708
Bureau of Public Work - Syracuse 315-428-4056 315-428-4671
Bureau of Public Work - Utica         315-793-2314 315-793-2514
Bureau of Public Work - White Plains 914-997-9507 914-997-9523
Bureau of Public Work - Central Office 518-457-5589 518-485-1870
Niagara County General Construction

Boilermaker 12/01/2021

JOB DESCRIPTION  Boilermaker

ENTIRE COUNTIES
Allegany, Cattaraugus, Chautauqua, Chemung, Erie, Genesee, Livingston, Monroe, Niagara, Ontario, Orleans, Schuyler, Steuben, Wayne, Wyoming, Yates

WAGES
Per hours: 07/01/2021

Boilermaker $ 35.10

The wage rate will be 90% of the above for Maintenance work on boilers less than 100,000 pph.

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day.

NOTE - In order to use the '4 Day/10 Hour Work schedule', as your normal schedule, you must submit an 'Employer Registration for Use of 4 Day/10 Hour Work Schedule,' form PW30.1; and there must be a dispensation of hours in place on the project. If the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.

SUPPLEMENTAL BENEFITS
Per hour: $ 31.04*

*NOTE: $29.85 of this amount is for every Hour "Paid"

OVERTIME PAY
See (B, E, Q) on OVERTIME PAGE

HOLIDAY
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES
1st Term at 12 Months
Terms 3-8 at 6 Months
Per Hour:
1st 65%
3rd 70%  4th 75%  5th 80%  6th 85%  7th 90%  8th 95%

Supplemental Benefits per hour:
All Terms $ 31.04**

**NOTE: $29.85 of this amount is for every Hour "Paid"

Carpenter - Building 12/01/2021

JOB DESCRIPTION  Carpenter - Building

ENTIRE COUNTIES
Genesee, Niagara, Orleans

PARTIAL COUNTIES
Wyoming: Only the Townships of Arcade, Attica, Bennington, Covington, Eagle, Java, Middlebury, Orangeville, Sheldon and Wethersfield.

WAGES
Per hour: 07/01/2021

Carpenter $ 32.58
Floorlayer 32.58
Certified Welder 33.58
Hazardous Waste Worker 34.58
Diver-Dry Day 33.58
Diver Tender 33.58
Diver-Wet Day** 61.25

Hazardous Waste Worker: Hazardous sites requiring personal protective equipment.

** Diver rate applies to all hours worked on the day of dive.

Depth pay for diver 0' to 80' no additional fee
81' to 100' additional $0.50 per foot
101' to 150' additional $0.75 per foot
151' and deeper additional $1.25 per foot

Penetration pay:
0' to 50' no additional fee
51' to 100' additional $0.75 per foot
101' and deeper additional $1.00 per foot

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day.

NOTE - In order to use the '4 Day/10 Hour Work schedule', as your normal schedule, you must submit an 'Employer Registration for Use of 4 Day/10 Hour Work Schedule,' form PW30.1; and there must be a dispensation of hours in place on the project. If the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.

SUPPLEMENTAL BENEFITS
Per hour worked:

Carpenter(s) $26.37
Diver Wet 26.37
Diver Dry & Tender 26.37

OVERTIME PAY
See (B, E, E2, Q) on OVERTIME PAGE

HOLIDAY
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES
Wages per hour:
One year terms at the following percentage of Journeyman's wage:

Floorlayer Apprentices:
1st 2nd 3rd 4th
55% 60% 70% 80%

Carpenter Apprentices:
1st 2nd 3rd 4th 5th
55% 60% 65% 70% 80%

Supplemental Benefits All per hour worked:

1st 2nd 3rd 4th 5th
$12.36 $12.37 $15.05 $15.06 $15.09

12-276B-Gen

Carpenter - Building / Heavy&Highway

JOB DESCRIPTION Carpenter - Building / Heavy&Highway

ENTIRE COUNTIES

PARTIAL COUNTIES
Orange: The area lying on Northern side of Orange County demarcated by a line drawn from the Bear Mountain Bridge continuing west to the Bear Mountain Circle, continue North on 9W to the town of Cornwall where County Road 107 (also known as Quaker Rd) crosses under 9W, then east on County Road 107 to Route 32, then north on Route 32 to Orrs Mills Rd, then west on Orrs Mills Rd to Route 94, continue west and south on Route 94 to the Town of Chester, to the intersection of Kings Highway, continue south on Kings Highway to Bellvale Rd, west on Bellvale Rd to Bellvale Lakes Rd, then south on Bellvale Lakes Rd to Kain Rd, southeast on Kain Rd to Route 17A, then north and southeast along Route 17A to Route 210, then follow Route 210 to NJ Border.

WAGES
Wages per hour: 07/01/2021

Carpenter - ONLY for Artificial Turf/Synthetic Sport Surface $32.08

Note - Does not include the operation of equipment. Please see Operating Engineers rates.

SUPPLEMENTAL BENEFITS
Per hour:
Journeyman $ 24.20

OVERTIME PAY
See (B, E, Q, X) on OVERTIME PAGE

HOLIDAY
Paid: See (5) on HOLIDAY PAGE
Overtime: See (5, 6, 16) on HOLIDAY PAGE

Notes:
When a holiday falls upon a Saturday, it shall be observed on the preceding Friday. When a holiday falls upon a Sunday, it shall be observed on the following Monday.
An employee taking an unexcused day off the regularly scheduled day before or after a paid Holiday shall not receive Holiday pay.

REGISTERED APPRENTICES
Wages per hour:

One year terms at the following percentage of Journeyman's wage:
1st 2nd 3rd 4th
55% 60% 70% 80%

Supplemental Benefits per hour:
1st year term $ 12.15
2nd year term 12.15
3rd year term 14.80
4th year term 14.80

Carpenter - Heavy&Highway 12/01/2021

JOB DESCRIPTION Carpenter - Heavy&Highway
ENTIRE COUNTIES Genesee, Niagara, Orleans, Wyoming
WAGES Per hour: 07/01/2021
Heavy Highway:
Carpenter $ 36.39
Certified Welder 37.89
Diver-Dry Day 37.39
Diver-Wet Day** 61.39
Diver Tender 37.39
Hazardous Material Worker 38.39
Piledriver 36.39
Effluent & Slurry Diver-Dry Day 56.08
Effluent & Slurry Diver-Wet Day 92.08

Hazardous Waste Worker: Hazardous sites requiring personal protective equipment.

** Diver rate applies to all hours worked on the day of dive.

Depth pay for divers: 0’ to 50’ no additional fee
51’ to 100’ additional $0.50 per foot
101’ to 150’ additional $0.75 per foot
151’ to 200’ additional $1.25 per foot

Penetration pay: 0’ to 50’ no additional fee
51’ to 100’ additional $0.75 per foot
101’ to deeper additional $1.00 per foot

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day.

NOTE - In order to use the '4 Day/10 Hour Work schedule', as your normal schedule, you must submit an 'Employer Registration for Use of 4 Day/10 Hour Work Schedule,' form PW30.1; and there must be a dispensation of hours in place on the project. If the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.

SUPPLEMENTAL BENEFITS
Per hour worked:
Carpenter(s) $ 27.40
Diver Wet 29.89
Diver Dry & Tender 29.89
Pile Driver 29.89

**OVERTIME PAY**
See (B, E, Q) on OVERTIME PAGE

**HOLIDAY**
Paid: See (2, 17) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

**REGISTERED APPRENTICES**
Wages per hour:

One year terms at the following percentage of Journeyman's wage:
Carpenter Apprentices:

<table>
<thead>
<tr>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
<th>5th</th>
</tr>
</thead>
<tbody>
<tr>
<td>55%</td>
<td>60%</td>
<td>65%</td>
<td>70%</td>
<td>80%</td>
</tr>
</tbody>
</table>

Pile Driver Apprentices(1300hour terms at percentage of Pile Driver Rate)

<table>
<thead>
<tr>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
</tr>
</thead>
<tbody>
<tr>
<td>55%</td>
<td>60%</td>
<td>70%</td>
<td>80%</td>
</tr>
</tbody>
</table>

Supplemental benefits (All) per hour worked:

<table>
<thead>
<tr>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
<th>5th</th>
</tr>
</thead>
<tbody>
<tr>
<td>$12.15</td>
<td>$12.15</td>
<td>$14.80</td>
<td>$14.80</td>
<td>$14.80</td>
</tr>
</tbody>
</table>

**12-276HH-Gen**

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**Electrician** 12/01/2021

**JOB DESCRIPTION** Electrician

**DISTRICT** 3

**ENTIRE COUNTIES**
Niagara

**PARTIAL COUNTIES**
Orleans: Only the Townships of Albion, Barre, Carlton, Gaines, Ridgeway, Shelby and Yates.

**WAGES**
Per hour: 07/01/2021

- Electrician* $38.00
- Cable Splicer 41.80**

* Includes teledata work.

** Note - Applies for taped splices and taped terminations on shielded cable 5KV and over; for taped splices and taped terminations on all cable over 15KV; for all lead cable splices and terminations; for manufactured, slip-on and kit type splices and terminations over 15KV.

Work performed over 35' to 50' high - $0.45 shall be added to regular rate.

Work performed over 50' high - $0.90 shall be added to regular rate.

Work performed in tunnels over 25' deep or 75' long - $0.45 shall be added.

Hazardous waste work - supplied air as in OSHA Class A - $4.00 additional.

Hazardous waste work - as in OSHA Class B and C - $2.50 additional.

**SUPPLEMENTAL BENEFITS**
Per hour:

$29.13*

* NOTE - add 3% of the posted straight time or applicable premium wage rate.

**OVERTIME PAY**
See (B, E, Q) on OVERTIME PAGE

Day after Thanksgiving is paid at 1 1/2 the hourly rate if worked.

**HOLIDAY**
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

**REGISTERED APPRENTICES**
Wages per hour:

Hour terms at the following percentage of Journeyman's wage:

<table>
<thead>
<tr>
<th>0 to 1000</th>
<th>to 2000</th>
<th>to 3500</th>
<th>to 5000</th>
<th>to 6500</th>
<th>to 8000</th>
</tr>
</thead>
<tbody>
<tr>
<td>40%</td>
<td>45%</td>
<td>50%</td>
<td>60%</td>
<td>70%</td>
<td>85%</td>
</tr>
</tbody>
</table>

Supplemental benefits per hour worked:

<table>
<thead>
<tr>
<th>0 to 2000</th>
<th>to 3500</th>
<th>to 5000</th>
<th>to 6500</th>
<th>to 8000</th>
</tr>
</thead>
</table>
* NOTE - add 3% of the posted straight time or applicable premium wage rate.  

Elevator Constructor 12/01/2021

JOB DESCRIPTION Elevator Constructor

ENTIRE COUNTIES Allegany, Cattaraugus, Chautauqua, Erie, Genesee, Niagara, Orleans, Wyoming

WAGES
Per hour: 07/01/2021
Elevator Constructor $ 53.16
Helper 37.21

** IMPORTANT NOTICE - EFFECTIVE 04/01/2009 **
Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday or Tuesday thru Friday.

NOTE - In order to use the '4 Day/10 Hour Work schedule', as your normal schedule, you must submit an 'Employer Registration for Use of 4 Day/10 Hour Work Schedule,' form PW30.1; and there must be a dispensation of hours in place on the project. If the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.

SUPPLEMENTAL BENEFITS
Per hour: $ 35.83
Note - add 6% of regular hourly rate for all hours worked.

OVERTIME PAY
See (D, O) on OVERTIME PAGE

HOLIDAY
Paid: See (5, 6, 15, 16) on HOLIDAY PAGE
Overtime: See (5, 6, 15, 16) on HOLIDAY PAGE

REGISTERED APPRENTICES
Wages per hour:

One year (1,700 hour each) terms at the following percentage of Journeyman's wage:

<table>
<thead>
<tr>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
</tr>
</thead>
<tbody>
<tr>
<td>55%</td>
<td>65%</td>
<td>70%</td>
<td>80%</td>
</tr>
</tbody>
</table>

Supplemental benefits per hour: $ 35.83

* Note - 0-6 months of the 1st year term is paid at 50% of Journeyman's wage with no Supplemental benefits.

Note - add 6% of regular hourly rate for all hours worked.

Glazier 12/01/2021

JOB DESCRIPTION Glazier

ENTIRE COUNTIES Allegany, Cattaraugus, Chautauqua, Erie, Genesee, Niagara, Orleans, Wyoming

WAGES
Per hour: 07/01/2021
Glazier $ 27.88
Working off Suspended Scaffold (Swing Stage) 28.88
Maintenance 17.50*

* Note - This rate to be used only for all repair and replacement work such as glass breakage, glass replacement, door repair and board ups.

** IMPORTANT NOTICE **
Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day.

NOTE - In order to use the '4 Day/10 Hour Work schedule', as your normal schedule, you must submit an 'Employer Registration for Use of 4 Day/10 Hour Work Schedule,' form PW30.1; and there must be a dispensation of hours in place on the project. If the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.
SUPPLEMENTAL BENEFITS
Per hour:
Journeymen Glazier $24.19
Maintenance 15.49

OVERTIME PAY
See (B, E2, F, R) on OVERTIME PAGE

HOLIDAY
Paid: See (1) on HOLIDAY PAGE for Glazier and Glazier Apprentices.
Paid: See (5, 6) on HOLIDAY PAGE for Maintenance
Overtime: See (5, 6) on HOLIDAY PAGE.

REGISTERED APPRENTICES
Wages per hour:
Glazier: 1000 hour terms at the following percentage of Journeyman's wage:

<table>
<thead>
<tr>
<th>Term</th>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
<th>5th</th>
<th>6th</th>
<th>7th</th>
<th>8th</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>50%</td>
<td>55%</td>
<td>60%</td>
<td>65%</td>
<td>70%</td>
<td>75%</td>
<td>80%</td>
<td>90%</td>
</tr>
</tbody>
</table>

Supplemental benefits per hour:
1st & 2nd terms $8.00
3rd & 4th terms 8.85
All other terms 10.25

3-660

Insulator - Heat & Frost 12/01/2021

JOB DESCRIPTION  Insulator - Heat & Frost
DISTRICT 3

ENTIRE COUNTIES
Allegany, Cattaraugus, Chautauqua, Erie, Niagara, Wyoming

PARTIAL COUNTIES
Genesee: Only the Townships of Alabama, Alexander, Darien, Oakfield and Pembroke.

