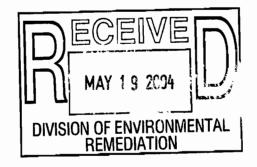
K. Eastman 05/25/04

Design Report

- Bid Documents & Specifications -

Brownfield Environmental Restoration Project (Project No. B00053-4)

Lot No. 6 - Riverside Technology Park City of Schenectady, New York



Prepared For:

City of Schenectady Industrial Development Agency F.O. Box 68 Schenectady, NY 12301

Prepared By.

Fiolt Consulting 620 Washington Avenue Rensselaer, NY 12144

April, 2004

Design Report

- Bid Documents & Specifications -

Brownfield Environmental Restoration Project (Project No. B00053-4)

Lot No. 6 - Riverside Technology Park City of Schenectady, New York

Prepared For:

City of Schenectady Industrial Development Agency P.O. Box 68 Schenectady, NY 12301

Prepared By:

Holt Consulting 620 Washington Avenue Rensselaer, NY 12144

April, 2004



RIVERSIDE LOT 6 BROWNFIELDS RESTORATION CONTRACT DOCUMENTS

TABLE OF CONTENTS

BID DOCUMENTS	Section / Page
NOTICE TO BIDDERS	NTB-1
INSTRUCTIONS TO BIDDERS	
INFORMATION AVAILABLE TO BIDDERS	IAB-1
BID DOCUMENTS	
Bid Form	BF- 1-5
Certified Copy of Resolution of Board of Directors	
Non-Collusion Form	
Bid Bond	BB- 1-2
Bidder Qualification Questionnaire	
AGREEMENT	A- 1-5
CERTIFICATE OF ATTORNEY	CA-1
AFFIDAVIT- WORKERS COMPENSATION	WC-1
PERFORMANCE BOND	
PAYMENT BOND	
GENERAL CONDITIONS	GC - 1-18
Article 1 – Definitions	GC - 1
Article 2 – Preliminary Matters	GC - 2
Article 3 – Contract Documents	GC - 3
Article 4 – Availability of Lands; Physical Conditions; Reference Points	
Article 5 – Bonds and Insurance	
Article 6 – Contractor's Responsibilities	
Article 7 - Work by Others	
Article 8 – Owner's Responsibilities	
Article 9 – Engineer's Status During Construction	
Article 10 – Changes in the Work	
Article 11 - Change of Contract Price	
Article 12 – Change of the Contract Time	
Article 13 – Warranty and Guarantee	
Article 14 – Payments to Contractor and Completion	
Article 15 – Suspension of Work and Termination	
Article 16 – Miscellaneous	
SUPPLEMENTARY CONDITIONS	SC - 1-10
Article 1 – Definitions	SC - 1
Article 2 – Preliminary Matters	
Article 3 – Contract Documents	
Article 4 – Availability of Lands; Physical Conditions; Reference Points	SC - 2
Article 5 – Bonds and Insurance	
Article 6 – Contractor's Responsibilities; Subcontracts	
Article 9 – Engineer's Status During Construction	
Article 11 – Change of Contract Price	
Article 14 – Payments to Contractor and Completion	
Article 17 – Labor Records and Schedules	
Article 18 - Non-Discrimination in Employment	SC - 6
Article 19 – Provisions for Public Works Under New York State Law	SC - 8
Article 20 – NYS DEC Standard Conditions for Construction Contracts	
Article 21 - Provisions Required by Law Deemed Inserted	
Article 22 – Protection of Lives and Health	
Article 23 – Other Prohibited Interests, Conflicts of Interest	
Article 24 – NYS DEC Mandatory Contract Provisions	
Article 25 – NYS DEC Contract Review and Approval	
Article 26 – City of Schenectady Mandatory Contract Provisions	

CONTRACT DOCUMENTS TABLE OF CONTENTS

DIVISION 1 - GENERA	<u>L REQUIREMENTS</u>	<u>Section</u>	/ Page
Section 01010	Summary of Work	.01010,	pp 1- 6
Part 1	General	.01010,	p 1
Sub-part 1.3	Site Description and History		
Sub-part 1.4	Project Description - Summary of Proposed Work		
Part 3	Execution	.01010,	pp 4- 6
Sub-part 3.1	Spill Control		
Sub-part 3.2	Environmental Protection	.01010,	p 4
Sub-part 3.3	Protection of Water Resources		
Sub-part 3.4	Surface Water Management		
Sub-part 3.5	Contractor Quality Control		
Sub-part 3.6	Fire Prevention and Control	.01010,	p 6
Section 01026	Unit Prices & Measurement for Payment		
Section 01027	Applications for Payment		
Section 01040	Project Coordination		
Section 01050	Field Engineering		
Section 01085	Subsurface Structures and Utilities		
Section 01095	Reference Standards and Definitions		
Section 01300	Submittals	01300,	pp 1- 9
Part 1	General		
Sub-part 1.5 A	Work Progress/Process Plans – 5-Day Submittals		
Sub-part 1.5 B	Work Plan		
Sub-part 1.5 C	Sampling and Analysis Plan	01300,	p 5
Section 01310	Health and Safety Plan		
Section 01310A	Health and Safety Plan - Minimum Requirements	01310A,	pp 1- 3
Sub-part 1.1	Description	.01310A,	, p1
Sub-part 1.2	Basis		
Sub-part 1.3	Health and Safety Definitions		
Sub-part 1.4	Responsibilities		
Sub-part 1.5	Health and Safety Plan		
Sub-part 1.6	Health and Safety Organization		
Sub-part 1.7	Site Description and Hazard Assessment		
Sub-part 1.8	Training		
Sub-part 1.9	Medical Surveillance		•
Sub-part 1.10	Site Control	01310A,	рв
Sub-part 1.11	Standard Operating Safety	012104	n 10
Sub-part 1.12	Procedures, Engineering Controls Personal Protective Equipment		
Sub-part 1.12	Personal Hygiene and Decontamination		
Sub-part 1.15	Equipment Decontamination		
Sub-part 1.14	Emergency Equipment and First Aid Requirements	01310A	n 26
Sub-part 1.17	Emergency Responses/Contingency Plan	01310,4	P 20
Sub part 1.27	and Procedures	01310A,	p 27
Sub-part 1.18	Heat Stress Monitoring		
Sub-part 1.19	Logs, Reports and Record Keeping		
Sub-part 1.20	Posting Regulations		
Sub-part 1.21	Community Protection	U1310A,	p 34
Section 01400	Quality Control Services	01400.	DD 1- 4
Section 01500	Temporary Facilities and Equipment		
Section 01561	Nuisance Control		
Section 01700	Project Closeout		

Table of Contents 2

CONTRACT DOCUMENTS TABLE OF CONTENTS

DIVISION 2 - S	<u>SITEWORK</u>		
		Section	<u>/ Page</u>
Section 02000	Work Included	.02000,	p 1
Section 02011	Mobilization and Demobilization, Site Preparation and Site Facilities	.02011,	pp 1- 5
Section 02110	Clearing	.02110,	pp 1- 2
Section 02120	Monitoring Well Decommissioning	.02120,	pp 1- 2
Section 02200	Earthwork	.02200,	pp 1- 2
Section 02220	Excavation Dewatering	.02220,	pp 1- 3
Section 02221	Trenching, Pipe Backfilling and Compaction	.02221,	pp 1- 4
Section 02225	Water Pre-Treatment	.02225,	pp 1- 3
Section 02504	Excavation and Disposal of Contaminated Soil	.025 04 ,	pp 1- 3
Section 02506	Sampling and Analysis.	.02506,	pp 1- 6
Section 02507	Materials Handling	.02507,	pp 1- 6
Section 02511	Construction Water Management	.02511,	pp 1- 3
Section 02931	Site Seeding	.02931,	pp 1- 2
ATTACHMENTS			
NYSDEC Con NYSDOH Cor	struction Contract "Attachment A"struction Contract "Attachment B"mmunity Air Monitoring Plan	. Attachn . Attachn	nent B nent C

NOTICE TO BIDDERS

RIVERSIDE LOT 6 BROWNFIELDS REMEDIATION SCHENECTADY. NEW YORK

Sealed bids will be received by the City of Schenectady Industrial Development Agency at the Schenectady Metroplex offices located at 433 State Street-4th Floor, Schenectady, New York 12301 until **4:00 p.m. on June 16, 2004**, at which time they will be publicly opened and read. The work site is located at Lot No. 6 on Technology Drive in the Riverside Technology Park in Schenectady, New York.

The Work includes providing all labor, materials, machinery, tools, equipment and other means of construction necessary and incidental to the completion the work shown on the plans and described in these specifications including, but not necessarily limited to the following: Site mobilization and preparation including work areas and drainage and erosion controls; decommissioning and removal of eight (8) existing ground water monitoring wells; excavating and disposing of approximately 6,200 tons (3,675 cubic yards) of petroleum-contaminated soil; dewatering of the anticipated excavation area with collection and disposal of the excavation water to the City of Schenectady sewer system, possibly with pre-treatment by carbon filtration; placing and compacting earth fill materials in the completed excavation with site restoration to pre-existing grades; performing QA/QC soil and water testing, and other related work.

Drawings and Specifications may be examined at the offices of the City of Schenectady IDA at 433 State Street-4th Floor (Metroplex office), Schenectady, New York 12306. Complete sets of the drawings, specifications and bid forms may be obtained from Holt Consulting after May 19, 2004, in accordance with the Instructions To Bidders; at a cost of \$65.00 for each complete set of contract documents to cover printing costs. Checks shall be made payable to Holt Consulting and are not refundable.

All bids must be made on the official Bid Form or an exact copy by reproduction thereof and enclosed in a sealed envelope. This is a unit price bid. No Bidder may withdraw his bid within sixty five (65) calendar days after the actual date of the opening thereof. Each bid must be accompanied by a bid security in the amount of five percent of the base bid in accordance with the Instructions To Bidders.

The successful Bidder will be required to furnish construction performance and payment bonds in the full amount of the contract price, and a bid bond in an amount 5% of the contract price. The successful bidder will be required to comply with all provisions of the Federal Government Equal Employment Opportunity clauses issued by the Secretary of Labor on May 21, 1968 and published in the Federal Register (41CFR Part 60-1, 33 F.2 7804).

Owner reserves the right to reject any and all Bids, to waive any and all informalities and the right to disregard all nonconforming, non-responsive or Conditional Bids. Owner reserves the right to withhold award of any Contract to complete the Work unless and until issuance by New York State of a State Assistance Contract and encumbering of State funds to reimburse Owner for costs incurred in completion of the Work. A <u>mandatory</u> pre-bid meeting will be held at **10:30 a.m. on June 3, 2004**, at the Riverside Lot 6 site.

OWNER'S CONTACT

Mr. James Callander City of Schenectady IDA Phone: (518) 377-1109

OWNER and MAILING ADDRESS

City of Schenectady IDA Michael J. Petta, Board Chairman P.O. Box 68 Schenectady, New York 12301

ENGINEER:

HOLT CONSULTING
620 Washington Avenue
Rensselaer, New York 12144
Phone (518) 432-9021 Fax (518) 432-4589

INSTRUCTIONS TO BIDDERS

PROJECT IDENTIFICATION:

a) Project Title:

Riverside Lot 6 Brownfields Remediation

b) Owner:

City of Schenectady IDA Michael J. Petta, Board Chairman 433 State Street, P.O. Box 68 Schenectady, New York 12301 Phone: (518) 377-1109

c) Engineer:

HOLT CONSULTING, 620 Washington Avenue, Rensselaer, New York 12144 Phone: (518) 432-9021 Fax: (518) 426-4589

INDEX

Section	<u>Paragraph</u>	<u>Page</u>
Availability of Lands for Work	5	ITB - 4
Award of Contract	17	ITB - 7
Bid Form	12	ITB - 6
Bid Security & Insurance	7	ITB - 4
Bids to Remain Subject to Acceptance	16	ПВ - 7
Contract Security	18	ITB - 8
Contract Times	8	ПВ - 5
Copies of Bidding Documents	2	ITB - 2
Defined Terms	1	ITB – 2
Disposal Facilities	26	ITB 9
Examination of Contract Documents and Site	4	ITB - 2
Health and Safety Plan	23	TTB – 9
Interpretations and Addenda	6	ПВ - 4
Liquidated Damages	9	ITB - 5
Modification and Withdrawal of Bids	14	ITB - 7
Opening of Bids	15	ITB - 7
Prebid Conference	20	TTB - 8
Qualification of Bidders	3	ПВ - 2
Retainage	22	ITB - 8
Sales and Use Taxes	21	TTB – 8
Sampling and Analysis Plan	25	ΠB - 9
Signing of Agreement	19	ITB - 8
Subcontractors, Suppliers, and Others	11	ITB - 5
Submission of Bids	13	ПВ - 7
Substitute or "Or Equal" Items	10	ITB – 5
Work Plan	24	ITB - 9

Issued: 3/1/04 ITB-1 of 9

1. Defined Terms.

Terms used in these Instructions to Bidders which are defined in the Standard General Conditions of the Project Manual have the meanings assigned to them in the General Conditions.

Certain additional terms used in these Instruction to Bidders have the meanings indicated below which are applicable to both the singular and plural thereof.

- 1.1 Bidder one who submits a Bid directly to Owner as distinct from sub-bidder, who submits a bid to a Bidder.
- 1.2 Issuing Office the office from which the Bidding Documents are to be issued and where the bidding procedures are to be administered.
- 1.3 Successful Bidder the lowest, responsible and responsive Bidder to whom Owner (on the basis of Owner's evaluation as hereinafter provided) makes an award.

2. Copies of Bidding Documents.

- 2.1 Complete sets of the Bidding Documents in the number and for the sum, if any, stated in the Advertisement or Notice to Bidders may be obtained from the Issuing Office.
- 2.2 Complete sets of Bidding Documents must be used in preparing Bids; neither Owner nor Engineer assume any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.
- 2.3 Owner and Engineer in making copies of Bidding Documents available on the above terms do so only for the purpose of obtaining Bids for the Work and do not confer a license or grant for any other use.

3 Qualifications of Bidders.

To demonstrate qualifications to perform the Work, each Bidder must be prepared to submit within five days after Bid opening upon Owner's request detailed written evidence such financial data, previous experience, present commitments, and other such data as may be called for below-(or in the Supplementary instructions). Each Bid must contain evidence of Bidder's qualification to do business in the state where the Project is located or covenant to obtain such qualification prior to award of the contract.

4. Examination of Contract Documents and Site.

- 4.1 It is the responsibility of each bidder before submitting a Bid:
- 4.1.1 To examine thoroughly the Contract Documents and other related data identified in the Bidding Documents (including "technical data" referred to below);
- 4.1.2 To visit the site to become familiar with and satisfy Bidder as to the general, local and site conditions that may affect cost, progress, performance, or furnishing of the Work;
- 4.1.3 To consider federal state, and local Laws and Regulations that may affect cost, progress, performance or furnishing of the Work;

ISSued: 3/1/04 ITB - 2 of 9

- 4.1.4 To study and carefully correlate Bidder's knowledge and observations with the Contract Documents and such other related data; and
- 4.1.5 To promptly notify Engineer of all conflicts, errors, ambiguities or discrepancies which Bidder has discovered in or between the Contract Documents and such other related documents.
- 4.2 Reference is made to the Supplementary Conditions for identification of:
- 4.2.1 Those reports of explorations and tests of subsurface conditions at or contiguous to the site which have been utilized by Engineer in preparation of the Contract Documents. Bidder may rely upon the general accuracy of the "technical data" contained in such reports but not upon other data, interpretations, opinions or information contained in such reports or otherwise relating to the subsurface conditions at the site, nor upon the completeness thereof for the purposes of bidding or construction.
- 4.2.2 Those drawings of physical conditions in or relating to existing surface and subsurface structures (except Underground Facilities which are at or contiguous to the site that have been utilized by the engineer in preparation of the Contract Documents. Bidder may rely upon the general accuracy of the "technical data" contained in such drawings but not upon other data, interpretations, opinions, or information shown or indicated in such drawings or otherwise relating to such structures, nor upon the completeness thereof for the purposes of bidding or construction.

Copies of such reports and drawings will be made available by Owner to any Bidder on request. Those reports and drawings are not part of the Contract Documents, but the "technical data" contained therein upon which Bidder is entitled to rely as provided in Paragraph 4.2 of the General Conditions has been identified and established in Paragraph SC-4.2.1 of the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion drawn from any "technical data" or any such data, interpretations, opinions, or information.

- 4.3 Information and data Shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the site is based upon information and data furnished to Owner and Engineer by Owners of such Underground Facilities or others, and the Owner and Engineer do not assume responsibility for the accuracy or completeness thereof unless it is expressly provided otherwise in the Supplementary Conditions.
- 4.4 Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to subsurface conditions, other physical conditions and Underground Facilities, and possible changes in the Contract Documents due to differing or unanticipated conditions appear in Paragraphs 4.2 and 4.3 of the General Conditions.
- 4.5 Before submitting a Bid each Bidder will be responsible to obtain such additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the site or otherwise, which may affect cost, progress, performance or furnishing of the Work or which relate to any aspect of the means, methods, techniques, sequences or procedures of construction to be employed by Bidder and safety precautions and programs incident thereto or performing and furnishing the Work in accordance with the time, price, and other terms and conditions of the Contact Documents.
- 4.6 On request, OWNER will provide each Bidder access to the site to conduct such examinations, investigations, explorations, tests, and studies as each Bidder deems necessary for submission of a Bid. Bidder must fill all holes and clean up and restore the site to its former conditions upon completion of such explorations, investigations, tests, and studies.

Issued: 3/1/04 ITB - 3 of 9

- 4.7 Reference is made to the Supplementary Conditions for the identification of the general nature of work that is to be performed at the site by Owner or others (such as utilities and other prime contractors) that relates to the work for which a Bid is to be submitted. On request, OWNER will provide to each Bidder for examination access to or copies of Contract: Documents (other than portions thereof related to price) for such work.
- 4.8 The submission of a Bid will constitute incontrovertible representation by Bidder that Bidder complied with every requirement of this Article 4, without exception the Bid is premised upon performing and furnishing the Work required by the Contract Documents and applying the specific means, method, techniques, sequences, or procedures for construction (if any) that may be shown or indicated or expressly required by the Contract Documents, the Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Contract Documents and that the Contract Documents are generally sufficient to indicate and co understanding of all terms and conditions for performing and furnishing the Work
- 4.9 As a requirement of the Bid, the Bidder <u>must</u> attend a pre-bid meeting at the Project site at the time indicated in the Notice to Bidders, or as otherwise notified by the Owner's representative.

5. Availability of Lands for Work, etc.

The lands upon which the Work is to be performed, rights-of-way and easements for access thereto and other lands designated for use by Contractor in performing the Work are identified in the Contract Documents. All additional land and access thereto required for temporary construction of facilities, construction equipment, or storage of materials and equipment to be incorporated in the Work are to be obtained and paid for by CONTRACTOR. Easements for permanent structures or permanent changes in existing facilities are to be obtained and paid for by OWNER unless otherwise provided in the Contract Documents.

The CONTRACTOR must obtain a Construction Work Permit from the City of Schenectady before beginning any work on the City Sewer Easement.

6. Interpretations and Addenda.

- 6.1 All questions about the meaning or intent of Bidding Documents are to be directed to Engineer. Interpretations or clarifications considered necessary by Engineer in response to such questions will be issue Addenda mailed or delivered to all parties recorded by Engineer as having received the Bidding Documents. Questions received less than ten days prior to the date of opening of Bids may not be answered. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.
- 6.2 Addenda may also be issued to modify the Bid Documents as deemed advisable by OWNER or ENGINEER.

7. Bid Security & Insurance

- 7.1 Each bid must be accompanied by Bid security made payable to OWNER in an amount of five percent of Bidder's maximum Bid Price and in the form of a certified or bank check or a Bid Bond (on form attached, if a form is prescribed) issued by a surety meeting the requirements of Paragraph 5.1 of the General Conditions.
- 7.2 Each bid must be accompanied by a copy, of the proposed Pollution Liability Insurance policy or Certificate of Insurance with endorsements, and/or certificate of Proof of Availability of insurance.

Issued: 3/1/04 ITB - 4 of 9

Revised: 4/20/04

7.3 The Bid security of Successful Bidder will be retained until such Bidder has executed the Agreement, furnished the required contract security, and met the other conditions of the Notice of Award, whereupon the Bid security will be returned. If the Successful Bidder fails to execute and deliver the Agreement and furnish the required contract security within fifteen days after the Notice of Award, OWNER may annul the Notice of Award and the Bid security of that Bidder will be forfeited. The Bid security of other Bidders whom OWNER believes to have a reasonable chance of receiving the award may be retained by OWNER until the earlier of the seventh day after the Effective Date of the Agreement or the thirty-sixth day after the Bid opening, whereupon Bid security furnished by such Bidders will be returned. Bid security with Bids which are not competitive will be returned within seven days after the Bid opening.

8. Contract Times.

The number of days within which, or the dates by which, the Work is to be substantially completed and also completed and ready for final payment (the term "Contract Times" is defined in paragraph 1.9 of the General Conditions) are set forth in the Agreement (or incorporated therein by reference to the attached Bid Form).

9. Liquidated Damages.

Provisions for liquidated damages, if any, are set forth in the Agreement.

10. Substitute and "Or-Equal" Items.

The Contract, if awarded, will be on the basis of materials and equipment described in the Drawings or specified in the Specifications without consideration of possible substitute or "or-equal" items. Whenever it is indicated in the Drawings or specified in the Specifications that a substitute or "or-equal" item of material or equipment may be furnished or used by Contractor if acceptable to Engineer, application for such acceptance will not be considered by ENGINEER until after the Effective Date of the Agreement. The procedure for submission of any such application by CONTRACTOR and consideration by ENGINEER is set forth in Paragraph 6.7.1 of the General Conditions and may be supplemented in the General Requirements.