WAGES
Per Hour: 07/01/2021
Heat & Frost Insulator $34.15

SUPPLEMENTAL BENEFITS
Per hour:
$26.14

OVERTIME PAY
See (B, *E, **Q) on OVERTIME PAGE
* Note - Double time after 10 hours on Saturday.
** Note - Triple time on Labor Day if WORKED.

HOLIDAY
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES
Wages per hour:
One year terms at the following percentage of Journeyman's wage:

<table>
<thead>
<tr>
<th>Term</th>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>50%</td>
<td>60%</td>
<td>70%</td>
<td>80%</td>
</tr>
</tbody>
</table>

Supplemental Benefits per hour:
1st and 2nd $21.09
All other terms $26.14

Ironworker 12/01/2021

JOB DESCRIPTION  Ironworker
DISTRICT 3

ENTIRE COUNTIES
Niagara
PARTIAL COUNTIES
Erie: Only that portion of the Township of Grand Island north of Whitehaven Road.
Orleans: Only the Townships of Ridgeway, Shelby and Yates.

WAGES
Per hour: 07/01/2021

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structural</td>
<td>$31.00</td>
</tr>
<tr>
<td>Ornamental</td>
<td>31.00</td>
</tr>
<tr>
<td>Reinforcing</td>
<td>31.00</td>
</tr>
<tr>
<td>Rigger &amp; Mach. Mover</td>
<td>31.00</td>
</tr>
<tr>
<td>Pre-Engineered</td>
<td>31.00</td>
</tr>
<tr>
<td>Fence Erector</td>
<td>31.00</td>
</tr>
<tr>
<td>Pre-Cast Erector</td>
<td>31.00</td>
</tr>
<tr>
<td>Welder</td>
<td>31.00</td>
</tr>
<tr>
<td>Window Erector</td>
<td>31.00</td>
</tr>
</tbody>
</table>

When shift work is mandated either in the job specification or by the contracting agency the following premiums apply:
10% for second shift work from 2:00PM - 7:00PM
15% for third shift work from 7:00PM - 12:00AM

When a single irregular shift is worked outside the standard workday with the start times based on second and third shifts, a 10% premium on hours worked applies.

SUPPLEMENTAL BENEFITS
Per hour: $31.78

OVERTIME PAY
See (B, E, Q) on OVERTIME PAGE

HOLIDAY
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES
Wages per hour:

<table>
<thead>
<tr>
<th>Term</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st term</td>
<td>$19.50</td>
</tr>
<tr>
<td>2nd term</td>
<td>21.50</td>
</tr>
<tr>
<td>3rd term</td>
<td>23.50</td>
</tr>
<tr>
<td>4th term</td>
<td>25.50</td>
</tr>
</tbody>
</table>

Supplemental benefits per hour:

<table>
<thead>
<tr>
<th>Term</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st term</td>
<td>$12.28</td>
</tr>
<tr>
<td>2nd term</td>
<td>19.98</td>
</tr>
<tr>
<td>3rd term</td>
<td>21.08</td>
</tr>
<tr>
<td>4th term</td>
<td>22.18</td>
</tr>
</tbody>
</table>

Laborer - Building 12/01/2021

JOB DESCRIPTION Laborer - Building

ENTIRE COUNTIES Niagara

WAGES
GROUP 1: Basic.

GROUP 2: Curb and Flatwork Formsetter not on structures, Gunnite Nozzlemen, Sand Blasters, Burning Torch, Operator of Concrete Saw.

GROUP 3: Potman, Pipelayers, Pavement Breakers, Jackhammer Operators, Barco Rammers, Chain Saw, Powder Monkey, Black Top Rakers, Scalers, Drill Helpers, Mortar Mixers, Men Working from Swing Scaffold, Bosun Chair, or suspended cage or bucket, Work in Caissons below 8 feet, Concrete Motor Buggy, Operators of Mechanical Tools.

GROUP 4: Blasters, Grade Checkers.

GROUP 5: Men Working with asbestos, hazardous waste or toxic material.
GROUP 6: Wagon drill, Air Track, Welder.

GROUP 7: Video Machine.

GROUP 8: Supplied Air Respirators.

GROUP 9: Laser Beam.

Per hour: 07/01/2021

GROUP 1 $ 28.40
GROUP 2 29.00
GROUP 3 28.70
GROUP 4 31.24
GROUP 5 30.40
GROUP 6 29.40
GROUP 7 28.90
GROUP 8 33.40
GROUP 9 29.25

The following premiums apply when shift work is mandated by the job specifications or by the contracting agency:
15% for work from 4:30 p.m. to 12:30 a.m.
20% for work from 12:30 a.m. to 8:00 a.m.
Note: All work from Saturday 8:00am until Monday 8:00am shall be overtime at double time rate when shift work is concerned.

SUPPLEMENTAL BENEFITS
Per hour: $ 40.56

OVERTIME PAY
See (B, E, Q, V) on OVERTIME PAGE

HOLIDAY
Paid: See (5, 6) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES
Wages per hour:

1000 hour terms at the following percentage of basic Journeyman's wage:

1st 2nd 3rd 4th
60% 70% 80% 90%

Supplemental benefits per hour:

$ 40.56

Laborer - Heavy&Highway

JOB DESCRIPTION Laborer - Heavy&Highway

ENTIRE COUNTIES
Niagara

WAGES
Heavy/Highway & Sewer/Water Laborer:

GROUP 1: Basic.

GROUP 2: Blasters, Grade Checkers.

GROUP 3: Curb and Flatwork Formsetter not on structures, Gunnite Nozzlemen, Tree Topper, Sand Blasters, Burning Torch, Operator of Concrete Saw and Utility Pile Driver.

GROUP 4: Potman, Pipelayer, Pavement Breakers or Busters, Jack Hammer Operator, Video Machine, Barco Rammers, Chain Saw, Powder Monkey, Black Top Rakers, Scalers, Drill Helpers, Mortar Mixers, Men Working from Swinging Scaffold, Bosun Chair, Suspended Cage or Bucket, Work in Caissons below 8 ft, Concrete Motor Buggy, All other operators of Mechanical Tools, including Vibrators regardless of type of power and Boat men.
GROUP 5: Chemical Waste Men Working With Hazardous Waste and Toxic materials as defined in Article VI, Section 2C or in areas of radioactive material and asbestos as specified in bidding documents and specifications. The removal of lead.

GROUP 6: Welder, Wagon Drill, Air track Drill, Self Contained Drill.

GROUP 7: Laser Beam.

GROUP 8: Supplied Air Respirators.

GROUP 9: Respirator required for busting.

GROUP 10: Respirator required due to atmospheric conditions (excluding respirators required for hazardous waste, toxic materials, asbestos or lead abatement).

Per hour:

<table>
<thead>
<tr>
<th>GROUP</th>
<th>Per Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$28.40</td>
</tr>
<tr>
<td>2</td>
<td>$31.24</td>
</tr>
<tr>
<td>3</td>
<td>$29.00</td>
</tr>
<tr>
<td>4</td>
<td>$28.70</td>
</tr>
<tr>
<td>5</td>
<td>$30.40</td>
</tr>
<tr>
<td>6</td>
<td>$29.40</td>
</tr>
<tr>
<td>7</td>
<td>$29.25</td>
</tr>
<tr>
<td>8</td>
<td>$33.40</td>
</tr>
<tr>
<td>9</td>
<td>$28.90</td>
</tr>
<tr>
<td>10</td>
<td>$29.40</td>
</tr>
</tbody>
</table>

The following premiums apply when shift work is mandated by the job specifications or by the contracting agency:
15% for work from 4:30 p.m. to 12:30 a.m.
20% for work from 12:30 a.m. to 8:00 a.m.

Note: All work from Saturday 8:00am until Monday 8:00am shall be overtime at double time rate when shift work is concerned.

SUPPLEMENTAL BENEFITS
Per hour:
$40.76

OVERTIME PAY
See (B, E, Q, V) on OVERTIME PAGE

HOLIDAY
Paid: See (5, 6) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES
Wages per hour:

<table>
<thead>
<tr>
<th>Terms</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>60%</td>
</tr>
<tr>
<td>2nd</td>
<td>70%</td>
</tr>
<tr>
<td>3rd</td>
<td>80%</td>
</tr>
<tr>
<td>4th</td>
<td>90%</td>
</tr>
</tbody>
</table>

Supplemental benefits per hour:
$40.76

Laborer - Tunnel 12/01/2021

JOB DESCRIPTION Laborer - Tunnel

ENTIRE COUNTIES Niagara

WAGES COMPRESSED AIR:

GROUP 1: Powder Watchmen, Changehouse Attendant and Top Laborers.

GROUP 2: Blasters, Mucking Machine Operators.
GROUP 3: All Tunnel Workers including Miners, Drill Runners, Iron Men, Maint. Men, Muck Men, Inside Mucklock Tender, Pumpmen, Electricians, Cement Finishers, Rodmen, Caulkers, Carpenters, Hydraulic Men, Shield Drivers, Monorail Operators, Motormen, Conveyor Men, Safety Miners, Powdermen, Pan Men, Riggers, Miner's Helper, Chuck Tenders, Track Men, Nippers, Brakemen, Deraill Men, Cable Men, Hose Men, Grout Men, Gravel Men, Form Workers, Concrete Workers, Tunnel Laborers, and Caulkers Helpers.

GROUP 4: Bottom Bell, Mole Nippers per working shaft per shift up to and including two Moles.

GROUP 5: Top Nipper.

GROUP 6: Top Bell, Signal Men, Shaft Men, Outside Man, Lock Tender, Gauge Tender, Outside Muck Lock Tender.

GROUP 7: Divers.

GROUP 8: Diver Tenders.

Per hour: 07/01/2021

GROUP 1 $ 28.40
GROUP 2 38.34
GROUP 3 36.92
GROUP 4 35.50
GROUP 5 34.08
GROUP 6 32.66
GROUP 7 46.59
GROUP 8 26.59

The following premiums apply when shift work is mandated by the job specifications or by the contracting agency:

15% for work from 4:30 p.m. to 12:30 a.m.
20% for work from 12:30 a.m. to 8:00 a.m.
Note: All work from Saturday 8:00am until Monday 8:00am shall be overtime at double time rate when shift work is concerned.

For degrees of pressure between 26lbs & 30lbs an additional $3.50 per hr.
For degrees of pressure between 31lbs & 35lbs an additional $4.50 per hr.
For degrees of pressure between 36lbs & 40lbs an additional $5.50 per hr.
For degrees of pressure between 41lbs & over an additional $6.50 per hr.

Additional $1.00 per hr. for concrete handling in building of bulkheads for locks also men working in Caissons, Cofferdams and Cylinders under pressure.
Additional $1.00 per hr. for Top Laborer using an air spade, jackhammer or pavement breaker.

SUPPLEMENTAL BENEFITS
Per hour: $ 40.76

OVERTIME PAY
See (B, E, Q, V) on OVERTIME PAGE

HOLIDAY
Paid: See (5, 6) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES
Wages per hour:
1000 hour terms at the following percentage of GROUP 1 Journeyman’s wage:
1st 2nd 3rd 4th
60% 70% 80% 90%

Supplemental benefits per hour: $ 40.76

Laborer - Tunnel 12/01/2021

JOB DESCRIPTION Laborer - Tunnel

ENTIRE COUNTIES
Niagara

WAGES FREE AIR:

GROUP 1: Mole Nipper, Powder Watchmen, Changehouse Attendant and Top Laborers
GROUP 2: Borers Helper, Tunnel Workers, Miners, Drill Runners, Maintenance Men, Conveyor Men, Safety Miner, Block Layers, Rod men, Powder Carriers, Miners Helpers, Chuck Tenders, Track Men, Nippers, Burners, Brake Men, Derrail Men, Cable Men, Hosemen, Grout Men, Gravel Men, Form Men, Bottom Bell, Top Bell, Signal Men, Form Workers, Movers, Concrete Workers, Shaft Man, and Tunnel Laborers.

GROUP 3: Blasters, Welders, Steel Erectors, Piledrivers, Riggers, Cement Finishers and Ironmen.

GROUP 4: Electricians.

GROUP 5: Divers.

GROUP 6: Diver Tender.

Per hour: 07/01/2021

<table>
<thead>
<tr>
<th>GROUP</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>GROUP 1</td>
<td>$28.40</td>
</tr>
<tr>
<td>GROUP 2</td>
<td>32.66</td>
</tr>
<tr>
<td>GROUP 3</td>
<td>34.08</td>
</tr>
<tr>
<td>GROUP 4</td>
<td>35.50</td>
</tr>
<tr>
<td>GROUP 5</td>
<td>46.59</td>
</tr>
<tr>
<td>GROUP 6</td>
<td>26.59</td>
</tr>
</tbody>
</table>

The following premiums apply when shift work is mandated by the job specifications or by the contracting agency:

- 15% for work from 4:30 p.m. to 12:30 a.m.
- 20% for work from 12:30 a.m. to 8:00 a.m.

Note: All work from Saturday 8:00am until Monday 8:00am shall be overtime at double time rate when shift work is concerned.

Additional $1.00 per hr. for Top Laborers using an air spade, jackhammer or pavement breaker.

Additional $ 0.75 per hr. for all employed at tunnel level in pipe jacking operations.

For CAISSON, COFFERDAMS and CYLINDERS: See compressed air tunnel rates.