11. Subcontractors, Suppliers, and Others

11.1 If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers and other persons and organizations (including those who are to furnished the principal items of material and equipment) to be submitted to OWNER in advance of a specified date prior to the Effective Date of the Agreement, apparent Successful Bidder, and any other Bidder so requested, shall within five days after Bid opening; submit to OWNER a list of all such Subcontractors, Suppliers, and other persons and organizations proposed for those portions of the Work for which such identification is required. Such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor, Supplier, person, or organization if requested by OWNER. An OWNER or ENGINEER who after due investigation has reasonable objection to any proposed Subcontractor Supplier, other person, or organization, may before the Notice of Award is given request apparent Successful Bidder to submit an acceptable substitute without a increase in Bid Price.

Issued: 3/1/04 ITB - 5 of 9

If apparent Successful Bidder declines to make any such substitution, OWNER may award the contract to the next lowest Bidder that proposes to use acceptable Subcontractors, Suppliers, and other persons and organizations. The declining to make requested substitutions will not constitute grounds for sacrificing the Bid security of any Bidder. Any Subcontractor, Supplier, other person or organization listed and to whom OWNER or ENGINEER does not make written objection prior to the giving of the Notice of Award will be deemed acceptable the OWNER and ENGINEER subject to revocation of such acceptance after the Effective Date of the Agreement as provided in Paragraph 6.8 of the General Conditions.

- 11.2 In contracts where the Contract Price is on the basis of Cost-of-the-Work Plus a Fee, apparent Successful Bidder, prior to the Notice of Award shall identify in writing to OWNER those portions of the Work that such Bidder proposes to subcontract and after the Notice of Award may only subcontract other portions of the Work with OWNER's written consent.
- 11.3 No CONTRACTOR shall be required to employ any Subcontractor, Supplier, other person or organization against who CONTRACTOR has reasonable objection.
- 11.4 All subcontracts valued over \$5,000 must be submitted to the NYSDEC when they are executed.
 - a. Unit price subcontracts over \$10,000 require five responsive bids/quotes for justification with at least three in writing, for each subcontract
 - b. Subcontracts estimated to be between \$5,000 and \$10,000 require three written responsive guotes, for each subcontract
 - c. For subcontracts under \$5,000, written quotes are not required but costs will be evaluated by the NYSDEC for reasonableness, i.e. comparison to a previous engineering estimate, lowest of three verbal quotes, or comparison with recent comparable work
 - d. For subcontracts under \$25,000 may be unit price or fixed price provided the scope of work can be well defined and three written, responsive quotes are obtained. Sub-consultant contracts which are over \$25,000 must, or under \$25,000 may, be cost plus fixed fee type contracts.

12. Bid Form.

- 12.1 The Bid Form is included with the Bidding Documents; additional copies may be obtained form Engineer (or the issuing Office).
- 12.2. All blanks on the Bid Form must be completed by printing in black ink or by typewriter.
- 12.3. Bids by corporations must be executed in the corporate name by the president or a vice-president (or other corporate officer accompanied by evidence of authority to sign) and the corporate seal must be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation must be shown below the signature.
- 12.4 Bids by partnerships must be executed in the partnership name and signed by a partner, whose title must appear under the signature and the official address of the partnership must be shown below the signature.
- 12.5 All names must be typed or printed in black ink below the signature.

Issued: 3/1/04 ITB - 6 of 9

- 12.6 The Bid shall contain an acknowledgment of receipt of all Addenda (the numbers of which must be filled in on the Bid Form).
- 12.7 The address and telephone number for communications regarding the Bid must be shown.
- 12.8 Evidence of authority to conduct business as an out-of-state corporation in the state where the Work is to be performed shall be provided in accordance with Paragraph 3 above. State contractor license number, if any, must also be shown.

13. Submission of Bids.

Bids shall be submitted at the time and place indicated in the Advertisement of Notice of Bidder and shall be enclosed in an opaque sealed envelope, marked with the Project title (and, if applicable, the designated portion of the Project for which the Bid is submitted) and name and address of Bidder and accompanied by the Bid security and other required documents. If the Bid is sent through the mail or other delivery system the sealed envelope shall be enclosed in a separate envelope with the notation "BID ENCLOSED" on the face of it.

14. Modification and Withdrawal of Bids.

- 14.1. Bids may be modified or withdrawn by an appropriate document duly executed (in the manner that a Bid must be executed) and delivered to the place where Bids are to be submitted at any time prior to the opening of Bids.
- 14.2. If, within twenty-four hours after Bids are opened, any Bidder files a duly signed, written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of OWNER that there was a material and substantial mistake in the preparation of its Bid, that Bidder may withdraw its Bid and bid security will be returned. Thereafter, that Bidder will be disqualified from further bidding on the Work to be provided under the Contract Documents.

15. Opening of Bids.

Bids will be opened and (unless obviously non-responsive) read aloud publicly at the place where Bids are to be submitted. An abstract of the amounts of the base Bid and major alternates (if any) will be made available to Bidders after the opening of Bids.

16. Bids to Remain Subject to Acceptance.

All Bids will remain subject to acceptance for sixty-five (65) days after the day of the Bid opening, but Owner may, in its sole discretion, release any Bid and return the Bid security prior to that date.

17. Award of Contract.

17.1 OWNER reserves the right to reject any or all Bids including without limitation the rights to reject any or nonconforming, non-responsive, unbalanced, or conditional Bids and to reject the Bid of any Bidder if OWNER believes that it would not be in the best interest of the Project to make an award to that Bidder, whether because the Bid is not responsible or the Bidder is unqualified or of doubtful financial ability or fails to meet any other pertinent standards or criteria established by OWNER.' OWNER also reserves the right to waive all informalities not involving price, time or changes in the Work and to negotiate contract terms with the Successful Bidder. OWNER also reserves the right to withhold award of any Contract to complete the Work unless and until issuance by New York State of a State Assistance Contract and encumbering of State funds to reimburse Owner for costs incurred in completion of the Work. Discrepancies between the multiplication of units of Work and unit prices will resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. Discrepancies between words and figures will be resolve in favor of the words.

Issued: 3/1/04 ITB - 7 of 9

Revised: 4/20/04

- 17.2 In evaluating Bids, OWNER will consider the qualifications of Bidders, whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices, and other data as may be requested in the Bid Form or prior to the Notice of Award.
- 17.3 OWNER may consider the qualifications and experience of Subcontractors, Suppliers, and other persons and organizations proposed for those portions of the Work as to which the identity of Subcontractors, Suppliers, and other persons and organizations must be submitted as provided in the Supplementary Conditions. OWNER also may consider the operating costs, maintenance requirements, performance data and guarantees of major items of materials and equipment proposed for incorporation in the Work when such data is required to be submitted prior to the Notice of Award.
- 17.4 OWNER may conduct such investigations as OWNER deems necessary to assist in the evaluation of any Bid and to establish the responsibility, qualifications, and financial ability of Bidders, proposed Subcontractors, Suppliers, and other persons and organizations to perform and furnish the Work in accordance with the Contract Documents to OWNER's satisfaction within the prescribed time.
- 17.5 If the contract is to be awarded, it will be awarded to lowest Bidder whose evaluation by OWNER indicates to OWNER that the award will be in the best interests of the Project.
- 17.6 If the contract is to be awarded, OWNER will give Successful Bidder a Notice of Award within sixty-five (65) days after the day of the Bid opening.

18. Contract Security.

Paragraph 5.1 of the General Conditions and the Supplementary Conditions set forth OWNER's requirements as to performance and payment Bonds. When the Successful Bidder delivers the executed Agreement to OWNER, it must be accompanied by the required performance and payment Bonds.

19. Signing of Agreement.

When OWNER gives a Notice of Award to the Successful Bidder, it will be accompanied by the required number of unsigned counterparts of the Agreement with all other written Contract Documents attached. Within fifteen days thereafter CONTRACTOR shall sign and deliver the required number of counterparts of the Agreement and attached documents to OWNER with the required Bonds. Within ten days thereafter OWNER shall deliver one fully signed counterpart to CONTRACTOR. Each counterpart is to be accompanied by a complete set of the Drawings with appropriate identification.

20. Prebid Conference.

A pre-bid conference will be held at 10:30 a.m. on the third day of June, 2004 (June 3, 2004) at the Riverside Lot 6 site. Representatives of OWNER and ENGINEER will be present to discuss the Project. Bidders are required to attend and participate in the pre-bid conference. ENGINEER will transmit to all prospective Bidders of record such Addenda as Engineer considers necessary in response to questions arising at the conference. Oral statements may not be relied upon and will not be binding or legally effective.

21. Sales and Use Taxes.

OWNER is exempt from New York State Sales and Use Taxes on materials and equipment to be incorporated in the Work. Said taxes should not be included in the Contract Price. Refer to Supplementary Conditions SC 6.15 for additional information.

22. Retainage.

Provisions concerning retainage and CONTRACTOR'S rights to deposit securities in lieu of retainage are set forth in the Agreement.

Issued: 3/1/04 ITB - 8 of 9

Revised: 4/20/04

23. Health and Safety Plan

A Health and Safety Plan prepared in full accordance, as a minimum, with Section 01300 Sub-part 1.5C and Section 01310A of the General Requirements shall be submitted by the successful bidder to ENGINEER prior to the commencement of any work at the site.

24. Work Plan

A Work Plan prepared in accordance with Section 01300 Sub-parts 1.5A and 1.5B, and Section 02507 of the General Requirements and Sitework Specifications shall be submitted by the successful bidder to ENGINEER prior to the commencement of any work at the site.

25. Sampling and Analysis Plan

A Sampling and Analysis Plan prepared in accordance with Section 01300 Sub-part 1.5C and Section 02506 of the General Requirements and Sitework Specifications shall be submitted by the successful bidder to ENGINEER prior to the commencement of any work at the site.

26. Off-Site disposal Facilities

The Bidder shall identify the waste disposal facilities to be utilized as primary and back-up disposal sites, and shall provide evidence of the facilities' ability and willingness to receive the anticipated wastes, and evidence of proper legal permits and authority to accept the anticipated wastes.

ISSued: 3/1/04 ITB - 9 of 9

INFORMATION AVAILABLE TO BIDDERS

INFORMATION PLACED IN THIS SECTION IS NOT A PART OF THE CONTRACT DOCUMENTS.

- 1. A number of test borings and test pits were taken in the vicinity of the work. The location of these borings are shown on the Contract Drawings or in the attached Design Investigation Report, or in the Project SI/RAR, and soil boring, monitoring well, test pit, and environmental laboratory information is included in previously prepared reports.
- 2. Logs of the test borings and test pits referred to above are available for inspection with the Contract Documents, but are not a part of the Contract Documents. The availability of these borings is not intended to relieve Bidders of their obligation to make a thorough investigation of conditions below the surface of the ground and neither additional payment nor an extension of time will be made to the Contractor because the borings or test pits referred to above do not necessarily accurately represent the true nature of the subsurface conditions.
- 3. Bidders and prospective Bidders are hereby warned and put on notice that the borings referred to above were made for investigation and design purposes only. They were not made for the purpose of informing Bidders and prospective Bidders as to subsurface conditions in the area of the work covered by this Contract and are not, in the opinion of the Engineer, necessarily sufficient or extensive enough to provide a complete, accurate or reliable indication of subsurface conditions which might be encountered in the performance of this Contract.
- 4. Neither the Owner nor the Engineer has made any investigation of subsurface conditions in the area covered by the work to be performed under this Contract other than the borings referred to above, and, in bidding on this Contract, each Bidder acknowledges that he has made whatever investigation of subsurface conditions he had deemed necessary for the purpose of bidding. Permission for making borings or test pits for investigation of subsurface conditions will be arranged for by the Engineer upon receipt of a written request therefor.

The following information is attached to these Bid Documents, but are not a part of the Bid Documents:

City of Schenectady POTW Industrial Effluent Limitations

Riverside Lot 6 Brownfields Design Investigation; Holt Consulting, Sept. 2003

The following information will be available to Bidders at the offices of the City of Schenectady IDA at 433 State Street, Schenectady, NY during normal business hours. Arrangements may be made by calling (518) 377-1109

Site Investigation / Remedial Alternatives Report (SI/RAR)
Lot No. 6 — Riverside Technology Park; Holt Consulting, Nov. 2002

Environmental Restoration, Record of Decision Riverside Technology Park Site (B-00053-4); NYSDEC Mar. 2003

This information is not a part of the Contract Documents for remediation at the Riverside Lot 6 Brownfield Environmental Restoration Site. Neither the Owner, Engineer, nor NYSDEC represent that the locations of the contaminated soils at the site will be the same as those shown. The Contractor shall be responsible for accurate and comprehensive characterization of contaminated soils to be properly excavated, transported, and disposed.

BID FORM

•	DD 0.150		
	PROJECT	TIDENTIFICATION:	Riverside Lot 6 Brownfields Remediation
•	CONTRA	CT IDENTIFICATION AND NUMBER:	Contract No. 1
•	THIS BII	O IS SUBMITTED TO:	
•	Michael 3 433 Stat	chenectady IDA J. Petta, Board Chairman e Street, P.O. Box 68 tady, New York 12301	
•			
ı	with OW indicated	NER in the form included in the Contract Docum	, if this Bid is accepted, to enter into an agreement nents to perform and furnish all Work as specified or and within the Bid Times indicted in this Bid and in ontract Documents.
•	Instruction Bid will read deliver	ons to Bidders, including without limitation tho emain subject to acceptance for sixty-five (65)	ons of the Advertisement or Invitation to Bid and se dealing with the disposition of Bid security. This days after the day of Bid opening. BIDDER will sign a Agreement with the Bonds and other documents after the date of OWNER's Notice of Award.
	3. I	n submitting this Bid, BIDDER represents as mo	ore fully set forth in the Agreement, that:
1	(I the Bidding Documents and the following Addenda (List Addenda by Addendum Number and Date)
1			
ı	(R visited and became familiar with the site. The and site conditions that may affect cost, progress,
ı	(BIDDER is familiar with and is satisfied as t that may affect cost, progress, performance, 	o all federal, state, and local Laws and Regulations and furnishing of the Work.

Issued: 3/1/04 BF - 1 of 5 Revised: 4/20/04

- (d) BIDDER has carefully studied all reports of explorations and tests of subsurface conditions at or contiguous to the site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the site (except underground facilities) which have been identified in the Supplementary Conditions as provided in paragraph 4.2 of the General BIDDER accepts the determination set forth in paragraph SC-4.2.1 of the Supplementary Conditions of the extent of the "technical data" contained in such reports and drawings upon which BIDDER is entitled to rely as provided in paragraph 4.2 of the General Conditions. BIDDER acknowledges that such reports and drawings are not Contract Documents and may not be complete for BIDDER's purposes. BIDDER acknowledges that OWNER and ENGINEER do not assume responsibility for the accuracy or completeness of information and data shown or indicated in the Bidding Documents with respect to underground facilities or conditions at or contiguous to the site. BIDDER has obtained and carefully studied (or assumes responsibility for having done so) all such additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and underground facilities) at or contiguous to the site or otherwise which may affect cost progress, performance or furnishing of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by BIDDER and safety precautions and programs incident thereto. BIDDER does not consider that any additional examinations, investigations, explorations, tests, studies or data are necessary for the determination of this Bid for performance and furnishing of the Work in accordance with the times, price, and other terms and conditions of the Contract Documents.
- (e) BIDDER is aware of the general nature of Work to be performed by OWNER and others at the site that relates to Work for which this Bid is submitted as indicated in the Contract Documents.
- (f) BIDDER has correlated the information known to BIDDER, information and observation obtained from visits to the site, reports and drawings identified in the Contract Documents and all additional examinations, investigations, explorations, tests, studies, and data with the Contract Documents.
- (g) BIDDER has given ENGINEER written notice of all conflicts, errors, ambiguities or discrepancies that BIDDER has discovered in the Contract Documents and the written resolution thereof by ENGINEER is acceptable to BIDDER, and the Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work for which this Bid is submitted.
- (h) This Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm, or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization, or corporation; BIDDER has not directly or indirectly induced or solicited any other BIDDER to submit a false or sham Bid; BIDDER has not solicited or induced any person, firm or corporation to refrain from bidding; and BIDDER has not sought by collusion to obtain for itself any advantage over any other BIDDER or over OWNER.
- (i) (Any other representation required by Laws and Regulations.)

Issued: 3/1/04 BF - 2 of 5

4. BIDDER will complete the Work in accordance with the Contract Documents for the following prices:

Item No.	Description	Unit	Estimated Quantity	Unit Price	Total Estimated Price
16.1	Mahilimtian/Danahilimtian/Cita Dana			_	
LS-1	Mobilization/Demobilization/Site Prep	LS	1	\$	\$
LS-2	(8) Monitor Well Decommissioning	LS	1	\$	\$
LS-3	Construct Dewatering Facilities/Utilities	LS	1	\$	\$
UP-4	Health & Safety / Site Management	Day	30	\$	\$
UP-5	Contaminated Soil Excavation & Removal	Ton	6,200	\$	\$
UP-6	Excavation Backfill & Site Grading	CY	3,675	\$	\$
UP-7	Site Restoration & Seeding	1,000 SF	35	\$	\$
UP-8	Construction Water Management – Un-treated	Gal.	100,000	\$	\$
UP-9	Construction Water Management – Treated	Gal.	100,000	\$	\$
UP-10	Construction Water Testing	Ea.	25	\$	\$
UP-11	Soil Verification Testing	Ea.	30		
	GRAND TOTAL				\$
				\$	\$
LS-12	Pollution Liability Insurance **	LS	**	\$	\$ 0.00 **
	** Not included in Bid Price				

TOTAL BID PRICE

TOTAL BID FOR ALL LUMP SUM AND			
UNIT PRICES :		(\$)
	(use words)	(figures))

Unit Prices have been computed in accordance with paragraph 11.9.2 of the General Conditions.

Bidder acknowledges that quantities are not guaranteed and final payment will be based on actual quantities determined as provided in the Contract Documents.

5. BIDDER agrees that the Work will be substantially completed, and completed and ready for final payment, in accordance with paragraph 14.13 of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement.

Issued: 3/1/04 BF - 3 of 5

If BIDDER is:

An Individual

Telephone:

Issued: 3/1/04

Business address _____

(SEAL)

BF - 4 of 5

BIDDER accepts the provisions of the Agreement as to liquidated damages in the event of failure to complete the Work within the times specified in the Agreement. 6. The following documents are attached to and made a condition of this Bid: Required Bid Security in the form of a certified check, bank check, or bid bond. (a) A tabulation of Subcontractors, Suppliers, and other persons and organizations required to be (b) identified in this Bid. Required BIDDER's Qualification Statement with supporting data. (c) (d) Resolution of Board of Directors (e) Non-Collusion Form (f) Proof of Pollution Liability Insurance 7. Communications concerning this Bid shall be addressed to (BIDDER): 8. Terms used in this Bid which are defined in the General Conditions or Instructions will have the meanings indicated in the General Conditions or Instructions. State Contractor License No.

Doing business as ______

Riverside Lot 6 Brownfields Remediation	Bid Form
A Partnership	
	(SEAL)
(Firm Name)	(SLAL)
(general partner)	
Business address	
elephone:	
A Corporation	
Зу	(SEAL)
(Corporate Name)	(0012)
(state of incorporation)	
(Name of person authorized to sign)	(SEAL)
(Title) Corporate Seal) Attest	
(Secretary)	
Business address	
Telephone:	
ate of qualification to do business is:	
a Joint Venture	
у	(SEAL)
(Name)	
(Address)	(SEAL)
(Name)	(52.2)
(Address)	
hone Number and Address for receipt of official communications	

Issued: 3/1/04

CERTIFIED COPY OF RESOLUTION OF THE BOARD OF DIRECTORS OF

(NAME OF CORPO	RATION)
"RESOLVED that	
"RESOLVED that(Person Authorized to Sign)	(Title)
of	authorized to sign and submit
of(Name of Corporation)	•
the Bid of this corporation for the following Project:	
and to include in such bid the certificate as to non-collusion, certificate this corporate Bidder shall be liable under the penalties	
The foregoing is a true and correct copy of the resolution	a adopted by
(NAME OF CORPORATION)	
at a meeting of its Board of Directors held on the d	ay of 2004
By:	
Title:	
(SEAL)	

The above form must be completed if the Bidder is a Corporation.

NON-COLLUSION FORM

GENERAL MUNICIPAL LAW CHAPTER 675

Amending 103-d - General Municipal Law

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 to the best of his knowledge and belief:

- 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;
- 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.

FIRM:	 				
BY:					
DATE:					
	CONTRACT	NO.(S):	 		
	CONTRACT NA	ME(S):		_	

BID BOND

SURETY (Name and A	ddress of Principal Pla	<u>ce of Business)</u> :		
OWNER (Name and Ad	<u>ldress)</u> :			
PROJECT (Brief De	escription Including Lo	cation):		
BOND				
BOND NUMBER: _	on Rid Due Date):			
BOND NUMBER: _ DATE: (Not later the	an Bid Due Date):			
BOND NUMBER: _ DATE: (Not later the	an Bid Due Date):			
BOND NUMBER: _ DATE: (Not later the PENAL SUM:	an Bid Due Date):			_
BOND NUMBER: DATE: (Not later the PENAL SUM: IN WITNESS WHERECOprinted on the reverse in the property of the prope	on Bid Due Date): DF, Surety and Bidder, side hereof, do each continue to the continue	intending to be le		to the t
BOND NUMBER: DATE: (Not later the PENAL SUM:	on Bid Due Date): DF, Surety and Bidder, side hereof, do each continue to the continue	intending to be le	egally bound hereby, subject	to the t
BOND NUMBER: DATE: (Not later the PENAL SUM: IN WITNESS WHERECONTINUES OF THE PENAL SUM: BOND NUMBER: IN WITNESS WHERECONTINUES OF THE PENAL SUM: PRINTED OF THE PENAL SUM: BOND NUMBER: PENAL SUM: IN WITNESS WHERECONTINUES OF THE PENAL SUM: BOND NUMBER: BOND NUMBER: PENAL SUM: BOND NUMBER: BOND NUMBER: BOND NUMBER: BOND NUMBER: PENAL SUM: BOND NUMBER:	on Bid Due Date): DF, Surety and Bidder, side hereof, do each continue to the continue	, intending to be le cause this Bid bon	egally bound hereby, subject	to the t
BOND NUMBER: DATE: (Not later the PENAL SUM: IN WITNESS WHERECOprinted on the reverse in the property of the prope	on Bid Due Date):	intending to be leause this Bid bon	egally bound hereby, subject	to the t
BOND NUMBER: DATE: (Not later the PENAL SUM: IN WITNESS WHERECONTINUES OF THE PENAL SUM: BOND NUMBER: IN WITNESS WHERECONTINUES OF THE PENAL SUM: PRINTED THE PENAL SUM BOND SUM BON	on Bid Due Date):	intending to be leause this Bid bon SURETY	egally bound hereby, subject	to the t
BOND NUMBER:	OF, Surety and Bidder, side hereof, do each of, or representative.	surety's N	egally bound hereby, subject d to be duly executed on its lame and Corporate Seal	to the t behalf t
BOND NUMBER: DATE: (Not later the PENAL SUM: IN WITNESS WHERECONTINUES OF THE PENAL SUM: BIDDER	OF, Surety and Bidder, side hereof, do each of, or representative.	surety's N	egally bound hereby, subject d to be duly executed on its lame and Corporate Seal	to the t behalf t
BOND NUMBER:	OF, Surety and Bidder, side hereof, do each of, or representative.	surety's N	egally bound hereby, subject d to be duly executed on its lame and Corporate Seal	to the t behalf t
BOND NUMBER:	DF, Surety and Bidder, side hereof, do each of the corporate Seal)	surety's N	egally bound hereby, subject d to be duly executed on its lame and Corporate Seal Signature and Title (Attach Power of Attorney	to the the behalf the