SUPPLEMENTAL BENEFITS

Per hour: $40.76

OVERTIME PAY

See (B, E, Q, V) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour:

1000 hour terms at the following percentage of GROUP 1 Journeyman’s wage:

<table>
<thead>
<tr>
<th>Term</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>60%</td>
</tr>
<tr>
<td>2nd</td>
<td>70%</td>
</tr>
<tr>
<td>3rd</td>
<td>80%</td>
</tr>
<tr>
<td>4th</td>
<td>90%</td>
</tr>
</tbody>
</table>

Supplemental benefits per hour:

$40.76

Lineman Electrician 12/01/2021

JOB DESCRIPTION | Lineman Electrician

ENTIRE COUNTIES


WAGES

Per hour:

NOTE: Includes Teledata Work within ten (10) feet of High Voltage Transmission Lines

Below rates applicable on all overhead and underground distribution and maintenance work, and all overhead and underground transmission line work and the installation of fiber optic cable where no other construction trades are or have been involved. (Ref #14.01.01)
<table>
<thead>
<tr>
<th></th>
<th>07/01/2021</th>
<th>05/02/2022</th>
<th>05/01/2023</th>
<th>05/06/2024</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lineman, Technician</td>
<td>$54.70</td>
<td>$56.00</td>
<td>$57.40</td>
<td>$58.90</td>
</tr>
<tr>
<td>Crane, Crawler Backhoe</td>
<td>$54.70</td>
<td>$56.00</td>
<td>$57.40</td>
<td>$58.90</td>
</tr>
<tr>
<td>Welder, Cable Splicer</td>
<td>$54.70</td>
<td>$56.00</td>
<td>$57.40</td>
<td>$58.90</td>
</tr>
<tr>
<td>Digging Mach. Operator</td>
<td>$49.23</td>
<td>$50.40</td>
<td>$51.66</td>
<td>$53.01</td>
</tr>
<tr>
<td>Tractor Trailer Driver</td>
<td>$46.50</td>
<td>$47.60</td>
<td>$48.79</td>
<td>$50.07</td>
</tr>
<tr>
<td>Groundman, Truck Driver</td>
<td>$43.76</td>
<td>$44.80</td>
<td>$45.92</td>
<td>$47.12</td>
</tr>
<tr>
<td>Equipment Mechanic</td>
<td>$43.76</td>
<td>$44.80</td>
<td>$45.92</td>
<td>$47.12</td>
</tr>
<tr>
<td>Flagman</td>
<td>$32.82</td>
<td>$33.60</td>
<td>$34.44</td>
<td>$35.34</td>
</tr>
</tbody>
</table>

Additional $1.00 per hour for entire crew when a helicopter is used.

Below rates applicable on all electrical sub-stations, switching structures, fiber optic cable and all other work not defined as "Utility outside electrical work". (Ref #14.02.01-A)

<table>
<thead>
<tr>
<th></th>
<th>07/01/2021</th>
<th>05/02/2022</th>
<th>05/01/2023</th>
<th>05/06/2024</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lineman, Technician</td>
<td>$54.70</td>
<td>$56.00</td>
<td>$57.40</td>
<td>$58.90</td>
</tr>
<tr>
<td>Crane, Crawler Backhoe</td>
<td>$54.70</td>
<td>$56.00</td>
<td>$57.40</td>
<td>$58.90</td>
</tr>
<tr>
<td>Cable Splicer</td>
<td>60.17</td>
<td>61.60</td>
<td>63.14</td>
<td>64.79</td>
</tr>
<tr>
<td>Certified Welder -</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pipe Type Cable</td>
<td>$57.44</td>
<td>$58.80</td>
<td>$60.27</td>
<td>61.85</td>
</tr>
<tr>
<td>Digging Mach. Operator</td>
<td>$49.23</td>
<td>$50.40</td>
<td>$51.66</td>
<td>$53.01</td>
</tr>
<tr>
<td>Tractor Trailer Driver</td>
<td>$46.50</td>
<td>$47.60</td>
<td>$48.79</td>
<td>$50.07</td>
</tr>
<tr>
<td>Groundman, Truck Driver</td>
<td>$43.76</td>
<td>$44.80</td>
<td>$45.92</td>
<td>$47.12</td>
</tr>
<tr>
<td>Equipment Mechanic</td>
<td>$43.76</td>
<td>$44.80</td>
<td>$45.92</td>
<td>$47.12</td>
</tr>
<tr>
<td>Flagman</td>
<td>$32.82</td>
<td>$33.60</td>
<td>$34.44</td>
<td>$35.34</td>
</tr>
</tbody>
</table>

Additional $1.00 per hour for entire crew when a helicopter is used.

Below rates apply on switching structures, maintenance projects, railroad catenary install/maintenance third rail installation, bonding of rails and pipe type cable and installation of fiber optic cable. (Ref #14.02.01-B)

<table>
<thead>
<tr>
<th></th>
<th>07/01/2021</th>
<th>05/02/2022</th>
<th>05/01/2023</th>
<th>05/06/2024</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lineman, Tech, Welder</td>
<td>$56.02</td>
<td>$57.32</td>
<td>$58.72</td>
<td>$60.22</td>
</tr>
<tr>
<td>Crane, Crawler Backhoe</td>
<td>$56.02</td>
<td>$57.32</td>
<td>$58.72</td>
<td>$60.22</td>
</tr>
<tr>
<td>Cable Splicer</td>
<td>61.62</td>
<td>63.05</td>
<td>64.59</td>
<td>66.24</td>
</tr>
<tr>
<td>Certified Welder -</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pipe Type Cable</td>
<td>$58.82</td>
<td>$60.19</td>
<td>$61.66</td>
<td>63.23</td>
</tr>
<tr>
<td>Digging Mach. Operator</td>
<td>$50.42</td>
<td>$51.59</td>
<td>$52.85</td>
<td>$54.20</td>
</tr>
<tr>
<td>Tractor Trailer Driver</td>
<td>$47.62</td>
<td>$48.72</td>
<td>$49.91</td>
<td>$51.19</td>
</tr>
<tr>
<td>Groundman, Truck Driver</td>
<td>$44.82</td>
<td>$45.86</td>
<td>$46.98</td>
<td>$48.18</td>
</tr>
<tr>
<td>Equipment Mechanic</td>
<td>$44.82</td>
<td>$45.86</td>
<td>$46.98</td>
<td>$48.18</td>
</tr>
<tr>
<td>Flagman</td>
<td>$33.61</td>
<td>$34.39</td>
<td>$35.23</td>
<td>$36.13</td>
</tr>
</tbody>
</table>

Additional $1.00 per hour for entire crew when a helicopter is used.

Below rates applicable on all overhead and underground transmission line work & fiber optic cable where other construction trades are or have been involved. This applies to transmission line work only, not other construction. (Ref #14.03.01)

<table>
<thead>
<tr>
<th></th>
<th>07/01/2021</th>
<th>05/02/2022</th>
<th>05/01/2023</th>
<th>05/06/2024</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lineman, Tech, Welder</td>
<td>$57.21</td>
<td>$58.51</td>
<td>$59.91</td>
<td>$61.41</td>
</tr>
<tr>
<td>Crane, Crawler Backhoe</td>
<td>$57.21</td>
<td>$58.51</td>
<td>$59.91</td>
<td>$61.41</td>
</tr>
<tr>
<td>Cable Splicer</td>
<td>57.21</td>
<td>58.51</td>
<td>59.91</td>
<td>61.41</td>
</tr>
<tr>
<td>Digging Mach. Operator</td>
<td>$51.49</td>
<td>$52.66</td>
<td>$53.92</td>
<td>$55.27</td>
</tr>
<tr>
<td>Tractor Trailer Driver</td>
<td>$48.63</td>
<td>$49.73</td>
<td>$50.92</td>
<td>$52.20</td>
</tr>
<tr>
<td>Groundman, Truck Driver</td>
<td>$45.77</td>
<td>$46.81</td>
<td>$47.93</td>
<td>$49.13</td>
</tr>
<tr>
<td>Equipment Mechanic</td>
<td>$45.77</td>
<td>$46.81</td>
<td>$47.93</td>
<td>$49.13</td>
</tr>
<tr>
<td>Flagman</td>
<td>$34.33</td>
<td>$35.11</td>
<td>$35.95</td>
<td>$36.85</td>
</tr>
</tbody>
</table>

Additional $1.00 per hour for entire crew when a helicopter is used.

NOTE: THE FOLLOWING RATES WILL APPLY ON ALL CONTRACTING AGENCY MANDATED MULTIPLE SHIFTS OF AT LEAST FIVE (5) DAYS DURATION WORKED BETWEEN THE HOURS LISTED BELOW:

1ST SHIFT 8:00 AM to 4:30 PM REGULAR RATE
2ND SHIFT 4:30 PM to 1:00 AM REGULAR RATE PLUS 17.3 %
3RD SHIFT 12:30 AM to 9:00 AM REGULAR RATE PLUS 31.4 %
Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day. Tuesday thru Friday may be worked with no make-up day.

NOTE - In order to use the ‘4 Day/10 Hour Work schedule’, as your normal schedule, you must submit an 'Employer Registration for Use of 4 Day/10 Hour Work Schedule,' form PW30.1; and there must be a dispensation of hours in place on the project. If the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.

**SUPPLEMENTAL BENEFITS**

Per hour worked (but also required on non-worked holidays):

<table>
<thead>
<tr>
<th></th>
<th>07/01/2021</th>
<th>05/02/2022</th>
<th>05/01/2023</th>
<th>05/06/2024</th>
</tr>
</thead>
<tbody>
<tr>
<td>$25.40</td>
<td>$25.90</td>
<td>$26.40</td>
<td>$26.90</td>
<td></td>
</tr>
<tr>
<td>*plus 7% of</td>
<td>hourly wage</td>
<td>hourly wage</td>
<td>hourly wage</td>
<td></td>
</tr>
<tr>
<td>Journeyman Lineman or</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>with Crane License</td>
<td>$26.40</td>
<td>$27.90</td>
<td>$29.40</td>
<td>$30.90</td>
</tr>
<tr>
<td>*plus 7% of</td>
<td>hourly wage</td>
<td>hourly wage</td>
<td>hourly wage</td>
<td></td>
</tr>
<tr>
<td>Equipment Operators</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*The 7% is based on the hourly wage paid, straight time or premium time.

**OVERTIME PAY**

See (B, E, Q,) on OVERTIME PAGE. *Note* Double time for all emergency work designated by the Dept. of Jurisdiction.

**NOTE: WAGE CAP** - Double the straight time hourly base wage shall be the maximum hourly wage compensation for any hour worked. Contractor is still responsible to pay the hourly benefit amount for each hour worked.

**HOLIDAY**

Paid See ( 5, 6, 8, 13, 25 ) on HOLIDAY PAGE plus Governor of NYS Election Day.

Overtime See ( 5, 6, 8, 13, 25 ) on HOLIDAY PAGE plus Governor of NYS Election Day.

NOTE: All paid holidays falling on Saturday shall be observed on the preceding Friday. All paid holidays falling on Sunday shall be observed on the following Monday. Supplements for holidays paid at straight time.

**REGISTERED APPRENTICES**

WAGES per hour: 1000 hour terms at the following percentage of the applicable Journeyman Lineman wage.

<table>
<thead>
<tr>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
<th>5th</th>
<th>6th</th>
<th>7th</th>
</tr>
</thead>
<tbody>
<tr>
<td>60%</td>
<td>65%</td>
<td>70%</td>
<td>75%</td>
<td>80%</td>
<td>85%</td>
<td>90%</td>
</tr>
</tbody>
</table>

**SUPPLEMENTAL BENEFITS per hour:**

<table>
<thead>
<tr>
<th></th>
<th>07/01/2021</th>
<th>05/02/2022</th>
<th>05/01/2023</th>
<th>05/06/2024</th>
</tr>
</thead>
<tbody>
<tr>
<td>$25.40</td>
<td>$25.90</td>
<td>$26.40</td>
<td>$26.90</td>
<td></td>
</tr>
<tr>
<td>*plus 7% of</td>
<td>hourly wage</td>
<td>hourly wage</td>
<td>hourly wage</td>
<td></td>
</tr>
</tbody>
</table>

*The 7% is based on the hourly wage paid, straight time or premium time.

---

**Lineman Electrician - Teledata**

**JOB DESCRIPTION** Lineman Electrician - Teledata

**DISTRICT** 6

**ENTIRE COUNTIES**


**WAGES**

Per hour:

For outside work, stopping at first point of attachment (demarcation).

<table>
<thead>
<tr>
<th></th>
<th>07/01/2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cable Splicer</td>
<td>$34.78</td>
</tr>
<tr>
<td>Installer, Repairman</td>
<td>$33.01</td>
</tr>
<tr>
<td>Teledata Lineman</td>
<td>$33.01</td>
</tr>
<tr>
<td>Tech., Equip. Operator</td>
<td>$33.01</td>
</tr>
<tr>
<td>Groundman</td>
<td>$17.50</td>
</tr>
</tbody>
</table>

NOTE: EXCLUDES Teledata work within ten (10) feet of High Voltage (600 volts and over) transmission lines. For this work please see LINEMAN.
NOTE: THE FOLLOWING RATES WILL APPLY ON ALL CONTRACTING AGENCY MANDATED MULTIPLE SHIFTS OF AT LEAST FIVE (5) DAYS DURATION WORKED:

1ST SHIFT  REGULAR RATE
2ND SHIFT  REGULAR RATE PLUS 10%
3RD SHIFT  REGULAR RATE PLUS 15%

SUPPLEMENTAL BENEFITS
Per hour:
Journeyman $ 5.14
*plus 3% of wage paid

*The 3% is based on the hourly wage paid, straight time rate or premium rate.

OVERTIME PAY
See (B, E, Q) on OVERTIME PAGE
NOTE: WAGE CAP - Double the straight time hourly base wage shall be the maximum hourly wage compensation for any hour worked. Contractor is still responsible to pay the hourly benefit amount for each hour worked.

HOLIDAY
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6, 16) on HOLIDAY PAGE

Lineman Electrician - Traffic Signal, Lighting 12/01/2021

JOB DESCRIPTION Lineman Electrician - Traffic Signal, Lighting

ENTIRE COUNTIES

WAGES
Lineman/Technician shall perform all overhead aerial work. A Lineman/Technician on the ground will install all electrical panels, connect all grounds, install and connect all electrical conductors which includes, but is not limited to road loop wires; conduit and plastic or other type pipes that carry conductors, flex cables and connectors, and to oversee the encasement or burial of such conduits or pipes.

A Groundman/Groundman Truck Driver shall: Build and set concrete forms, handle steel mesh, set footer cages, transport concrete in a wheelbarrow, hand or machine concrete vibrator, finish concrete footers, mix mortar, grout pole bases, cover and maintain footers while curing in cold weather, operate jack hammer, operate hand pavement breaker, tamper, concrete and other motorized saws, as a drill helper, operate and maintain generators, water pumps, chainsaws, sand blasting, operate mulching and seeding machine, air tools, electric tools, gas tools, load and unload materials, hand shovel and/or broom, prepare and pour mastic and other fillers, assist digger operator equipment operator in ground excavation and restoration, landscape work and painting. Only when assisting a lineman technician, a groundman/groundman truck driver may assist in installing conduit, pipe, cables and equipment.

A flagger's duties shall consist of traffic control only.
(Ref #14.01.01)

Per hour: 07/01/2021 05/02/2022 05/01/2023 05/06/2024
Lineman, Technician $ 47.15 $ 48.19 $ 49.32 $ 50.54
Crane, Crawler Backhoe 47.15 48.19 49.32 50.54
Certified Welder 49.51 50.60 51.79 53.07
Digger Machine 42.44 43.37 44.39 45.49
Tractor Trailer Driver 40.08 40.96 41.92 42.96
Groundman, Truck Driver 37.72 38.55 39.46 40.43
Equipment Mechanic 37.72 38.55 39.46 40.43
Flagman 28.29 28.91 29.59 30.32

Above rates are applicable for installation, testing, operation, maintenance and repair on all Traffic Control (Signal) and Illumination (Lighting) projects, Traffic Monitoring Systems, and Road Weather Information Systems. Includes digging of holes for poles, anchors, footer foundations for electrical equipment; assembly of all electrical materials or raceway; placing of fish wire; pulling of cables, wires or fiber optic cable through such raceways; splicing of conductors; dismantling of such structures, lines or equipment.

NOTE: THE FOLLOWING RATES WILL APPLY ON ALL CONTRACTING AGENCY MANDATED MULTIPLE SHIFTS OF AT LEAST FIVE (5) DAYS DURATION WORKED BETWEEN THE HOURS LISTED BELOW:
1ST SHIFT 8:00 AM TO 4:30 PM REGULAR RATE
2ND SHIFT 4:30 PM TO 1:00 AM REGULAR RATE PLUS 17.3%
3RD SHIFT 12:30 AM TO 9:00 AM REGULAR RATE PLUS 31.4%

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day.

Tuesday thru Friday may be worked with no make-up day.

NOTE - In order to use the '4 Day/10 Hour Work schedule', as your normal schedule, you must submit an 'Employer Registration for Use of 4 Day/10 Hour Work Schedule,' form PW30.1; and there must be a dispensation of hours in place on the project. If the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.

SUPPLEMENTAL BENEFITS
Per hour worked (but also required on non-worked holidays):

<table>
<thead>
<tr>
<th></th>
<th>07/01/2021</th>
<th>05/02/2022</th>
<th>05/01/2023</th>
<th>05/06/2024</th>
</tr>
</thead>
<tbody>
<tr>
<td>Journeyman Lineman or</td>
<td>$26.40</td>
<td>$27.90</td>
<td>$29.40</td>
<td>$30.90</td>
</tr>
<tr>
<td>Equipment Operators with Crane License</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>hourly wage</td>
<td>*plus 7% of hourly wage</td>
<td>*plus 7% of hourly wage</td>
<td>*plus 7% of hourly wage</td>
<td>*plus 7% of hourly wage</td>
</tr>
</tbody>
</table>

*The 7% is based on the hourly wage paid, straight time or premium time.

OVERTIME PAY
See (B, E, Q) on OVERTIME PAGE. *Note* Double time for all emergency work designated by the Dept. of Jurisdiction.

NOTE: WAGE CAP - Double the straight time hourly base wage shall be the maximum hourly wage compensation for any hour worked. Contractor is still responsible to pay the hourly benefit amount for each hour worked.

HOLIDAY
Paid: See (5, 6, 8, 13, 25) on HOLIDAY PAGE plus Governor of NYS Election Day.
Overtime: See (5, 6, 8, 13, 25) on HOLIDAY PAGE plus Governor of NYS Election Day.

NOTE: All paid holidays falling on Saturday shall be observed on the preceding Friday. All paid holidays falling on Sunday shall be observed on the following Monday. Supplements for holidays paid at straight time.

REGISTERED APPRENTICES
WAGES per hour: 1000 hour terms at the following percentage of the applicable Journeyman Lineman wage.

<table>
<thead>
<tr>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
<th>5th</th>
<th>6th</th>
<th>7th</th>
</tr>
</thead>
<tbody>
<tr>
<td>60%</td>
<td>65%</td>
<td>70%</td>
<td>75%</td>
<td>80%</td>
<td>85%</td>
<td>90%</td>
</tr>
</tbody>
</table>

SUPPLEMENTAL BENEFITS per hour:

<table>
<thead>
<tr>
<th></th>
<th>07/01/2021</th>
<th>05/02/2022</th>
<th>05/01/2023</th>
<th>05/06/2024</th>
</tr>
</thead>
<tbody>
<tr>
<td>$25.40</td>
<td>$25.90</td>
<td>$26.40</td>
<td>$26.90</td>
<td></td>
</tr>
<tr>
<td>*plus 7% of hourly wage</td>
<td>*plus 7% of hourly wage</td>
<td>*plus 7% of hourly wage</td>
<td>*plus 7% of hourly wage</td>
<td></td>
</tr>
</tbody>
</table>

*The 7% is based on the hourly wage paid, straight time or premium time.

Lineman Electrician - Tree Trimmer

JOB DESCRIPTION Lineman Electrician - Tree Trimmer

ENTIRE COUNTIES

WAGES
Applies to line clearance, tree work and right-of-way preparation on all new or existing energized overhead or underground electrical, telephone and CATV lines. This also would include stump removal near underground energized electrical lines, including telephone and CATV lines.

Per hour:

<table>
<thead>
<tr>
<th></th>
<th>07/01/2021</th>
<th>01/02/2022</th>
<th>12/31/2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tree Trimmer</td>
<td>$27.36</td>
<td>$28.25</td>
<td>$29.80</td>
</tr>
<tr>
<td>Equipment Operator</td>
<td>24.19</td>
<td>24.98</td>
<td>26.35</td>
</tr>
<tr>
<td>Equipment Mechanic</td>
<td>24.19</td>
<td>24.98</td>
<td>26.35</td>
</tr>
<tr>
<td>Truck Driver</td>
<td>20.15</td>
<td>20.80</td>
<td>21.94</td>
</tr>
</tbody>
</table>
Prevailing Wage Rates for 07/01/2021 - 06/30/2022 Published by the New York State Department of Labor
Last Published on Dec 01 2021 PRC Number 2021008719 Niagara County

Groundman 16.59 17.13 18.07
Flag person 12.50* 12.50* 13.03*

*NOTE: Subject to change due to any minimum wage increases. Rate effective 12/31/2021: $13.20

**SUPPLEMENTAL BENEFITS**
Per hour worked (but also required on non-worked holidays):

<table>
<thead>
<tr>
<th></th>
<th>07/01/2021</th>
<th>12/01/2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plasterer</td>
<td>$30.15</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Additional $3.00/hr for work on swing stage over 20 feet.

**OVERTIME PAY**
See (B, E, Q) on OVERTIME PAGE

**HOLIDAY**
Paid: See (5, 6, 8, 15) on HOLIDAY PAGE
Overtime: See (5, 6, 8, 15, 16, 25) on HOLIDAY PAGE

NOTE: All paid holidays falling on a Saturday shall be observed on the preceding Friday.
All paid holidays falling on a Sunday shall be observed on the following Monday.

**REGISTERED APPRENTICES**
Wages per hour:

<table>
<thead>
<tr>
<th>Hour terms at the following dollar amounts:</th>
<th>0 to 1000</th>
<th>2000 to 3000</th>
<th>4000 to 5000</th>
<th>6000 to 7000</th>
<th>8000</th>
</tr>
</thead>
<tbody>
<tr>
<td>$ 12.50</td>
<td>$ 14.00</td>
<td>$ 15.00</td>
<td>$ 16.00</td>
<td>$ 17.00</td>
<td>$ 18.00</td>
</tr>
<tr>
<td>$ 19.00</td>
<td>$ 20.00</td>
<td>$ 21.00</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Supplemental benefits per hour:

<table>
<thead>
<tr>
<th>Hour terms at the following dollar amounts:</th>
<th>0 to 4000</th>
<th>4700 to 5400</th>
<th>6000 to 8000</th>
</tr>
</thead>
<tbody>
<tr>
<td>$ 2.50</td>
<td>$ 3.50</td>
<td>$ 4.50</td>
<td>$ 5.50</td>
</tr>
</tbody>
</table>

---

Mason - Building 12/01/2021

**JOB DESCRIPTION** Mason - Building

**ENTIRE COUNTIES**
Erie, Niagara

**PARTIAL COUNTIES**
Cattaraugus: Only the Township of Perrysburg and the Village of Gowanda.

**WAGES**
Per hour: 07/01/2021
Plasterer $ 30.15

Additional $3.00/hr for work on swing stage over 20 feet.

**SUPPLEMENTAL BENEFITS**
Per hour: $ 22.49

**OVERTIME PAY**
Exterior work only See (B, E, E2, Q) on OVERTIME PAGE.
All other work See (B, E, Q) on OVERTIME PAGE.

**HOLIDAY**
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

**REGISTERED APPRENTICES**
Wages per hour:

<table>
<thead>
<tr>
<th>Hour terms at the following dollar amounts:</th>
<th>0 to 1000</th>
<th>2000 to 3000</th>
<th>4000 to 5000</th>
<th>6000 to 7000</th>
<th>8000</th>
</tr>
</thead>
<tbody>
<tr>
<td>$ 12.50</td>
<td>$ 14.00</td>
<td>$ 15.00</td>
<td>$ 16.00</td>
<td>$ 17.00</td>
<td>$ 18.00</td>
</tr>
<tr>
<td>$ 19.00</td>
<td>$ 20.00</td>
<td>$ 21.00</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Supplemental benefits per hour:

<table>
<thead>
<tr>
<th>Hour terms at the following dollar amounts:</th>
<th>0 to 4000</th>
<th>4700 to 5400</th>
<th>6000 to 8000</th>
</tr>
</thead>
<tbody>
<tr>
<td>$ 2.50</td>
<td>$ 3.50</td>
<td>$ 4.50</td>
<td>$ 5.50</td>
</tr>
</tbody>
</table>

---

Mason - Building 12/01/2021

**JOB DESCRIPTION** Mason - Building

**ENTIRE COUNTIES**
Erie, Niagara

3-9-Pltr
### PARTIAL COUNTIES
Cattaraugus: Only the Township of Perrysburg and the Village of Gowanda.

### WAGES

<table>
<thead>
<tr>
<th>Per Hour: 07/01/2021</th>
<th>Building:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bricklayer</td>
<td>$ 32.57</td>
</tr>
<tr>
<td>Stone Mason</td>
<td>32.57</td>
</tr>
<tr>
<td>Tuck Pointer</td>
<td>32.57</td>
</tr>
</tbody>
</table>

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day.

**NOTE** - In order to use the '4 Day/10 Hour Work schedule', as your normal schedule, you must submit an 'Employer Registration for Use of 4 Day/10 Hour Work Schedule,' form PW30.1; and there must be a dispensation of hours in place on the project. If the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.

### SUPPLEMENTAL BENEFITS

<table>
<thead>
<tr>
<th>Per hour:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Journeymen</td>
</tr>
</tbody>
</table>

### OVERTIME PAY

See (B, E, E2*, Q) on OVERTIME PAGE

*Note - Or other conditions beyond the employer's control such as fire or natural disaster.

### HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

### REGISTERED APPRENTICES

Wages per hour:

1250 hour terms at the following wage:

<table>
<thead>
<tr>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
</tr>
</thead>
<tbody>
<tr>
<td>$ 25.87</td>
<td>$ 26.01</td>
<td>$ 27.72</td>
<td>$ 30.21</td>
</tr>
</tbody>
</table>

Supplemental benefits per hour:

<table>
<thead>
<tr>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
</tr>
</thead>
<tbody>
<tr>
<td>$ 12.35</td>
<td>$ 18.61</td>
<td>$ 23.30</td>
<td>$ 27.22</td>
</tr>
</tbody>
</table>

### Mason - Building / Heavy&Highway 12/01/2021

### ENTIRE COUNTIES
Niagara

### WAGES

<table>
<thead>
<tr>
<th>Per hour: 07/01/2021</th>
<th>Additional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cement Mason</td>
<td>$ 30.90</td>
</tr>
</tbody>
</table>

Additional $0.50 per hr for Swing scaffold or exterior scaffold 42' or higher.

Additional $1.00 per hr when required to wear personal protective equipment including suit and/or respirator.

### SUPPLEMENTAL BENEFITS

Per hour: $ 35.77

### OVERTIME PAY

See (B, E, Q, V) on OVERTIME PAGE

### HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

### REGISTERED APPRENTICES

Wages per hour:

750 hour terms at the following dollar amounts:

<table>
<thead>
<tr>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
<th>5th</th>
<th>6th</th>
</tr>
</thead>
<tbody>
<tr>
<td>$ 15.58</td>
<td>$ 17.13</td>
<td>$ 20.19</td>
<td>$ 23.25</td>
<td>$ 26.36</td>
<td>$ 29.48</td>
</tr>
</tbody>
</table>
Supplemental benefits per hour:

<table>
<thead>
<tr>
<th></th>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
<th>5th</th>
<th>6th</th>
</tr>
</thead>
<tbody>
<tr>
<td>$</td>
<td>$9.11</td>
<td>$11.96</td>
<td>$11.99</td>
<td>$15.26</td>
<td>$17.45</td>
<td>$20.82</td>
</tr>
</tbody>
</table>

---

**Mason - Heavy&Highway**

**JOB DESCRIPTION** Mason - Heavy&Highway  
**DISTRICT** 5

**ENTIRE COUNTIES**
Allegany, Broome, Chautauqua, Chemung, Chenango, Cortland, Delaware, Genesee, Livingston, Monroe, Ontario, Orleans, Otsego, Schuyler, Seneca, Steuben, Tioga, Tompkins, Wayne, Wyoming, Yates

**PARTIAL COUNTIES**
Cattaraugus: Entire county except in the Township of Perrysburg and the Village of Gowanda only the Bricklayer classification applies.  
Erie: Only the Bricklayer classification applies.  
Niagara: Only the Bricklayer classification applies.

**WAGES**
Per hour: 07/01/2021  
Heavy & Highway:  
Cement Mason $ 32.53  
Bricklayer 32.53

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day.

NOTE - In order to use the '4 Day/10 Hour Work schedule', as your normal schedule, you must submit an 'Employer Registration for Use of 4 Day/10 Hour Work Schedule,' form PW30.1; and there must be a dispensation of hours in place on the project. If the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.