EJCDC NO. 1910-28-C (1990 Edition)

- 1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to pay to OWNER upon default of Bidder the penal sum set forth on the face of this Bond.
- 2. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents and Contract Documents.
- 3. This obligation shall be null and void if:
 - 3.1. OWNER accepts Bidder's bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by OWNER) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents and Contract Documents, or
 - 3.2 All bids are rejected by OWNER, or
 - 3.3 OWNER fails to issue a notice of award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by paragraph 5 hereof).
- 4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from OWNER, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.
- 5. Surety waives notice of and any and all defenses based on or arising out of any time extension to issue notice of award agreed to in writing by OWN-ER and Bidder, provided that the time for issuing notice of award including extensions shall not in the aggregate exceed 120 days from Bid Due Date without Surety's written consent.
- 6. No suit or action shall commenced under this Bond prior to 30 calendar days after the notice of default required in paragraph 4 above is received by Bidder and Surety, and in no case later than one year after Bid Due Date.
- 7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.

- 8. Notice required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. such notices may be sent by personal deliver, commercial courier or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.
- 9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent or representative who executed this Bond on behalf of Surety to execute, seal and deliver such Bond and bind the Surety thereby.
- 10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted form this Bond shall be deemed to be included herein as if set forth at length. If any provision of any Bond conflicts with any applicable provision of any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.
- 11. The term "bid" as used herein includes a bid, offer, or proposal as applicable.

BIDDERS QUALIFICATION QUESTIONNAIRE

	e undersigned guarantees the accuracy of all statements and answers herein contained. (Please type nt in ink).
1.	How many years has your firm been in business as a Contractor?
2.	List up to three (3) projects of this nature that you have completed in the last three (3) years, and the name, address and telephone number of a reference from each. Also give the completion date, original contract bid price and the completed cost of each project listed.
	List projects presently under construction by your firm, the dollar volume of the contract, and the centage completion of the contract.
er	
- - - - -	centage completion of the contract.

-	
7.	What equipment do you plan to rent or purchase for this work?
so,	Have you ever performed work under the direction of a Professional Engineer or Registered Ar list up to three (3) such firms giving the name of the firm, its address, telephone number and the project. (List most recent projects).
who	Give the name, address and telephone number of an individual who represents each of the follow the Owner may contact to investigate your financial responsibility: a surety, a bank, and a terial supplier.
-	
Onl	Give a summary of your financial statement. List assets and liabilities, use an insert sheet, if n y three (3) lowest bidders shall submit this information (if requested by Owner) to the Owner y-eight (48) hours of the opening of the Bids.

		Correct Name of Bi	dder	
(a) The busi	ness is a			
(b) The addr	ess of principal place	e of business is:		
		_		_
		_		
	es of the corporate on e as follows:	fficers, or partners,	or individuals doin	g business under a
	_			
Bidder				
Bidder				

STANDARD FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR ON THE BASIS OF A STIPULATED PRICE

	n <u>City of Schenectady Industrial Development Agency</u> (hereinafter called OWNER) and
	(hereinafter called CONTRACTOR).
OWNER	and CONTRACTOR, in consideration of the mutual covenants hereinafter set forth, agree as follows:
Article	1. WORK.
	ACTOR shall complete all Work as specified or indicated in the Contract Documents. The Work is y described as follows:
and ren 6,200 to area wit with pr	bilization and preparation including work areas and drainage and erosion controls; decommissioning noval of eight (8) existing ground water monitoring wells; excavating and disposing of approximately ons (3,675 cubic yards) of petroleum-contaminated soil; dewatering of the anticipated excavation the collection and disposal of the excavation water to the City of Schenectady sewer system, possibly e-treatment by carbon filtration; placing and compacting earth fill materials in the completed ion with site restoration to pre-existing grades; performing QA/QC soil and water testing. And other work.
	ject for which the Work under the Contract Documents may be the whole or only a part is generally as follows: Riverside Lot 6 Brownfields Remediation.
Article	2. ENGINEER.
OWNER to ENGI	ject has been designed by Holt Consulting who is hereinafter called ENGINEER and who is to act as 's representative, assume all duties and responsibilities and have the rights and authority assigned NEER in the Contract Documents in connection with completion of the Work in accordance with the Documents.
Article	3. CONTRACT TIMES.
4.1	The Work will be substantially completed within 65 days, after the Notice to Proceed and completed and ready for final payment in accordance with paragraph 14.13 of the General Conditions within 90 days after The Notice to Proceed.
4.1	<u>Liquidated Damages</u> . OWNER and CONTRACTOR recognize that time is of the essence of this Agreement and that OWNER will suffer financial loss if the Work is not completed within the times specified in paragraph 3.1 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. They also recognize the delays, expense and difficulties involved in proving the actual loss suffered by OWNER if the Work is not completed on time. Accordingly, instead of requiring of such proof. OWNER and CONTRACTOR agree that as liquidated damages for delay (but not as a penalty) CONTRACTOR shall pay OWNER Two Thousand Five Hundred dollars (\$2,500.00) for each day that expires after the time specified in paragraph 3.1 for Substantial Completion until the Work is substantially complete. After Substantial Completion, if

readiness for final payment.

Article 4. CONTRACT PRICE.

OWNER shall pay CONTRACTOR for completion of the Work in accordance with the Contract Documents an amount in current funds equal to the sum of the amounts determined pursuant to paragraph 4.1.

4.1 For all Unit Price Work, an amount equal to the sum of the established unit price for each separately identified item of Unit Price Work times the estimated quantity of that item as indicated on the Bid Form. Based on these quantities, the total initial contract price is:

TOTAL OF ALL UNIT PRICES AND LUMP SUM:		
	and xx/100 dollars (\$)
(use words)	•	•

As provided in paragraph 11.9 of the General Conditions estimated quantities are not guaranteed, and determinations of actual quantities and classification are to be made by ENGINEER as provided in paragraph SC-11.9.1 of the Supplementary Conditions. Unit prices have been computed as provided in paragraph SC-11.9.1 of the Supplementary Conditions.

Article 5. PAYMENT PROCEDURES

CONTRACTOR shall submit Application for Payment in accordance with Article 14 of the General Conditions, Applications for Payment will be processed by ENGINEER as provided in the General Conditions.

- 5.1. <u>Progress Payments</u>; <u>Retainage</u>. OWNER shall make progress payments on account of the Contract Price on the basis of CONTRACTOR's Applications for Payment as recommended by ENGINEER, on or about the 15th day of each month during construction as provided in paragraphs 5.1.1 and 5.1.2 below. All such payments will be measured by the established schedule of values (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no schedule of values, as provided in the General Requirements.
 - 5.1.1. Prior to Substantial completion, payments will be made in an amount equal to the percentage indicated below, but, in each case, less the aggregate of payments previously made and less such amounts as ENGINEER shall determine, or OWNER may withhold, in accordance with paragraph 14.7 of the General Conditions.
 - 90 % of Work completed (with the balance being retainage) as determined to be satisfactorily completed by ENGINEER.
 - 90 % (with the balance being retainage) of materials and equipment not incorporated in the Work (but delivered, suitably stored and accompanied by documentation satisfactory to OWNER as provided in paragraph 14.2 of the General Conditions).
 - 5.1.2. Upon Substantial Completion, retainage will be reduced to 50 percent of the total retainage held until such time as vegetative cover has been established to the satisfaction of the Engineer and the Owner. Upon acceptance of established vegetative cover, retainer will be reduced to two (2) times the value of any remaining work, plus such amounts as ENGINEER shall determine, or OWNER may withhold, in accordance with paragraph 14.7 of the General Conditions.
- 5.2. <u>Final Payment</u>. Upon final completion and acceptance of the Work in accordance with paragraph 4.13 of the General Conditions, OWNER shall pay the remainder of the Contract Price as recommended by ENGINEER as provided in said paragraph 14.13.

Article 6. INTEREST.

All moneys not paid when due as provided in Article 14 of the General Conditions shall bear interest at the maximum rate allowed by law at the place of the Project.

Article 7. CONTRACTOR'S REPRESENTATIONS.

In order to induce OWNER to enter into this Agreement CONTRACTOR makes the following representations:

- 7.1. CONTRACTOR has examined and carefully studied the Contract Documents (including the Addenda listed in paragraph 8) and the other related data identified in the Bidding Documents including "technical data."
- 7.2. CONTRACTOR has visited the site and become familiar with and is satisfied as to the general, local, and site conditions that may affect cost, progress, performance or furnishing of the Work.
- 7.3. CONTRACTOR is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, performance and furnishing of the Work.
- 7.4. CONTRACTOR has carefully studied all reports of explorations and tests of subsurface conditions at or contiguous to site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the site (except Underground Facilities) which have been identified in the Supplementary Conditions as provided in paragraph 4.2 of the General Conditions. CONTRACTOR accepts the determination set forth in paragraph SC-4.2.1 of the Supplementary Conditions upon which CONTRACTOR is entitled to rely as provided in paragraph 4.2 of the General Conditions, CONTRACTOR acknowledges that such reports and drawings are not Contract Documents and may not be complete for CONTRACTOR's purposes. CONTRACTOR acknowledges that OWNER and ENGINEER do not assume responsibility for the accuracy or completeness of information and data shown or indicated in the Contract Documents with respect to Underground Facilities at or contiquous to the site. CONTRACTOR has obtained and carefully studied (or assumes responsibility for having done so) all such additional supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the site or otherwise which may affect cost, progress, performance, or furnishing of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by CONTRACTOR and safety precautions, and programs incident thereto. CONTRACTOR does not consider that any additional examinations, investigations, explorations, tests, studies, or data are necessary for the performance and furnishing of the Work at the Contract Price, within the Contract Times and in accordance with the other terms and conditions of the Contract Documents.
- 7.5. CONTRACTOR is aware of the general nature of work to be performed by OWNER and others at the site that relates to the Work as indicated in the Contract Documents.
- 7.6 CONTRACTOR has correlated the information known to CONTRACTOR, information and observation obtained from visits to the site, reports, and drawings identified in the Contract Documents and all additional examinations, investigations, explorations, tests, studies, and data with the Contract Documents.
- 7.7. CONTRACTOR has given ENGINEER written notice of all conflicts, errors, ambiguities or discrepancies that CONTRACTOR has discovered in the Contract Documents and the written resolution thereof by ENGINEER is acceptable to CONTRACTOR, and the Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