**SUPPLEMENTAL BENEFITS**
Per hour:  
Journeyman $ 23.13

**OVERTIME PAY**
See (B, E, E2, Q) on OVERTIME PAGE

**HOLIDAY**
Paid: See (1) on HOLIDAY PAGE  
Overtime: See (5, 6) on HOLIDAY PAGE

**REGISTERED APPRENTICES**
Wages per hour:  
1500 hour terms at the following percentage of Journeyman's wage:  

<table>
<thead>
<tr>
<th></th>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>50%</td>
<td>60%</td>
<td>70%</td>
<td>80%</td>
</tr>
</tbody>
</table>

Supplemental benefits per hour:  
1st term $ 14.13  
2nd - 4th term 23.13

---

**Mason - Tile Finisher**

**JOB DESCRIPTION** Mason - Tile Finisher  
**DISTRICT** 5

**ENTIRE COUNTIES**
Erie, Niagara, Orleans

**PARTIAL COUNTIES**
Cattaraugus: Only the Township of Perrysburg and the Village of Gowanda.

**WAGES**
Per hour: 07/01/2021  
Building:  
Marble, Slate, Terrazzo $ 29.46  
and Tile Finisher
Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day.

NOTE - In order to use the '4 Day/10 Hour Work schedule', as your normal schedule, you must submit an 'Employer Registration for Use of 4 Day/10 Hour Work Schedule,' form PW30.1; and there must be a dispensation of hours in place on the project. If the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.

SUPPLEMENTAL BENEFITS
Per hour: $16.47

OVERTIME PAY
See (B,E,E2*,Q) on OVERTIME PAGE
*Note - Or other conditions beyond the employer's control such as fire or natural disaster.

HOLIDAY
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES
Wages per hour:
1200 hours 1st and 2nd term and 1300 hours 3rd term at the following wage:

<table>
<thead>
<tr>
<th></th>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wage</td>
<td>$18.84</td>
<td>$21.38</td>
<td>$24.23</td>
</tr>
</tbody>
</table>

Supplemental benefits per hour:

<table>
<thead>
<tr>
<th></th>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wage</td>
<td>$8.64</td>
<td>$10.71</td>
<td>$12.47</td>
</tr>
</tbody>
</table>

Mason - Tile Setter

JOB DESCRIPTION Mason - Tile Setter

ENTIRE COUNTIES
Erie, Niagara, Orleans

PARTIAL COUNTIES
Cattaraugus: Only in the Township of Perrysburg and the Village of Gowanda.

WAGES
Per hour: 07/01/2021
Building:
Marble, Slate, Terrazzo and Tile Setter $32.60

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day.

NOTE - In order to use the '4 Day/10 Hour Work schedule', as your normal schedule, you must submit an 'Employer Registration for Use of 4 Day/10 Hour Work Schedule,' form PW30.1; and there must be a dispensation of hours in place on the project. If the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.

SUPPLEMENTAL BENEFITS
Per hour: $30.73

OVERTIME PAY
See (B,E,E2*,Q) on OVERTIME PAGE
*Note - Or other conditions beyond the employer's control such as fire or natural disaster.

HOLIDAY
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES
Wages per hour:
1250 hour terms at the following wage:

<table>
<thead>
<tr>
<th></th>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wage</td>
<td>$25.75</td>
<td>$25.84</td>
<td>$27.33</td>
<td>$30.52</td>
</tr>
</tbody>
</table>

Supplemental benefits per hour:

<table>
<thead>
<tr>
<th></th>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wage</td>
<td>$25.75</td>
<td>$25.84</td>
<td>$27.33</td>
<td>$30.52</td>
</tr>
</tbody>
</table>
Millwright

**JOB DESCRIPTION** Millwright

**ENTIRE COUNTIES** Erie, Genesee, Niagara

**WAGES**

Per hour: 07/01/2021

- Building: $34.25
- Heavy & Highway*: 36.25

*All Heavy & Highway Millwright construction will be paid at the rate indicated above. H/H work performed on hazardous waste sites where employees are required to wear protective gear shall receive an additional $2.00 per hour over the Millwright H/H rate for all hours worked on the day protective gear was worn.

**NOTE ADDITIONAL PREMIUMS PAID FOR THE FOLLOWING WORK LISTED BELOW (amount subject to any overtime premiums):**

- Certified Welders shall receive $1.75 per hour in addition to the current Millwright's rate provided he/she is directed to perform certified welding.
- If a building work site has been declared a hazardous site by the Owner and the use of protective gear (including, as a minimum, air purifying canister-type chemical respirators) are required, then that employee shall receive a $1.50 premium per hour.
- An employee performing the work of a machinist shall receive $2.00 per hour in addition to the current Building Millwright's rate. For the purposes of this premium to apply, a "machinist" is a person who uses a lathe, Bridgeport, milling machine or similar type of tool to make or modify parts.
- When performing work underground at 500 feet and below, the employee shall receive an additional $1.00 per hour.

**SUPPLEMENTAL BENEFITS**

Per hour Paid:

- All Classifications: $30.35

**OVERTIME PAY**

See (B, E, E2, Q) on OVERTIME PAGE

**HOLIDAY**

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

**REGISTERED APPRENTICES**

Wages per hour:

1300 hour terms at the following percentage of Journeyman's wage:

<table>
<thead>
<tr>
<th></th>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
</tr>
</thead>
<tbody>
<tr>
<td>60%</td>
<td>12.26</td>
<td>24.92</td>
<td>26.73</td>
<td>28.54</td>
</tr>
</tbody>
</table>

Supplemental Benefits per hour worked:

<table>
<thead>
<tr>
<th></th>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-1163-Gen/Nia/Orl/Wyo</td>
<td>$12.26</td>
<td>$24.92</td>
<td>$26.73</td>
<td>$28.54</td>
</tr>
</tbody>
</table>

Operating Engineer - Building

**JOB DESCRIPTION** Operating Engineer - Building

**ENTIRE COUNTIES** Niagara

**WAGES**

CLASS A1: Lattice boom cranes, and all other cranes over Sixty (60) ton capacity. (Additional long boom rate still applies when applicable.)
CLASS A: All rollers used on finished blacktop, crane work shovels, derricks, steel erection, overhead or bridge cranes and clam buckets, trenchers, when excavation over six (6) feet in depth, back fillers, cable ways, drag lines, back hoes, pile-driving rigs, post drivers (except truck mounted post drivers), concrete mixers one (1) yard and over, tunnel mucking machines, and all tractors used in conjunction with scraper wagons, snow loader, all repair work on maintenance work under the supervision of a Master Mechanic, lubrication engineers, bulldozers, graders, blacktop spreaders, front and back loaders (except small types), power driven stone spreaders, portable stone crushers, and the following combination machines: Crawler or rubber tire tractors with blade or bucket and crane boom or hoe or shovel boom attached (except farm type crawler or rubber tire tractor unless used with hydraulic backhoe), compressor with paving breaker attached, graders with bulldozer blades, multiple drum hoists with air compressor when used simultaneously for more than one purpose and single drum hoist when used to hoist steel, power driven generator and compressor when used simultaneously and for any make of portable Concrete Batching Machine; automatic batch plant operator, concrete spreader operator and finishing machine operators, form puller, scraper, either double or single bowl; CMI grading machines, truck mounted concrete pump, self-propelled riding vibrators, hydraulic concrete joint hammers, Kolman loaders, concrete planners, mechanic, welder, Euclid Type Belt Loaders, Mechanical and Hydraulic pipe Pushing Machine, and all scoopmobiles, fork-lifts and hoists when lifting material an elevation higher than twenty-five (25) feet; Hydro Axe; Tree Bandit or similar Chipper; All Pavement Breakers except Hand Operated Pavement Breakers; Ingersol Rand LM 500 type Hydraulic Rock Drill; S-240 Lazer-Guided Screed.

CLASS B: All elevators, material hoists, road rollers except on finished blacktop, Road Widener mounted on loader, tractors, pavement busters, trenchers excavating up to six (6) feet in depth, pumps over four (4) inches, concrete blowers, air compressors over one hundred sixty-five (165) cu. ft., compressors when used in banks of two (2) and not over three (3) (within a fifty (50) foot radius and if fuel is stored it will be stored within the same radius); guinite machine, winch tractors, locomotive, scoopmobiles, when used as a stationary hoist, or one used to lift material not in excess of twenty-five (25) feet, concrete pumps, conveyers, gas or diesel driven temporary light and power systems of twenty-five (25) kilowatt capacity or over, stone crushers and winch hoists mounted on trucks, all earth drills, LaTourneau turntrailers, highlift hoists while used to lift material not over twenty-five (25) feet, gasoline heaters used in banks of two (2) and not over three (3) (within an area of one hundred (100) foot radius); and for two (2) but not over three (3) gasoline or diesel driven welding machines; trenchers on the back of a jeep, truck mounted post drivers, show-go, small front or back loaders, bobcat type skid loader, small farm type crawler or rubber tire tractor with blade or bucket not to exceed one-half (1/2) yard capacity and single drum hoist for hoisting materials other than steel. Pug Machine, Pin Puller, self-propelled rollers not on finished blacktop and under seven (7) tons, or fork-lift while used to lift material not over twenty-five (25) feet. Parts room Engineer.

CLASS C: Junior Engineer shall be employed as oilers or helpers on all cranes, shovels, draglines, erection machines, back hoes, all hydraulic and all lattice boom crawler cranes over eighty (80) ton capacity, and all lattice boom truck cranes over (60) ton capacity (except on rubber-tired or crawler all-terrain self-propelled hydraulic cranes), one seat operation, trenching machines which cut a trench over twenty-four (24) inches in width and in excess of a six (6) foot depth, all tractor-mounted concrete mixers one (1) yard or over, and portable batch machines. Junior Engineers shall be employed to operate pumps up to and including four (4) inches, compressors 165 cu. ft. per minute and under, gas or diesel driven temporary lighting or power systems of three (3) kilowatts in capacity up to twenty-five (25) kilowatts, and gas and electric vibrating machines. Shall assist in the placing of trucks. When there are three (3) or not in excess of six (6) oil fire heaters on a job. A Junior Engineer will be provided on rubberized equipment, when there is a separate cab to the house.

Per hour: 07/01/2021

CLASS A1 39.42
CLASS A 37.62
CLASS B 36.23
CLASS C 32.51

Full Air Apparatus add $4.00/hr to base rate.
Hazardous Waste add $2.50 to base rate.
Lattice Boom (except class A1) add $1.60 to base rate
Long Boom Rate (includes jib) over 300ft add $2.00/hr to base rate.
over 200ft add $1.25/hr to base rate.
over 150ft add $0.75/hr to base rate.

SUPPLEMENTAL BENEFITS

Per hour:

All Operators $ 31.40

OVERTIME PAY

See (B, E, Q, *W, X) on OVERTIME PAGE

*Note: The Halftime (1/2) portion of the overtime benefit is paid to the employee in wages.

HOLIDAY

Paid: See (3, 17, 20) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

NOTE: Holiday pay for the Paid Holidays listed, is only required if the holiday is not worked.

REGISTERED APPRENTICES

Wages per hour:
Hour terms at the following percentage of the "Class B" wage:

0 to 1000 to 2000 to 3000 to 4100
65% 70% 75% 80%

Supplemental benefits per hour Paid:

$ 31.40

Operating Engineer - Heavy&Highway 12/01/2021

JOB DESCRIPTION Operating Engineer - Heavy&Highway

DISTRICT 12

ENTIRE COUNTIES
Chautauqua, Erie, Niagara, Orleans

WAGES
Marine Construction/Dredging

Class 1: Diver/Wet Tender, Engineer, Engineer(hydraulic dredge), Blaster.

Class 2(A): Crane, Backhoe Operator, Material Handler, ALL Self-propelled Drill Rigs, Mechanic/Welder, Asst. Engineer(hydraulic dredge), Leverman(hydraulic dredge), Diver/Dry Tender.

Class 2(B): Friction, Lattice Boom, or Crane License Certificate, Endorse Tug or Tow Boat Operator.

Class 3: Deck Equipment Operator, (Machinryman), Maintenance of Crane, Tug/Launch Operator, Loader/Dozer on Barge.

Class 4: Deck Equipment Operator and Machineryman/Fireman on 4 equipment units or more, Off Road Trucks, Deck Hand, Tug Engineer, Crane Maintenance(50 tons and under/ backhoe 115,000lbs or less), Asst. Tug Operator, Blaster Helper.

Per hour: 07/01/2021

Class 1 $ 48.80
Class 2(A) 47.30
Class 2(B) 50.30
Class 3 42.10
Class 4 35.00

Hazardous/Toxic Waste based on EAP Levels

Additional:
Level A - $2.50/Hr.
Level B - 2.00/Hr.
Level C - 1.00/Hr.
Level D - 0.50/Hr.

SUPPLEMENTAL BENEFITS
Per Hour Paid:

ALL CLASSES $ 32.04

OVERTIME PAY
See (B, E, I, *S) on OVERTIME PAGE

* If the Holiday is Worked

HOLIDAY
Paid: See (5, 6, 15, 25) on HOLIDAY PAGE
CLASS A: Air Hoist, All Boom Type Equipment, All Pans and Carry-Alls, Asphalt Curb and Cutter Machines, Asphalt Roller, Asphalt Spreader or Paver, Automatic Fine Grade Machine (CMI or similar, first and second operator), Backhoe and Pilehoe (all), Back Filling Machine, Belt Placer (CMI or similar type), Bending Machine (pipe), Bituminous Spreader and Mixer, Blacktop Plant (all), Blast or Rotary Drill (Truck or Track Mounted), Blower for Burning Brush, Boiler (when used for power), Boom Truck, Boring Machine, Bulldozer, Cableway, Cage Hoist, Caisson Auger, Central Mix Plant (and all Concrete Batching Plants), Cherry Picker, Concrete Cleaning Decontamination Machine, Concrete Curb and Gutter Machine, Concrete Curing Machine, Concrete Mixer (over 1/2 cu. yd.), Concrete Pavement Spreaders and Finishers, Concrete Paver, Concrete Pump, Concrete Saw (self propelled), Conveyor, Convoying Vehicles Convoying Engineer's Equipment, Core Drill, Crane, Crusher, Decontamination of Equipment, Derrick, Dragline, Dredge, Drill Rig (Tractor Mounted), Dual Drum Paver, Electric Pump used in conjunction with Well Point Systems, Elevating Grader (self propelled or towed), Elevator, Excavator (all purpose, hydraulically operated), Farm Tractor with Accessories, Fine Grade Machine, Forklift, Front End Loader, Gradall, Grader, Grout or Gunite Machine, Head Tower, High Equipment Robotics Operator/Mechanic, Hoist (all types), Hoisting Engine, Horizontal Directional Drill Locator, Horizontal Directional Drill Operator, Hydraulic Boom, Hydraulic Hammer (self propelled), Hydraulic Pipe Jack Machine, (or similar type machine), Hydraulic Rock Expander (or similar type machine), Hydraulic System Pumps, Industrial Tractor, Jersey Spreader, Kolman Plant Loader (and similar type Loaders), Laser Screed, Locomotive, Log Skidder (similar type), Maintenance Engineer, Maintenance, Lubrication Unit or Truck, Mine Hoist, Mixer for Stabilized Base (self propelled), Monorail, Motorized Hydraulic Pin Puller, Motorized Hydraulic Seeder, Mucking Machine, Mulching Machine, Overhead Crane, Parts Chasing, Peine Crane (or similar type), Pile Driver, Plant Engineer, Pneumatic Mixer, Post Hole Digger and Post Driver, Power Broom, Pump Crete, Push Button Hoist, Push or Snatch Cat, Quarry Master (or equivalent), Road Widener, Rock Bit Sharpeners (all types), Roller (all), Rolling Machine (Pipe), Rotomill, Scoopmobile, Shovel, Side Boom, Skidsteer/Bobcat (similar type), Skimmer, Slip Form Paver (CMI or similar, first and second operator), Snorkel/Vacuum Truck, Strato-Tower, Tire Truck & Repair, Towed Roller, Tractor Drawn Belt-Type Grader/Loader, Tractor Shovel, Tractor with Towed Accessories, Tractors (when using winch power), Trencher, Truck Crane, Tug Boats, Tunnel Shovel, Tube Finisher (CMI and similar), Vacuum Blasting Machine Operator/Mechanic, Vibratory Compactor, Vibro Tamp, Waterjet Cutting Tool System Operator/Mechanic (Ultra High Pressure), Well Drilling Machine, Well Point, Winch, Winch Truck with A Frame.

CLASS B: Aggregate Bin, Aggregate Plant, Apprentice Engineer, Apprentice Engineer Driver, Articulated Off Road Material Hauler, CMI and similar type Concrete Spreads (Apprentice Engineer), Cement Bin, Chipping Machine and Chip Spreader, Compressors (4 or less), Compressors: any size, but subject to other provisions for Compressors, Dust Collectors, Generators, Mechanical Heaters, Pumps, Welding Machines (four of any type or combination), Concrete Mixer (1/2 cu. yd. and under), Fireman, Form Tamper, Fuel Truck, Heating Boiler (used for temporary heat), Helper on Lubrication Unit or Truck, Jeep Trencher, Power Heateman, Power Plant in excess of 10 K.W., Pumps (4* or over), Revinius Widener, Steam Cleaner, Stump Chipping Machine, Welding Machine (1 machine over 300 amps or 2 or 3 machines regardless of amps).

Operating Engineer- Heavy/Highway, Sewer/Water, Tunnel:

<table>
<thead>
<tr>
<th>Per hour:</th>
<th>07/01/2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class A</td>
<td>$ 40.64</td>
</tr>
<tr>
<td>Class B</td>
<td>36.14</td>
</tr>
<tr>
<td>Crane 5 to 60 tons</td>
<td>43.64</td>
</tr>
<tr>
<td>* 61 to 199 tons</td>
<td>44.14</td>
</tr>
<tr>
<td>* 200 to 399 tons</td>
<td>44.64</td>
</tr>
<tr>
<td>* 400 and over</td>
<td>45.14</td>
</tr>
</tbody>
</table>

Additional $2.50/hr. for Hazardous Work Site
Additional $1.00/hr. for Tunnel Work
Additional $4.00/hr. for Mandated Off-Shift Work

SUPPLEMENTAL BENEFITS
Per hour:
Journeymen $ 33.16*

*Note: For Overtime Hours $25.21 of the amount paid at straight time, the remaining balance of 7.95 is paid at the same premium as the wage.

OVERTIME PAY
See (B, E, Q, W) on OVERTIME PAGE

HOLIDAY
Paid: See (*5, **6) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

*Saturday Holidays will be recognized on the Friday before
**Sunday Holidays will be recognized on the Monday after

REGISTERED APPRENTICES
Wages per hour:
Apprentices at 1 year terms

<table>
<thead>
<tr>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
</tr>
</thead>
<tbody>
<tr>
<td>$33.14</td>
<td>$34.14</td>
<td>$35.14</td>
<td>$36.14</td>
</tr>
</tbody>
</table>

Page 42
Supplemental Benefits

All Apprentices $32.76*

*Note: For Overtime Hours $25.21 of the amount paid at straight time, the remaining balance of $7.55 is paid at same premium as the wage.

Operating Engineer - Survey Crew 12/01/2021

JOB DESCRIPTION Operating Engineer - Survey Crew

DISTRIBUTION 12

ENTIRE COUNTIES Cattaraugus, Chautauqua, Erie, Niagara, Orleans, Wyoming

PARTIAL COUNTIES Genesee: Only that portion of the county that lies west of a line down the center of Route 98 excluding that area that lies within the City of Batavia.

WAGES These rates apply to Building, Heavy and Highway Construction.

Per hour:

SURVEY CLASSIFICATIONS:

Party Chief - One who directs a survey party.
Instrument Person - One who operates the surveying instruments.
Rod Person - One who holds the rods and assists the Instrument Person.

07/01/2021

Party Chief $44.09
Instrument Person $41.57
Rod Person $28.75

Additional $3.00 per hr. for work in a Tunnel.
Additional $2.50 per hr. for EPA or DEC certified toxic or hazardous waste work.

SUPPLEMENTAL BENEFITS

Per hour worked:

Journeyman $28.75

OVERTIME PAY

See (B, E, Q, *X) on OVERTIME PAGE

*Note: $23.75 Only for "ALL" premium hours when worked.

HOLIDAY

Paid: See (5, 6) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

WAGES: 1000 hour terms based on the Percentage of Rod Person wage:

07/01/2021

0-1000 Hrs 60%
1001-2000 Hrs 70%
2001-3000 Hrs 80%

SUPPLEMENTAL BENEFITS per hour worked:

0-1000 Hrs $17.25 / PHP $13.29
1001-2000 Hrs 20.13 / " 15.51
2001-3000 Hrs 23.00 / " 18.12

NOTE: PHP is premium hours paid when worked.

Operating Engineer - Survey Crew - Consulting Engineer 12/01/2021

JOB DESCRIPTION Operating Engineer - Survey Crew - Consulting Engineer

DISTRIBUTION 12

12-17D Sur
ENTIRE COUNTIES
Cattaraugus, Chautauqua, Erie, Niagara, Orleans, Wyoming

PARTIAL COUNTIES
Genesee: Only that portion of the county that lies west of a line down the center of Route 98 excluding that area that lies within the City of Batavia.

WAGES
These rates apply to feasibility and preliminary design surveying, line of grade surveying for inspection or supervision of construction when performed under a Consulting Engineer Agreement.

Per hour:
SURVEY CLASSIFICATIONS:

07/01/2021

Party Chief $ 44.09
Instrument Person 41.57
Rod Person 28.75

SUPPLEMENTAL BENEFITS
Per hour worked:

Journeyman $ 28.75

OVERTIME PAY
See (B, E, Q, *X) on OVERTIME PAGE
*Note: $23.75 Only for "ALL" premium hours paid.

HOLIDAY
Paid: See (5, 6) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES
WAGES: 1000 hour terms based on the Percentage of Rod Persons Wage:

07/01/2021

0-1000  60%
1001-2000  70%
2001-3000  80%

SUPPLEMENTAL BENEFITS per hour worked:

0-1000 $ 17.25 / PHP $13.29
1001-2000 20.13 / ” 15.51
2001-3000 23.00 / ” 18.12

NOTE: PHP is premium hours paid when worked.

12-17D Con Eng

Painter

JOB DESCRIPTION Painter

ENTIRE COUNTIES
Allegany, Erie, Genesee, Niagara, Orleans, Wyoming

PARTIAL COUNTIES
Cattaraugus: Entire County except the Townships of Conewango, Leon, Napoli, New Albion, Randolph and South Valley.
Chautauqua: Only the Townships of Awkright, Dunkirk, Hanover, Pomfret, Portland, Sheridan and Vil lenova.
Livingston: Only the Townships of North Dansville, Nunda, Ossian, Portage, Sparta, Spring Water and West Sparta.

WAGES
Per hour: 07/01/2021

Basic Rate (Brush & Roll) $ 28.00
Spray painting, wallcovering 28.00
Abrasive and hydroblasting 28.00
Taping/DryWall Finisher 28.50
Skeleton Steel 28.75

* Skeleton Steel: No floors, walls or ceiling are constructed, including radio and television towers, flagpoles, smokestacks, cranes and the abatement of coatings with lead, asbestos and/or arsenic, etc. All work within the confines of a plant shall be paid the skeleton steel rate (except in-plant tank work (see Tank Rate)).

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day.

NOTE - In order to use the '4 Day/10 Hour Work schedule', as your normal schedule, you must submit an 'Employer Registration for Use of 4 Day/10 Hour Work Schedule,' form PW30.1; and there must be a dispensation of hours in place on the project. If the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.

SUPPLEMENTAL BENEFITS
Per hour:

$ 25.79

OVERTIME PAY
Exterior work only See (B, E4, F*, R) on OVERTIME PAGE.
All other work See (B, F*, R) on OVERTIME PAGE.
* Note - Saturday is payable at straight time if the employee misses work, except where a doctor's or hospital verification of illness is produced Monday through Friday when work was available to the employee.

HOLIDAY
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES
Wages per hour:

Painter/Decorator: 750 hour terms at the following percentage of Journeyman's Basic wage rate:

<table>
<thead>
<tr>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
<th>5th</th>
<th>6th</th>
<th>7th</th>
<th>8th</th>
</tr>
</thead>
<tbody>
<tr>
<td>50%</td>
<td>55%</td>
<td>60%</td>
<td>65%</td>
<td>70%</td>
<td>75%</td>
<td>80%</td>
<td>90%</td>
</tr>
</tbody>
</table>

Taper/Drywall Finisher: 750 hour terms at the following percentage of Journeyman's Taper wage:

<table>
<thead>
<tr>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
<th>5th</th>
<th>6th</th>
</tr>
</thead>
<tbody>
<tr>
<td>50%</td>
<td>55%</td>
<td>60%</td>
<td>65%</td>
<td>75%</td>
<td>85%</td>
</tr>
</tbody>
</table>

Supplemental benefits per hour:

Painter/Decorator and Taper/Drywall Finisher:

<table>
<thead>
<tr>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
<th>5th</th>
<th>6th</th>
<th>7th</th>
<th>8th</th>
</tr>
</thead>
<tbody>
<tr>
<td>$ 2.35</td>
<td>$ 4.35</td>
<td>$ 5.35</td>
<td>$ 5.85</td>
<td>$ 6.35</td>
<td>$ 6.85</td>
<td>$ 7.35</td>
<td>$ 7.60</td>
</tr>
</tbody>
</table>

3-4-Buf, Nia, Olean

Painter

JOB DESCRIPTION Painter

ENTIRE COUNTIES
Alleghany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Cortland, Delaware, Erie, Genesee, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Niagara, Oneida, Onondaga, Ontario, Orleans, Oswego, Otsego, Schuyler, Seneca, St. Lawrence, Steuben, Tioga, Tompkins, Wayne, Wyoming, Yates

WAGES
Per hour: 07/01/2021

Bridge $ 40.00
Tunnel 40.00
Tank* 38.00

For Bridge Painting Contracts, ALL WORKERS on and off the bridge (including Flagmen) are to be paid Painter's Rate; the contract must be ONLY for Bridge Painting.

Tank rate applies to indoor and outdoor tanks, tank towers, standpipes, digesters, waste water treatment tanks, chlorinator tanks, etc. Covers all types of tanks including but not limited to steel tanks, concrete tanks, fiberglass tanks, etc.

Note an additional $1.00 per hour is required when the contracting agency or project specification requires any shift to start prior to 6:00am or after 12:00 noon.

SUPPLEMENTAL BENEFITS
Per hour:

$ 29.20
OVERTIME PAY
Exterior work only See (B, E4, F*, R) on OVERTIME PAGE.
All other work See (B, F*, R) on OVERTIME PAGE.
*Note - Saturday is payable at straight time if the employee misses work, except where a doctor's or hospital verification of illness is produced Monday through Friday when work was available to the employee.

HOLIDAY
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES
Wages per hour:

750 hour terms at the following percentage of Journeyman's wage rate:

<table>
<thead>
<tr>
<th>Term</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>50%</td>
</tr>
<tr>
<td>2nd</td>
<td>55%</td>
</tr>
<tr>
<td>3rd</td>
<td>60%</td>
</tr>
<tr>
<td>4th</td>
<td>65%</td>
</tr>
<tr>
<td>5th</td>
<td>75%</td>
</tr>
<tr>
<td>6th</td>
<td>85%</td>
</tr>
</tbody>
</table>

Supplemental benefits per hour:

<table>
<thead>
<tr>
<th>Term</th>
<th>Supplemental Benefit (12/01/2021)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st &amp; 2nd</td>
<td>$5.50</td>
</tr>
<tr>
<td>3rd &amp; 4th</td>
<td>$5.50</td>
</tr>
<tr>
<td>5th &amp; 6th</td>
<td>$6.50</td>
</tr>
</tbody>
</table>

3-4-Bridge, Tunnel, Tank

Painters - Metal Polisher

JOB DESCRIPTION Painter - Metal Polisher

DISTRICT 8

ENTIRE COUNTIES

WAGES

<table>
<thead>
<tr>
<th>Category</th>
<th>Wage Rate (12/01/2021)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metal Polisher</td>
<td>$37.13</td>
</tr>
<tr>
<td>Metal Polisher*</td>
<td>$38.23</td>
</tr>
<tr>
<td>Metal Polisher**</td>
<td>$41.13</td>
</tr>
</tbody>
</table>

*Note: Applies on New Construction & complete renovation
** Note: Applies when working on scaffolds over 34 feet.