Article 8. CONTRACT DOCUMENTS

The Contract Documents which comprise the entire agreement between OWNER and CONTRACTOR concerning the Work consist of the following:

- 8.1 This Agreement (pages 1 to 5, inclusive).
- 8.2 Exhibits to this Agreement: Certificate of Attorney-Owner, Affidavit-Worker's Compensation.
- 8.3. Performance, Payment, and other Bonds.
- 8.4. Notice to Proceed.
- 8.5. General Conditions (pages 1 to 18, inclusive).
- 8.6. Supplementary Conditions (page 1 to 22, inclusive).
- 8.7. Specifications bearing the title Riverside Lot 6 Brownfields Remediation and consisting of 2 divisions as listed in table of contents thereof.
- 8.8. Drawings consisting of sheets numbered $\underline{1}$ through $\underline{4}$, inclusive with each sheet bearing the following general title: Riverside Lot 6 Brownfields Remediation.
- 8.9. Addenda numbers <u>1</u> to <u>-</u>, inclusive.
- 8.10. CONTRACTOR's Bid (pages <u>BF-1</u> to <u>BF-5</u>, inclusive) marked exhibit \underline{A} .
- 8.11. Documentation submitted by CONTRACTOR prior to Notice of Award (pp BR-1 to BO-3, inclusive)
- 8.12. The following which may be delivered or issued after the Effective Date of the Agreement and are not attached hereto: All Written Amendments and other documents amending, modifying or supplementing the Contract Documents pursuant to paragraphs SC-3.6 and SC-3.7 of the Supplementary Conditions.

The documents listed in paragraph 8.2 et seq. above are attached to this Agreement (except as expressly noted otherwise above).

There are not Contract Documents other than those listed above in this Article 8. The Contract Documents may only be amended, modified or supplemented as provided in paragraphs SC-3.6 and SC-3.7 of the Supplementary Conditions.

Article 9. MISCELLANEOUS.

- 9.1 Terms used in this Agreement which are defined in Article 1 of the General Conditions will have the meanings indicated in the General Conditions.
- 9.2. No assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

- 9.3. OWNER and CONTRACTOR each binds itself, its partners, successors, assigns and legal representatives to the other party hereto, its partners, successors, assigns and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.
- 9.4. Any provisions or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon OWNER and CONTRACTOR, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

IN WITNESS WHEREOF, OWNER, and CONTRACTOR have signed this Agreement in triplicate. One counterpart each has been delivered to OWNER, CONTRACTOR, and ENGINEER. All portions of the Contract Documents have been signed, initialed or identified by OWNER, and CONTRACTOR, or identified by ENGINEER on their behalf.

This Agreement will be effective onJuly	, 2004 (which is the Effective Date of the Agreement).
OWNER City of Schenectady IDA	CONTRACTOR
By:	By:
(CORPORATE SEAL)	(CORPORATE SEAL)
Attest:	Attest:
Address for giving notices City of Schenectady IDA	Address for giving notices
Michael J. Petta, Board Chairman	
P.O. Box 68	
Schenectady, New York 12306	
	License No.
	Agent for services of process:
(If OWNER is a public body, attached evidence of authority to sign and resolution or other documents authorizing execution of Agreement).	(If CONTRACTOR is a corporation, attach evidence of authority to sign).

CERTIFICATE OF ATTORNEY - OWNER

I, the undersigned
the duly authorized and acting legal representative of
The City of Schenectady Industrial Development Agency
do hereby certify that I have examined the foregoing contract and the Surety Bond attached thereto and the
manner of execution thereof, and that I am of the opinion that each of the aforesaid agreements has been
executed by the proper representatives, and that said representatives have respectively the full power and
authority to execute said agreements on behalf of the respective parties named therein, and that the
foregoing agreements constitute valid and legally binding obligations upon the parties executing the same in
accordance with the terms, conditions, and provisions thereof.
Signed:
Title:
Date:

AFFIDAVIT - WORKER'S COMPENSATION

State of	SS:
County of	55:
of	
being duly sworn, deposes and says that he	now carries or that he has applied for a Worker's Compensation in the preceding contract, and to comply with the provisions
	Signed:
Subscribed and sworn to before me	
this day of , 2	2004.
Notary Public	

CONSTRUCTION PERFORMANCE BOND

Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

CONTRACTOR (Name and Address):	SURETY (Name and Principal Place of Business):
OWNER (Name and Address):	
CONSTRUCTION CONTRACT Date: Amount: Description (Name and Location):	
BOND Date (Not earlier than Construction Contract Date): Amount: Modifications to this Bond Form:	
CONTRACTOR AS PRINCIPAL Company: (Corp Seal) Signature: Name and Title:	SURETY Company: (Corp Seal) Signature: Name and Title:
CONTRACTOR AS PRINCIPAL Company: (Corp Seal) Signature: Name and Title:	SURETY Company: (Corp Seal) Signature: Name and Title:

- 1. The Contractor and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.
- 2. If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except to participate in conferences as provided in Subparagraph 3.1.
- 3. If there is no Owner Default, the Surety's obligation under this Bond shall arise after:
 - 3.1 The Owner has notified the Contractor and the Surety at its address described in Paragraph 10 below, that the Owner is considering declaring a Contractor Default and has requested and attempted to arrange a conference with the Contractor and the Surety to be held not later than fifteen days after receipt of such notice to discuss methods of performing the Construction Contract. If the Owner and the Contractor and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any subsequently to declare a Contractor Default; and
 - 3.2 The Owner has declared a Contractor Default and formally terminated the Contractor's right to complete the contract. Such Contractor Default shall not be declared earlier than twenty days after the Contractor and the Surety have received notice as provided in Subparagraph 3.1; and
 - 3.3 The Owner has agreed to pay the Balance of the Contract Price to the Surety in accordance with the terms of the Construction Contract or to a contractor selected to perform the Construction Contract in accordance with the terms of the contract with the Owner.
- 4. When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:
 - 4.1 Arrange for the Contractor, with Consent of the Owner, to perform and complete the Construction Contract; or
 - 4.2 Undertake to perform and complete the Construction Contract itself, through its agents or through independent contractors; or
 - 4.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for Contract or performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and the Contractor selected with the Owners's concurrence, to be secured with performance and payment bonds executed by qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 6 in excess of the Balance of the Contract Price incurred by the Owner resulting from the Contractor's default; or
 - 4.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances.
 - After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, tender payment therefore to the Owner: or
 - Deny liability in whole or in part and notify the Owner citing reasons therefor.
- 5. If the Surety does not proceed as provided in Paragraph 4 with reasonable promptness, the Surety shall be deemed to be in default on this bond fifteen days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Subparagraph 4.4, and the Owner refuses the payment tendered or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.
- 6. After the Owner has terminated the Contractor's right to complete the Construction Contract, and if the Surety elects to act under Subparagraph 4.1, 4.2, or 4.3 above, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. To the limit of the amount of

Contract Price to mitigation of costs and damages on the Construction Contract, the Surety is obligated without duplication for:

- 6.1 The responsibilities of the Contractor for correction of defective work and completion of the Construction Contract:
- 6.2 Additional legal, design professional and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 4; and
- 6.3 Liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of he Contractor.
- 7. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, or successors.
- 8. The Surety hereby waives notice of any change, include changes of time to the Construction Contract or to related subcontracts, purchase orders and other obligations.
- 9. Any proceeding, legal, or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this Paragraph are void or prohibited by the law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.
- 10. Notice to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the signature page.
- 11. When this bond has been furnished to comply with a statutory or other legal requirements in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirements shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirements shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

12. Definitions.

- 12.1 Balance of the Contract Price: The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made, including allowance to the Contractor of any amount received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduce by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.
- 12.2 Construction Contract: The agreement between the Owner and the Contractor identified on the signature page, including all Contract Documents and changes thereto.
- 12.3 Contractor Default: Failure of the Contractor, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Construction Contract.
- 12.4 Owner Default: Failure of the Owner, which as neither been remedied nor waived, to pay the Contractor as required by the Construction Contract or to perform and complete or comply with other terms thereof.

CONSTRUCTION PAYMENT BOND

Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.					
SURETY (Name and Principal Place of Business):					
 -					
SURETY Company: (Corp Seal) Signature: Name and Title:					
SURETY Company: (Corp Seal) Signature: Name and Title:					

- 1. The Contractor and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner to pay for labor, materials, and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference.
- 2. With respect to the Owner, this obligation shall be null and void if the Contractor:
 - Promptly makes payment, directly or indirectly, for all sums due Claimants, and
 - 2.2 Defends, indemnifies and hold harmless the Owner from all claims, demands, liens or suits by any person or entity who furnished labor, materials, or equipment for use in the performance of the Construction Contract, provided the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 12) of any claims, demands, liens or suits and tendered defense of such claims, demands liens or suits to the Contractor and the Surety, and provided there is not Owner Default.
- 3. With respect to Claimants, this obligation shall be null and void if the Contractor promptly makes payment, directly or indirectly, for all sums due.
- 4. The Surety shall have no obligation to Claimants under this Bond until:
 - 4.1 Claimants who are employed by or have a direct contract with the Contractor have given notice to the Surety (at the address described in Paragraph 12) and sent a copy, or notice thereof, to the Owner, stating that a claim is being made under this Bond and, with substantial accuracy, the amount of the claim.
 - 4.2 Claimants who do not have a direct contract with the Contractor:
 - Have furnished written notice to the Contractor and sent a copy, or notice thereof, to the Owner, within 90 days after having last performed labor or last furnished materials or equipment included in the claim stating, with substantial accuracy, the amount of the claim and the name of the party to whom the materials were furnished or supplied or for whom the labor was done or performed; and
 - Have either received a rejection in whole or in part from the Contractor, or not received within 30 days of furnishing the above notice any communication from the Contractor by which the Contractor has indicated the claim will be paid directly or indirectly; and
 - Not having been paid within the above 30 days, have sent a
 written notice to the Surety (at the address described in
 Paragraph 12) and sent a copy, or notice thereof, to the
 Owner stating that a claim is being made under this Bond
 and enclosing a copy of the previous written notice furnished
 to the Contractor.
- 5. If a notice required by Paragraph 4 is given to the Contractor to the Surety, that is sufficient compliance.
- 6. When the Claimant has satisfied the conditions of Paragraph 4, the Surety shall promptly and at the Surety's expense take the following actions:
 - 5.1 Send an answer to the Claimant, with a copy to the Owner, within 45 days after receipt of the claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed.
 - 6.2 Pay or arrange for payment of any undisputed amounts.
- 7. The Surety's total obligation shall not exceed the amount of this Bond, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.
- 8. Amount owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any , under any Construction Performance Bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract area dedicated to satisfy obligations of the Contractor and the Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.
- 9. The Surety shall not be liable to the Owner, Claimants, or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for payment of any costs or expenses of any

claimant under this Bond, and shall have under this Bond no obligations to make payments to give notices on behalf of, or otherwise have obligations to make payments to, give notices on behalf of, or otherwise have obligations to Claimants under this Bond.