SUPPLEMENTAL BENEFITS

Per Hour: 07/01/2021
Journeyworker: $10.64
All classification $10.64

OVERTIME PAY
See (B, E, P, T) on OVERTIME PAGE

HOLIDAY
Paid: See (5, 6, 11, 16, 25, 26) on HOLIDAY PAGE
Overtime: See (5, 6, 9, 11, 16, 25, 26) on HOLIDAY PAGE

REGISTERED APPRENTICES
Wages per hour:
One (1) year term at the following wage rates:

<table>
<thead>
<tr>
<th>Year</th>
<th>Wage Rate (12/01/2021)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>$16.00</td>
</tr>
<tr>
<td>2nd</td>
<td>17.00</td>
</tr>
<tr>
<td>3rd</td>
<td>18.00</td>
</tr>
<tr>
<td>1st year*</td>
<td>$16.39</td>
</tr>
<tr>
<td>2nd year*</td>
<td>17.44</td>
</tr>
<tr>
<td>3rd year*</td>
<td>18.54</td>
</tr>
<tr>
<td>1st year**</td>
<td>$18.50</td>
</tr>
<tr>
<td>2nd year**</td>
<td>19.50</td>
</tr>
<tr>
<td>3rd year**</td>
<td>20.50</td>
</tr>
</tbody>
</table>
*Note: Applies on New Construction & complete renovation
** Note: Applies when working on scaffolds over 34 feet.

Supplemental benefits:
Per hour:

1st year $ 7.39
2nd year  7.39
3rd year  7.39

**8-A/28A-MP**

**Plumber**

**JOB DESCRIPTION** Plumber

**DISTRIBUTION**

**ENTIRE COUNTIES**
Erie, Niagara, Wyoming

**PARTIAL COUNTIES**
- Allegany: Only the Townships of Allen, Angelica, Belfast, Caneadea, Centerville, Granger, Hume, New Hudson and Rushford
- Chautauqua: Only the Townships of Arkwright, Charlotte, Cherry Creek, Dunkirk, Hanover, Pomfret, Portland, Ripley, Sheridan, Stockton, Villenova, Westfield, City of Dunkirk and Village of Fredonia.
- Genesee: Only the Townships of Alabama, Alexander, Batavia, Darien, Elba, Oakfield, Pembroke and the City of Batavia.
- Orleans: Only the Townships of Ridgeway, Shelby and Yates.

**WAGES**
Per hour: 07/01/2021

Plumber $ 37.15
Steamfitter $ 37.15

Note - Add 10% (ten-percent) to wage when HAZMAT training is required or when OSHA compliant respirator protection is required.

**SUPPLEMENTAL BENEFITS**
Per hour: $ 27.51

Note - $4.38 of this amount must be paid at the same premium as the wage.

**OVERTIME PAY**
See (**B, **E, Q) on OVERTIME PAGE
* Double time after 11 hours per day on Weekdays.
** Double time after 10 hours per day on Saturday.

**HOLIDAY**
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6, 16) on HOLIDAY PAGE

**REGISTERED APPRENTICES**
Wages per hour:

One year terms at the following percentage of Journeymen's wage:

<table>
<thead>
<tr>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
<th>5th</th>
</tr>
</thead>
<tbody>
<tr>
<td>45%</td>
<td>55%</td>
<td>65%</td>
<td>75%</td>
<td>90%</td>
</tr>
</tbody>
</table>

Note - Add 10% (ten-percent) to wage when HAZMAT training is required or when OSHA compliant respirator protection is required.

Supplemental benefits per hour:

$ 22.82

Note - $4.38 of this amount must be paid at the same premium as the wage.

**Roofer**

**JOB DESCRIPTION** Roofer

**DISTRIBUTION**

**ENTIRE COUNTIES**
Erie, Genesee, Niagara, Orleans, Wyoming

**WAGES**
Per hour: 07/01/2021

---

3-22-Buffalo, Niagara
Asbestos Removal $33.96
Slate, Tile 31.11
Precast tile / slabs 31.11
Crete / gypsum planks 31.11
Damp and waterproofer 30.96
Composition, sprayers, 30.96
Asphalt mastic, 30.96
Sleep roofers 30.96

When shift work is mandated either in the job specification or by the contracting agency the following premiums apply:
15.0% for work from 4:30PM - 1:00AM or second shift
20.0% for work from 12:30AM - 9:00AM or third shift

SUPPLEMENTAL BENEFITS
Per hour:
$23.01

OVERTIME PAY
See (B, *E, **E2, Q) on OVERTIME PAGE
* and ** Double time after 8 hours on Saturday.

HOLIDAY
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES
Wages per hour:

<table>
<thead>
<tr>
<th>Hours</th>
<th>Wage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 499</td>
<td>$8.21</td>
</tr>
<tr>
<td>500 to 999</td>
<td>$12.34</td>
</tr>
<tr>
<td>1000 to 1499</td>
<td>$12.54</td>
</tr>
<tr>
<td>1500 to 1999</td>
<td>$20.32</td>
</tr>
<tr>
<td>2000 to 2499</td>
<td>$20.99</td>
</tr>
<tr>
<td>2500 to 2999</td>
<td>$21.66</td>
</tr>
<tr>
<td>3000 to 3499</td>
<td>$22.34</td>
</tr>
</tbody>
</table>

Sheetmetal Worker 12/01/2021

JOB DESCRIPTION  Sheetmetal Worker

ENTIRE COUNTIES
Erie, Genesee, Niagara, Orleans, Wyoming

WAGES
Per hour: 07/01/2021
Sheet Metal Worker $35.00

Additional $0.50 per hour for work more than 30" above floor on boatswain chair.
Additional $1.00 per hour for work in "Hot" areas of atomic laboratories, atomic plants, or any premises where radio-active materials are stored or handled and personal protective equipment is required.
Additional $1.00 per hour for work when required to have 40-hour HAZMAT training or the use of OSHA compliant respirator is required.

When shift work is mandated either in the job specification or by the contracting agency the following premiums apply:
Shift Premium per hour:
Second Shift $3.25
Third Shift $5.00

SUPPLEMENTAL BENEFITS
Per hour:
$27.47*

* Note - $17.57 of this amount must be paid at the same premium as the wages per overtime hours.

OVERTIME PAY
See (B, E, E2, Q) on OVERTIME PAGE

HOLIDAY
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6, 16) on HOLIDAY PAGE

REGISTERED APPRENTICES
Wages per hour:
One year terms at the following wage:

<table>
<thead>
<tr>
<th>Term</th>
<th>Wage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>$15.75</td>
</tr>
<tr>
<td>2nd</td>
<td>$20.60</td>
</tr>
<tr>
<td>3rd</td>
<td>$22.04</td>
</tr>
<tr>
<td>4th</td>
<td>$26.36</td>
</tr>
<tr>
<td>5th</td>
<td>$29.24</td>
</tr>
</tbody>
</table>

Supplemental benefits per hour:

<table>
<thead>
<tr>
<th>Term</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>$15.94</td>
</tr>
<tr>
<td>2nd</td>
<td>$20.60</td>
</tr>
<tr>
<td>3rd</td>
<td>$22.04</td>
</tr>
<tr>
<td>4th</td>
<td>$26.36</td>
</tr>
<tr>
<td>5th</td>
<td>$29.24</td>
</tr>
</tbody>
</table>

When shift work is mandated either in the job specification or by the contracting agency the following premiums apply:

Second Shift

<table>
<thead>
<tr>
<th>Term</th>
<th>Premium</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>$1.46</td>
</tr>
<tr>
<td>2nd</td>
<td>$1.63</td>
</tr>
<tr>
<td>3rd</td>
<td>$1.79</td>
</tr>
<tr>
<td>4th</td>
<td>$2.28</td>
</tr>
<tr>
<td>5th</td>
<td>$2.60</td>
</tr>
</tbody>
</table>

Third Shift

<table>
<thead>
<tr>
<th>Term</th>
<th>Premium</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>$2.25</td>
</tr>
<tr>
<td>2nd</td>
<td>$2.50</td>
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<tr>
<td>3rd</td>
<td>$2.75</td>
</tr>
<tr>
<td>4th</td>
<td>$3.50</td>
</tr>
<tr>
<td>5th</td>
<td>$4.00</td>
</tr>
</tbody>
</table>

Sprinkler Fitter 12/01/2021

JOB DESCRIPTION Sprinkler Fitter

ENTIRE COUNTIES

WAGES
Per hour 07/01/2021

<table>
<thead>
<tr>
<th>Wage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sprinkler Fitter</td>
</tr>
</tbody>
</table>

SUPPLEMENTAL BENEFITS
Per hour

<table>
<thead>
<tr>
<th>Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Journeyperson</td>
</tr>
</tbody>
</table>

OVERTIME PAY
See (B, E, Q) on OVERTIME PAGE

HOLIDAY
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

Note: When a holiday falls on Sunday, the following Monday shall be considered a holiday and all work performed on either day shall be at the double time rate. When a holiday falls on Saturday, the preceding Friday shall be considered a holiday and all work performed on either day shall be at the double time rate.

REGISTERED APPRENTICES
Wages per hour

<table>
<thead>
<tr>
<th>Term</th>
<th>Wage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>$17.48</td>
</tr>
<tr>
<td>2nd</td>
<td>$19.43</td>
</tr>
<tr>
<td>3rd</td>
<td>$21.12</td>
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<tr>
<td>4th</td>
<td>$23.06</td>
</tr>
<tr>
<td>5th</td>
<td>$25.00</td>
</tr>
<tr>
<td>6th</td>
<td>$26.95</td>
</tr>
<tr>
<td>7th</td>
<td>$28.89</td>
</tr>
<tr>
<td>8th</td>
<td>$30.83</td>
</tr>
<tr>
<td>9th</td>
<td>$32.77</td>
</tr>
<tr>
<td>10th</td>
<td>$34.72</td>
</tr>
</tbody>
</table>
Supplemental Benefits per hour

<table>
<thead>
<tr>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
<th>5th</th>
<th>6th</th>
<th>7th</th>
<th>8th</th>
<th>9th</th>
<th>10th</th>
</tr>
</thead>
</table>

Teamster - Building / Heavy&Highway 12/01/2021

JOB DESCRIPTION  Teamster - Building / Heavy&Highway

ENTIRE COUNTIES  Erie, Niagara

PARTIAL COUNTIES
Genesee: Only in the Townships of Alabama, Darien and Pembroke.
Orleans: Only the Townships of Ridgeway, Shelby and Yates.
Wyoming: Only in the Townships of Arcade, Bennington, Java and Sheldon.

WAGES
GROUP 1: Warehousemen, Yardmen, Truck Helpers, Picksups, Panel Trucks, Flatboy Material Trucks (straight jobs), Single Axle Dump Trucks, Dumpsters, Material Checkers and Receivers, Greasers, Truck Tiremen, Mechanics Helpers and Parts Chasers.

GROUP 2: Tandems and Batch Trucks, Mechanics, Dispatcher.

GROUP 3: Semi-Trailers, Low-Boy Trucks, Asphalt Distributor Trucks and Agitator, Mixer Trucks and dumpcrete type vehicles, Truck Mechanic, Fuel Trucks

GROUP 4: Specialized Earth Moving Equipment, Euclid type, or similar off-highway, where not self-loading, Straddle (Ross) Carrier, and self-contained concrete mobile truck.


Per hour: 07/01/2021
All GROUPS  $ 41.22
Add $2.00 when required to use personal protection when performing hazardous waste removal work.
An additional $3.00 per hour is required when a single irregular work shift starting any time from 5:00PM to 1:00AM is mandated either in the job specification or by the contracting agency.

SUPPLEMENTAL BENEFITS
Per hour:  
$ 15.36*
*Note - Only $ 7.16 per hour needs to be paid for overtime hours.

OVERTIME PAY
See (B, G, P) on OVERTIME PAGE

HOLIDAY
Paid: See (5, 6) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

Teamster - Building / Heavy&Highway 12/01/2021

JOB DESCRIPTION  Teamster - Building / Heavy&Highway

ENTIRE COUNTIES  Erie, Niagara

WAGES
Per hour: 07/01/2021
Dump Truck Operator*  $ 24.25

*Does not include Single Axle Dump Trucks (see Teamster Group 1).
*Does not include Off-highway Dump Trucks (see Teamster Groups 2-5).

SUPPLEMENTAL BENEFITS
Per hour:  
$ 1.73

OVERTIME PAY
See (B, B2, Q) on OVERTIME PAGE

HOLIDAY
Paid: See (5, 6) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE
Welder

JOB DESCRIPTION  Welder

ENTIRE COUNTIES

WAGES
Per hour 07/01/2021

Welder: To be paid the same rate of the mechanic performing the work.*

*EXCEPTION: If a specific welder certification is required, then the ‘Certified Welder’ rate in that trade tag will be paid.

OVERTIME PAY

HOLIDAY 1-As Per Trade
Overtime Codes

Following is an explanation of the code(s) listed in the OVERTIME section of each classification contained in the attached schedule. Additional requirements may also be listed in the HOLIDAY section.

NOTE: Supplemental Benefits are 'Per hour worked' (for each hour worked) unless otherwise noted

( AA ) Time and one half of the hourly rate after 7 and one half hours per day
( A ) Time and one half of the hourly rate after 7 hours per day
( B ) Time and one half of the hourly rate after 8 hours per day
( B1 ) Time and one half of the hourly rate for the 9th & 10th hours week days and the 1st 8 hours on Saturday. Double the hourly rate for all additional hours
( B2 ) Time and one half of the hourly rate after 40 hours per week
( C ) Double the hourly rate after 7 hours per day
( C1 ) Double the hourly rate after 7 and one half hours per day
( D ) Double the hourly rate after 8 hours per day
( D1 ) Double the hourly rate after 9 hours per day
( E ) Time and one half of the hourly rate on Saturday
( E1 ) Time and one half 1st 4 hours on Saturday; Double the hourly rate all additional Saturday hours
( E2 ) Saturday may be used as a make-up day at straight time when a day is lost during that week due to inclement weather
( E3 ) Between November 1st and March 3rd Saturday may be used as a make-up day at straight time when a day is lost during that week due to inclement weather, provided a given employee has worked between 16 and 32 hours that week
( E4 ) Saturday and Sunday may be used as a make-up day at straight time when a day is lost during that week due to inclement weather
( E5 ) Double time after 8 hours on Saturdays
( F ) Time and one half of the hourly rate on Saturday and Sunday
( G ) Time and one half of the hourly rate on Saturday and Holidays
( H ) Time and one half of the hourly rate on Saturday, Sunday, and Holidays
( I ) Time and one half of the hourly rate on Sunday
( J ) Time and one half of the hourly rate on Sunday and Holidays
( K ) Time and one half of the hourly rate on Holidays
( L ) Double the hourly rate on Saturday
( M ) Double the hourly rate on Saturday and Sunday
( N ) Double the hourly rate on Saturday and Holidays
( O ) Double the hourly rate on Saturday, Sunday, and Holidays
( P ) Double the hourly rate on Sunday
( Q ) Double the hourly rate on Sunday and Holidays
( R ) Double the hourly rate on Holidays
( S ) Two and one half times the hourly rate for Holidays
(S1) Two and one half times the hourly rate the first 8 hours on Sunday or Holidays One and one half times the hourly rate all additional hours.