- 10. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.
- 11. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the location in which the work or part of the work is located or after the expiration of one year from the date (1)on which the Claimant gave the notice required by Subparagraph 4.1 or Clause 4.2 (iii), or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.
- 12. Notice to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the signature page. Actual receipt of notice by Surety, the Owner, or the Contractor, however accomplished, shall be sufficient compliance as of the date received at the address shown on the signature page.
- 13. When this bond has been furnished to comply with a statutory or other legal requirements in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirements shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirements shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory bond and not as a common law bond.
- 14. Upon request by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor shall promptly furnish a copy of this Bond or shall permit a copy to be made.

12. Definitions.

- 12.1 Claimant: An individual or entity have a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials, or equipment for use in the performance of the Contract. The intent of this Bond shall be to include without limitation in the terms "labor, materials, or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment used in the Construction, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.
- 12.2 Construction Contract: The agreement between the Owner and the Contractor identified on the signature page, including all Contract Documents and changes thereto.
- 12.3 Owner Default: Failure of the Owner, which as neither been remedied nor waived, to pay the Contractor as required by the Construction Contract or to perform and complete or comply with other terms thereof.

•			,

A. C. California

State of the state

of viscosity of

ARTICLE — 1 DEFINITIONS

GENERAL

Wherever used in these General Conditions or in the other Contract Documents, the following terms have the meanings indicated which are applicable to both the singular and plural thereof:

ADDENDA

Written or graphic instruments issued prior to the opening of Bids which clarify, correct or change the bidding documents or the Contract Documents.

2. AGREEMENT

The written agreement between OWNER and CONTRAC-TOR covering the Work to be performed; other Contract Documents are attached to the Agreement and made a part thereof as provided therein.

3. APPLICATION FOR PAYMENT

The form accepted by ENGINEER which is to be used by CONTRACTOR in requesting progress or final payments and which is to include such supporting documentation as is required by the Contract Documents.

4. BII

The offer or proposal of the Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

5. BONDS

Bid, performance and payment bonds and other instruments of security.

6. CHANGE ORDER

A document which is signed by CONTRACTOR and OWNER and authorizes an addition, deletion or revision in the Work, or an adjustment in the Contract Price or the Contract Time issued on or after the Effective Date of the Agreement.

7. CONTRACT DOCUMENTS

The Agreement, Addenda (which pertain to the Contract Documents), CONTRACTOR'S Bid post-Bid (including documentation accompanying the Bid and any post-Bid documentation submitted prior to the Notice of Award) when attached as an exhibit to the Agreement, the Bonds, these General Conditions, the Supplementary Conditions, the specifications and the Drawings as the same are more specifically identified in the Agreement, together with all Amendments, Modifications and Supplements issued pursuant to paragraphs 3.4 and 3.5 on or after the Effective Date of the Agreement.

8. CONTRACT PRICE

The moneys payable by OWNER to CONTRACTOR under the Contract Documents as stated in the Agreement (subject to the provisions of paragraph 11.9 in the case of Unit Price Work).

9. CONTRACT TIME

The number of days (computed as provided in paragraph 16.2) or the date stated in the Agreement for the completion of the Work.

10. CONTRACTOR

The person, firm or corporation with whom OWNER has entered into the Agreement.

11. DAY

A calendar day of twenty-four (24) hours measured from midnight to the next midnight.

12. DEFECTIVE

An adjective which when modifying the word Work refers to 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 OWNER at Substantial Completion in accordance with paragraph 14.8 or 14.10).

13. DRAWINGS

The drawings which show the character and scope of the Work to be performed and which have been prepared or approved by ENGINEER and are referred to in the Contract Documents.

14. EFFECTIVE DATE OF THE AGREEMENT

The date indicated in the Agreement on which it becomes effective, but if such date is not indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.

15. ENGINEER

The person, firm or corporation named as such in the Agreement

16. FIELD ORDER

A written order issued by ENGINEER which orders minor changes in the Work in accordance with paragraph 9.5 but which does not involve a change in the Contract Price or the Contract Time.

17. GENERAL REQUIREMENTS

Sections of Division 1 of the specifications.

18. LAWS AND REGULATIONS; LAWS OR REGULATIONS

Laws, rules, regulations, ordinances, codes and/or orders.

19. NOTICE OF AWARD

The written notice by OWNER to the apparent successful bidder stating that upon compliance by the apparent successful Bidder with the conditions precedent enumerated therein, within the time specified, OWNER will sign and deliver the Agreement.

20. NOTICE TO PROCEED

A written notice given by OWNER to CONTRACTOR (with a copy to ENGINEER) fixing the date on which the contract Time will commence to run and on which CONTRACTOR shall start to perform CONTRACTOR'S obligations under the Contract Documents.

21. OWNER

The public body or authority, corporation, association, firm or person with whom CONTRACTOR has entered into the Agreement and for whom the work is to be provided.

22. OWNER'S REPRESENTATIVE

The authorized representative of OWNER who is assigned to the site or any part thereof.

23. 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.

24. PROJECT

The total construction of which the Work to be provided under the Contract Documents may be the whole or a part as indicate elsewhere in the Contract Documents.

25. PROJECT MANUAL

The manual prepared by the ENGINEER for a project, including the bidding requirements, conditions of the contract, and the technical specifications.

26. PROJECT REPRESENTATIVE

The authorized representative of ENGINEER who is assigned to the site or any part thereof.

27. SHOP DRAWINGS

All Drawings, diagrams, illustrations, schedules and other data which are specifically prepared by CONTRACTOR, a Subcontractor, manufacturer, fabricator, supplier or distributor to illustrate some portion of the Work and all illustrations, brochures, standard schedules, performance charts, instructions, diagrams and other information prepared by a manufacturer, fabricator, supplier or distributor and submitted by CONTRACTOR to illustrate material or equipment for some portion of the Work.

28. 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.

29. SUBCONTRACTOR

An individual, firm or corporation having a direct contract with CONTRACTOR or with any other Subcontractor for the performance of a part of the Work at the site.

30. SUBSTANTIAL COMPLETION

The work (or a specified part thereof) has progressed to the point where, in the opinion of ENGINEER as evidenced by his definitive certificate of Substantial Completion, is sufficiently complete, in accordance with the Contract Documents, so that the Work (or specified part) can be utilized for the purposes for which it was intended; or if there be no such certificate issued, when final payment is due in accordance with paragraph 14.13. The terms "substantially complete" and "substantially completed" as applied to any Work refer to Substantial Completion thereof.

31. WORK

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 and incorporating materials and equipment into the construction, all as required by the Contract Documents.

ARTICLE — 2 PRELIMINARY MATTERS

DELIVERY OF BONDS:

2.1 When CONTRACTOR delivers the executed Agreements to OWNER, CONTRACTOR shall also deliver to OWNER such Bonds as CONTRACTOR may be required to furnish in accordance with paragraph 5.1.

COPIES OF DOCUMENTS:

2.2 OWNER shall furnish to CONTRACTOR up to ten copies (unless otherwise specified in the Supplementary conditions) of the Contract Documents as are reasonably necessary for the execution of the Work. Additional copies will be furnished, upon request, at the cost of reproduction.

COMMENCEMENT OF CONTRACT TIME: NOTICE TO PROCEED

2.3 The Contract Time will commence to run on the thirtieth (30) day after the effective date of the Agreement, or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed; but in no event shall the Contract Time commence to run later than the seventy-fifth (75) day after the day of Bid opening or the thirtieth (30) day after the effective date of the Agreement. A Notice to Proceed may be given at any time within thirty (30) days after the effective date of the Agreement.

STARTING THE PROJECT:

2.4 CONTRACTOR shall start to perform the Work on the date when the Contract Time commences to run, but no Work shall be done at the site prior to the date on which the Contract Time commences to run.

BEFORE STARTING CONSTRUCTION:

- 2.5 Before undertaking each part of the Work, CONTRACTOR shall carefully study and compare the Contract Documents and check and verify pertinent figures shown thereon and all applicable field measurements. CONTRACTOR shall promptly report in writing to ENGINEER any conflict, error or discrepancy which CONTRACTOR may discover; however, CONTRACTOR shall not be liable to OWNER or ENGINEER for failure to report any conflict, error or discrepancy in the Drawings or Specifications, unless CONTRACTOR has actual knowledge thereof or should reasonably have known thereof.
- 2.6 Within ten (10) days after the effective date of the Agreement (unless otherwise specified in the General Requirements), CONTRACTOR shall submit to ENGINEER for review and acceptance an estimated progress schedule indicating the starting and completion dates of the various stages of the Work, a preliminary schedule of Shop Drawing submissions, and a preliminary schedule of values of the Work.
- 2.7 Before any Work at the site is started, CONTRACTOR shall deliver to OWNER, with a copy to ENGINEER, certificates (and other evidence of insurance requested by OWNER) which CONTRACTOR is required to purchase.

PRE-CONSTRUCTION CONFERENCE:

2.8 Within twenty (20) days after the effective date of the Agreement, but before CONTRACTOR starts the Work at the site, a conference may be held for review and acceptance of the schedules referred to in paragraph 2.6, to establish procedures for handling Shop Drawings and other submittals and for processing Applications for Payment, and to establish a working understanding among the parties as to the Work.

ARTICLE — 3 CONTRACT DOCUMENTS: INTENT AND REUSE

INTENT:

- 3.1 The Contract Documents comprise the entire Agreement between OWNER and CONTRACTOR concerning the Work. They may be altered only by a written Modification.
- 3.2 The Contract Documents are complementary; what is called for by one is as if called for by all. If during the performance of the Work, CONTRACTOR finds a conflict, error or a discrepancy in the Contract Documents, he shall report it to ENGINEER in writing at once and before proceeding with the Work affected thereby; however, CONTRACTOR shall not be liable to OWNER or ENGINEER for failure to report any conflict, error or discrepancy in the Specifications or Drawings unless CONTRACTOR had actual knowledge thereof or should reasonably have known thereof.
- It is the intent of the Specifications and Drawings to describe a complete project (or part thereof) to be constructed in accordance with the Contract Documents. Any Work that may reasonably be inferred from the Specifications or Drawings as being required to produce the intended result shall be supplied whether or not it is 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 such meaning. Reference to standard specifications, manuals or codes of any technical society, organization or association, or to the code of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard specification, manual or code in effect at the time of opening of Bids (or, on the effect date of the Agreement if there were no Bids), except as may be otherwise specifically stated. However, no provision of any referenced standard specification, manual or code (whether or not specifically incorporated by reference in the Contract Documents) shall change the duties and responsibilities of OWNER, CONTRACTOR or ENGINEER, or any of their agents or employees from those set forth in the Contract Documents. Clarifications and interpretations of the Contract Documents shall be issued by ENGINEER as provided for in paragraph 9.3.
- 3.4 The Contract Documents will be governed by the law of the place of the project.