(T) Triple the hourly rate for Holidays

(U) Four times the hourly rate for Holidays

(V) Including benefits at SAME PREMIUM as shown for overtime

(W) Time and one half for benefits on all overtime hours.

(X) Benefits payable on Paid Holiday at straight time. If worked, additional benefit amount will be required for worked hours. (Refer to other codes listed.)
## Holiday Codes

### PAID Holidays:

Paid Holidays are days for which an eligible employee receives a regular day's pay, but is not required to perform work. If an employee works on a day listed as a paid holiday, this remuneration is in addition to payment of the required prevailing rate for the work actually performed.

### OVERTIME Holiday Pay:

Overtime holiday pay is the premium pay that is required for work performed on specified holidays. It is only required where the employee actually performs work on such holidays. The applicable holidays are listed under HOLIDAYS: OVERTIME. The required rate of pay for these covered holidays can be found in the OVERTIME PAY section listings for each classification.

Following is an explanation of the code(s) listed in the HOLIDAY section of each classification contained in the attached schedule. The Holidays as listed below are to be paid at the wage rates at which the employee is normally classified.

<table>
<thead>
<tr>
<th>Code</th>
<th>Holiday Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>None</td>
</tr>
<tr>
<td>2</td>
<td>Labor Day</td>
</tr>
<tr>
<td>3</td>
<td>Memorial Day and Labor Day</td>
</tr>
<tr>
<td>4</td>
<td>Memorial Day and July 4th</td>
</tr>
<tr>
<td>5</td>
<td>Memorial Day, July 4th, and Labor Day</td>
</tr>
<tr>
<td>6</td>
<td>New Year's, Thanksgiving, and Christmas</td>
</tr>
<tr>
<td>7</td>
<td>Lincoln's Birthday, Washington's Birthday, and Veterans Day</td>
</tr>
<tr>
<td>8</td>
<td>Good Friday</td>
</tr>
<tr>
<td>9</td>
<td>Lincoln's Birthday</td>
</tr>
<tr>
<td>10</td>
<td>Washington's Birthday</td>
</tr>
<tr>
<td>11</td>
<td>Columbus Day</td>
</tr>
<tr>
<td>12</td>
<td>Election Day</td>
</tr>
<tr>
<td>13</td>
<td>Presidential Election Day</td>
</tr>
<tr>
<td>14</td>
<td>1/2 Day on Presidential Election Day</td>
</tr>
<tr>
<td>15</td>
<td>Veterans Day</td>
</tr>
<tr>
<td>16</td>
<td>Day after Thanksgiving</td>
</tr>
<tr>
<td>17</td>
<td>July 4th</td>
</tr>
<tr>
<td>18</td>
<td>1/2 Day before Christmas</td>
</tr>
<tr>
<td>19</td>
<td>1/2 Day before New Year's</td>
</tr>
<tr>
<td>20</td>
<td>Thanksgiving</td>
</tr>
<tr>
<td>21</td>
<td>New Year's Day</td>
</tr>
<tr>
<td>22</td>
<td>Christmas</td>
</tr>
<tr>
<td>23</td>
<td>Day before Christmas</td>
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<tr>
<td>24</td>
<td>Day before New Year's</td>
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<td>25</td>
<td>Presidents' Day</td>
</tr>
<tr>
<td>26</td>
<td>Martin Luther King, Jr. Day</td>
</tr>
<tr>
<td>27</td>
<td>Memorial Day</td>
</tr>
<tr>
<td>28</td>
<td>Easter Sunday</td>
</tr>
</tbody>
</table>
(29) Juneteenth
REQUEST FOR WAGE AND SUPPLEMENT INFORMATION

As Required by Articles 8 and 9 of the NYS Labor Law

Fax (518) 485-1870 or mail this form for new schedules or for determination for additional occupations.

This Form Must Be Typed

Submitted By: (Check Only One) ☐ Contracting Agency ☐ Architect or Engineering Firm ☐ Public Work District Office Date: __________

A. Public Work Contract to be let by: (Enter Data Pertaining to Contracting/Public Agency)

<table>
<thead>
<tr>
<th>1. Name and complete address</th>
<th>2. NY State Units (see Item 5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ (Check if new or change)</td>
<td>☐ 07 City</td>
</tr>
<tr>
<td>Telephone: ( )</td>
<td>☐ 08 Local School District</td>
</tr>
<tr>
<td>Fax: ( )</td>
<td>☐ 09 Special Local District, i.e.,</td>
</tr>
<tr>
<td>E-Mail:</td>
<td>Fire, Sewer, Water District</td>
</tr>
<tr>
<td></td>
<td>☐ 10 Village</td>
</tr>
<tr>
<td></td>
<td>☐ 11 Town</td>
</tr>
<tr>
<td></td>
<td>☐ 12 County</td>
</tr>
<tr>
<td></td>
<td>☐ 13 Other Non-N.Y. State</td>
</tr>
<tr>
<td></td>
<td>☐ 06 OTHER N.Y. STATE UNIT</td>
</tr>
<tr>
<td></td>
<td>☐ 01 DOT</td>
</tr>
<tr>
<td></td>
<td>☐ 02 OGS</td>
</tr>
<tr>
<td></td>
<td>☐ 03 Dormitory Authority</td>
</tr>
<tr>
<td></td>
<td>☐ 04 State University Construction Fund</td>
</tr>
<tr>
<td></td>
<td>☐ 05 Mental Hygiene Facilities Corp.</td>
</tr>
<tr>
<td></td>
<td>☐ 06 OTHER N.Y. STATE UNIT</td>
</tr>
</tbody>
</table>

3. SEND REPLY TO: ☐ check if new or change) Name and complete address:

<table>
<thead>
<tr>
<th>Telephone: ( )</th>
<th>Fax: ( )</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-Mail:</td>
<td></td>
</tr>
</tbody>
</table>

4. SERVICE REQUIRED: Check appropriate box and provide project information.

- ☐ New Schedule of Wages and Supplements.
- ☐ APPROXIMATE BID DATE: [ ]
- ☐ Additional Occupation and/or Redetermination

B. PROJECT PARTICULARS

<table>
<thead>
<tr>
<th>5. Project Title</th>
<th>6. Location of Project:</th>
</tr>
</thead>
<tbody>
<tr>
<td>__________________</td>
<td>________________________</td>
</tr>
<tr>
<td>Description of Work</td>
<td>Location on Site</td>
</tr>
<tr>
<td>__________________</td>
<td>________________________</td>
</tr>
<tr>
<td>____________</td>
<td>Route No/Street Address</td>
</tr>
<tr>
<td>Contract Identification Number</td>
<td>Village or City</td>
</tr>
<tr>
<td>__________________</td>
<td>________________________</td>
</tr>
<tr>
<td>Note: For NYS units, the OSC Contract No.</td>
<td>Town</td>
</tr>
<tr>
<td>__________________</td>
<td>________________________</td>
</tr>
<tr>
<td>__________________</td>
<td>County</td>
</tr>
</tbody>
</table>

7. Nature of Project - Check One:

- ☐ 1. New Building
- ☐ 2. Addition to Existing Structure
- ☐ 3. Heavy and Highway Construction (New and Repair)
- ☐ 4. New Sewer or Waterline
- ☐ 5. Other New Construction (Explain)
- ☐ 6. Other Reconstruction, Maintenance, Repair or Alteration
- ☐ 7. Demolition
- ☐ 8. Building Service Contract

8. OCCUPATION FOR PROJECT:

- ☐ Guards, Watchmen
- ☐ Janitors, Porters, Cleaners, Elevator Operators
- ☐ Moving furniture and equipment
- ☐ Trash and refuse removal
- ☐ Window cleaners
- ☐ Other (Describe)

9. Has this project been reviewed for compliance with the Wicks Law involving separate bidding? YES ☐ NO ☐

10. Name and Title of Requester

| __________________ |
| Signature |

SEE PAGE TWO FOR LAWS RELATING TO PUBLIC WORK CONTRACTS

PW-39 (04.11)
Under Article 8 and Article 9 of the NYS Labor Law, a contractor, sub-contractor and/or its successor shall be debarred and ineligible to submit a bid on or be awarded any public work or public building service contract/sub-contract with the state, any municipal corporation or public body for a period of five (5) years from the date of debarment when:

- Two (2) final determinations have been rendered within any consecutive six-year (6) period determining that such contractor, sub-contractor and/or its successor has WILLFULLY failed to pay the prevailing wage and/or supplements;

- One (1) final determination involves falsification of payroll records or the kickback of wages and/or supplements.

The agency issuing the determination and providing the information, is denoted under the heading ‘Fiscal Officer’. DOL = New York State Department of Labor; NYC = New York City Comptroller’s Office; AG = New York State Attorney General’s Office; DA = County District Attorney’s Office.

Debarment Database: To search for contractors, sub-contractors and/or their successors debarred from bidding or being awarded any public work contract or subcontract under NYS Labor Law Articles 8 and 9, or under NYS Workers' Compensation Law Section 141-b, access the database at this link: https://applications.labor.ny.gov/EDList/searchPage.do

For inquiries where WCB is listed as the "Agency", please call 1-866-546-9322
<table>
<thead>
<tr>
<th>AGENCY</th>
<th>Fiscal Officer</th>
<th>FEIN</th>
<th>EMPLOYER NAME</th>
<th>ADDRESS</th>
<th>DEBARMENT START DATE</th>
<th>DEBARMENT END DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOL</td>
<td>DOL</td>
<td>*****5754</td>
<td>0369 CONTRACTORS, LLC</td>
<td>515 WEST AVE UNIT PH 13NORWALK CT</td>
<td>05/12/2021</td>
<td>05/12/2026</td>
</tr>
<tr>
<td>DOL</td>
<td>NYC</td>
<td>*****9839</td>
<td>A.J.S. PROJECT MANAGEMENT, INC.</td>
<td>149 FIFTH AVENUE NEW YORK NY 10010</td>
<td>12/29/2016</td>
<td>12/29/2021</td>
</tr>
<tr>
<td>DOL</td>
<td>DOL</td>
<td>*****4018</td>
<td>ADIRONDAK BUILDING RESTORATION INC.</td>
<td>4156 WILSON ROAD EAST TABERG NY 13471</td>
<td>03/26/2019</td>
<td>03/26/2024</td>
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<tr>
<td>DOL</td>
<td>AG</td>
<td>*****1812</td>
<td>ADVANCED BUILDERS &amp; LAND DEVELOPMENT, INC.</td>
<td>400 OSER AVE #2300HAUPAUGE NY 11788</td>
<td>09/11/2019</td>
<td>09/11/2024</td>
</tr>
<tr>
<td>DOL</td>
<td>DOL</td>
<td>*****1687</td>
<td>ADVANCED SAFETY SPRINKLER INC</td>
<td>261 MILL ROAD P.O BOX 296EAST AURORA NY 14052</td>
<td>05/29/2019</td>
<td>05/29/2024</td>
</tr>
<tr>
<td>DOL</td>
<td>NYC</td>
<td>*****6775</td>
<td>ADVENTURE MASONRY CORP.</td>
<td>1535 RICHMOND AVENUE STATEN ISLAND NY 10314</td>
<td>12/13/2017</td>
<td>12/13/2022</td>
</tr>
<tr>
<td>DOL</td>
<td>NYC</td>
<td>A. J. S.</td>
<td>MANAGEMENT, INC.</td>
<td>2306 61ST ST BROOKLYN NY 11204</td>
<td>12/15/2016</td>
<td>12/15/2021</td>
</tr>
<tr>
<td>DOL</td>
<td>NYC</td>
<td>AMJAD PARVEZ</td>
<td>401 HANOVER AVENUE STATEN ISLAND NY 10304</td>
<td>01/11/2021</td>
<td>01/11/2026</td>
<td></td>
</tr>
<tr>
<td>DOL</td>
<td>DOL</td>
<td>ANGELO F COKER</td>
<td>2610 SOUTH SALINA STREET SUITE 14SYRACUSE NY 13205</td>
<td>09/17/2020</td>
<td>09/17/2025</td>
<td></td>
</tr>
<tr>
<td>DOL</td>
<td>DOL</td>
<td>ANGELO F COKER</td>
<td>2610 SOUTH SALINA STREET SUITE 14SYRACUSE NY 13205</td>
<td>12/04/2018</td>
<td>12/04/2023</td>
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<tr>
<td>DOL</td>
<td>DOL</td>
<td>ANGELO GARCIA</td>
<td>515 WEST AVE UNIT PH 13NORWALK CT</td>
<td>05/12/2021</td>
<td>05/12/2026</td>
<td></td>
</tr>
<tr>
<td>DOL</td>
<td>DOL</td>
<td>ANITA SALERNO</td>
<td>158 SOLAR ST SYRACUSE NY 13204</td>
<td>01/07/2019</td>
<td>01/07/2024</td>
<td></td>
</tr>
<tr>
<td>DOL</td>
<td>NYC</td>
<td>ANTHONY J SCAFANI</td>
<td>149 FIFTH AVE NEW YORK NY 10010</td>
<td>12/29/2016</td>
<td>12/29/2021</td>
<td></td>
</tr>
<tr>
<td>DOL</td>
<td>DOL</td>
<td>ANTHONY PERGOLA</td>
<td>3 WEST MAIN ST/SUITE 208 ELMSFORD NY 10323</td>
<td>01/23/2017</td>
<td>01/23/2022</td>
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<tr>
<td>DOL</td>
<td>DOL</td>
<td>ANTONIO ESTIVEZ</td>
<td>442 ARMONK RD MOUNT KISCO NY 10549</td>
<td>06/12/2018</td>
<td>06/12/2023</td>
<td></td>
</tr>
<tr>
<td>DOL</td>
<td>DOL</td>
<td>ARNOLD A. PAOLINI</td>
<td>1250 BROADWAY ST BUFFALO NY 14212</td>
<td>02/03/2020</td>
<td>02/03/2025</td>
<td></td>
</tr>
<tr>
<td>DOL</td>
<td>NYC</td>
<td>ARSHAD MEHMOOD</td>
<td>168-42 88TH AVENUE JAMAICA NY 11432</td>
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