REUSE OF DOCUMENTS:

3.5 Neither CONTRACTOR nor any Subcontractor, manufacturer, fabricator, supplier or distributor shall have or acquire any title to ownership rights in any of the Drawings, Specifications or other documents (or copies of any thereof) prepared by or bearing the seal of ENGINEER; and they shall not reuse any of them on extensions of the Project or any other project without written consent of OWNER and ENGINEER and specific written verification or adaptation by ENGINEER.

ARTICLE — 4 AVAILABILITY OF LANDS; PHYSICAL CONDITIONS; REFERENCE POINTS

AVAILABILITY OF LAND:

4.1 Owner shall furnish, as indicated in the Contract Documents, the lands upon which the Work is to be performed, rights-of-way for access thereto, and such other lands which are designated for the use of CONTRACTOR. Easements for permanent structures or permanent changes in existing facilities will be obtained and paid for by OWNER, unless otherwise provided in the Contract Documents. If CONTRACTOR believes that any delay in OWNER'S furnishing these lands or easements entitles him to an extension of the Contract Time, CONTRACTOR may make a claim therefore as provided in Article 12. CONTRACTOR shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

PHYSICAL CONDITIONS — INVESTIGATIONS AND REPORTS:

4.2 Reference is made to the Section entitled "Information Available to Bidders" for identification of those reports of investigations and tests of subsurface and latent physical conditions at the site or otherwise affecting cost, progress or performance of the Work which have been relied upon by ENGI-NEER in preparation of the Drawings and Specifications. Such reports are not guaranteed as to accuracy or completeness and are not part of the Contract Documents.

UNFORESEEN PHYSICAL CONDITIONS:

4.3 CONTRACTOR shall promptly notify OWNER and engineer in writing of any subsurface or latent physical conditions at the site or in an existing structure differing materially from those indicated or referred to in the Contract Documents. ENGINEER will promptly review those conditions and advise OWNER in writing if further investigation or tests are necessary. Promptly thereafter, OWNER shall obtain the necessary additional investigations and tests and furnish copies to ENGINEER and CONTRACTOR. If ENGINEER finds there are subsurface or latent physical conditions which differ materially from those intended in the Contract Documents, and which could not reasonably have been anticipated by CONTRACTOR, a Change Order shall be issued incorporating the necessary revisions.

General Conditions

REFERENCE POINTS:

4.4 OWNER shall provide engineering surveys for construction to establish reference points which in his judgment are necessary to enable CONTRACTOR to proceed with the Work. CONTRACTOR shall be responsible for laying out the Work (unless otherwise specified in the General Requirements), shall protect and preserve the established reference points and shall make no changes or relocations without the prior written approval of OWNER. CONTRACTOR shall report to ENGINEER whenever any reference point is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for replacement or relocation of such reference points by professionally qualified personnel.

ARTICLE — 5 BONDS AND INSURANCE

PERFORMANCE AND OTHER BONDS:

- CONTRACTOR shall furnish performance and 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 at least until one year after the date of final payment, except as otherwise provided by law. CONTRACTOR shall also furnish such other Bonds as are required by the Supplementary Conditions. All Bonds shall be in the forms prescribed by the bidding documents or Supplementary Conditions and be executed by such Sureties as (i) are licensed to conduct business in the state where the Project is located, and (ii) 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 in circular 570 (amended) by the Audit Staff Bureau of Accounts, U.S. Treasury Department. All Bonds signed by an agent must be accompanied by a certified copy of the authority to act.
- 5.2 If the Surety on any Bond furnished by CONTRACTOR is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the project is located or it ceases to meet the requirements of clauses (i) and (ii) of paragraph 5.1, CONTRACTOR shall within five (5) days thereafter substitute another BOND and Surety, both of which shall be acceptable to OWNER.

COMPENSATION AND LIABILITY INSURANCE:

5.3 The CONTRACTOR shall at his own cost and expense take out and maintain for the life of the Contract, and cause his Subcontractors to obtain and maintain for the life of their subcontracts, insurance of the following types: "Statutory Workmen's Compensation and Employer's Liability", "Comprehensive General", "Bodily Injury Liability and Property Damage", and "Builder's Risk". CONTRACTOR shall provide OWNER'S Protective Liability Insurance and "All Risk" Insurance on the Builder's Risk Form in the amounts shown below. CONTRACTOR'S Liability Insurance and the OWNER's Protective Liability Insurance specified above shall be provided in not less than the following amounts:

a. Injury or death to more than one person or single occurrence	
b. Premises — Operations	\$1,000,000
c. Explosion and Collapse Hazard	\$1,000,000
d. Underground Hazzard	\$1,000,000
e. Products/Completed Operations Hazard	\$1,000,000
f. Contractual Insurance	\$1,000,000
g. Property Damage - Broad Form	\$1,000,000
b. Property Damage in account of all occurrences	\$1,000,000
i. Independent Contractors	\$1,000,000
j. Personal Injury	\$1,000,000
Contractor's Vehicle Insurance as follows:	
_1. Injury or death to one person	\$1,000,000
2. Injury or death to more than one person or a single occurrence	e\$1,000,000
3. Property Damage	\$1,000,000
4. Business Auto Liability	

An Umbrella Policy may be used to meet the above limits. All policies shall be drawn to cover a period of not less than one (1) year from the date of issue. Builder's Risk — It shall be written in the name of the OWNER, CONTRAC-TOR and SUBCONTRACTOR as their interest may appear. It shall be written in the amount of the Contract Bid Price with no more than a \$500 deductible. The CONTRACTOR shall be responsible for any deductible amounts. The insurance shall continue until final acceptance of the project by the OWNER. The OWNER and ENGINEER shall be named as additional insured on the liability policies listed above. Before signing of the Contract, all certificates shall be submitted to the OWNER for approval. Each certificate shall have endorsed thereon, "NO cancellation of or change in this policy shall become effective until after thirty (30) days' notice by registered mail", addressed to the OWNER. If, at any time, any of the said policies shall be or become unsatisfactory to the OWNER as to form or substance, or, if a company issuing any such policy shall be or become unsatisfactory to the OWNER, the CONTRACTOR shall promptly obtain a new policy and submit the same to the OWNER for approval and submit certificate thereof as herein above provided. If the CONTRACTOR does not obtain the insurance required by this contract, the OWNER should have the right to obtain the required insurance at the CONTRACTOR'S expense.

Failure of the CONTRACTOR to take out/or maintain, or the taking out and/or maintenance of any required insurance, shall not relieve the CONTRACTOR from any liability under the Contract, nor shall the insurance requirements be construed to conflict with the obligations of the concerning indemnification. In the event that claims in excess of the amounts provided by insurance are filed by reason of any operations under the Contract, the amount of excess of such claims, or any portion thereof, may be withheld from payment due or to become due the CONTRACTOR until such time as the CONTRACTOR shall furnish such additional security covering such claims as may be determined by the OWNER. To the fullest extent permitted by law, the CON-TRACTOR shall indemnify and hold harmless the OWNER and the ENGINEER and their agents and employees from and against all claims, damages, losses and expenses including but not limited to attorney's fees arising out of or resulting from the performance of the Work, provided that any such claim, damage, loss or expense (a) is attributable to bodily injury, sickness, disease or death, or to injury or to destruction of tangible property (other than the Work itself) including the loss of use resulting therefrom and (b) is

caused in whole or in part by any negligent act or omission of CONTRACTOR, any SUBCONTRACTOR, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder. In any and all claims against the OWNER or ENGINEER or any of their agents or employees by any employee of CON-TRACTOR, any SUBCONTRACTOR, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation under the above paragraph shall not be limited in any way by a limitation on the amount of type of damages, compensation or benefits payable by or for CONTRACTOR or any SUBCONTRACTOR under Worker's or Workmen's Compensation Acts, disability benefit acts or other employee benefits acts.

CONTRACTUAL LIABILITY INSURANCE:

5.4 The comprehensive general liability insurance required by paragraph 5.3 will include contractual liability insurance applicable to CONTRACTOR'S obligations under paragraphs 6.30 and 6.31.

PROPERTY INSURANCE:

5.5 OWNER shall not be responsible for purchasing and maintaining any property insurance to protect the interest of CONTRACTOR or SUBCONTRACTORS in the Work to the extent of any deductible amounts that are provided in the Supplementary Conditions. If CONTRACTOR wishes property insurance coverage within the limits of such amounts, CONTRACTOR may purchase and maintain it at his own expense.

WAIVER OF RIGHTS:

5.6 OWNER and CONTRACTOR waive all rights against each other and the subcontractors and their agents and employees and against ENGINEER and separate Contractors (if any) and their Subcontractor's agents and employees, for damages caused by fire or other perils to the extent covered by insurance provided under paragraph 5.5 or any other property insurance CONTRACTOR, and CONTRACTOR shall require similar written waivers from such Subcontractor (in accordance with paragraph 6.11 as applicable); each such waiver will be in favor of all other parties enumerated in this paragraph.

RECEIPT AND APPLICATION OF PROCEEDS:

- 5.7 Any insured loss under the policies of insurance required by paragraph 5.5 shall be adjusted with OWNER and made payable to OWNER as trustee for the insured, as their interests may appear, subject to the requirements of any applicable mortgage clause and of paragraph 5.8. OWNER shall deposit in a separate account any money so received, and he shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof and the Work and the cost thereof covered by an appropriate Change Order.
- 5.8 OWNER as trustee shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within fifteen (15) days after the occurrence of loss to OWNER'S exercise of this power. If such objection be made, OWNER as trustee shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If required in writing by any party in interest, OWNER as trustee, shall upon the occurrence of an insured loss, give bond for the proper performance of his duties.

ACCEPTANCE OF INSURANCE:

5.9 If OWNER has any objection to the coverage afforded by or other provisions of the insurance required to be purchased and maintained by CONTRACTOR in accordance with paragraphs 5.3 and 5.4 on the basis of its not complying with the Contract Documents, OWNER will notify CONTRACTOR in writing thereof within ten (10) ten working days with the Contract Documents.

PARTIAL UTILIZATION -- PROPERTY INSURANCE:

5.10 If OWNER finds it necessary to occupy or use a portion of portions of the Work, such use or occupancy may be accomplished in accordance with paragraph 14.10; provided that no such use or occupancy shall commence before the insurers providing the property insurance have acknowledged notice thereof and in writing effected the changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or lapse on account of any such partial use or occupancy.

ARTICLE — 6 CONTRACTOR'S RESPONSIBILITIES

SUPERVISION AND SUPERINTENDENCE:

- 6.1 CONTRACTOR shall supervise and direct the Work 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 solely responsible for the means, methods, techniques, sequences and procedures of construction, but CONTRACTOR shall not be solely 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 complies accurately with the Contract Documents.
- 6.2 CONTRACTOR shall keep on the Work at all times during its progress a competent resident superintendent, who shall not be replaced without written notice to OWNER and ENGINEER except under extraordinary circumstances. 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.

LABOR, MATERIALS AND EQUIPMENT:

6.3 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 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 Supplementary Conditions, all Work at the site shall be performed during regular working hours, and CONTRACTOR will not permit overtime work or the performance of Work on Saturday, Sunday or any legal holiday without OWNER's written consent given after prior written notice to ENGINEER.

General Conditions

- 6.4 CONTRACTOR shall furnish all materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water and sanitary facilities and all other facilities and incidentals necessary for the execution, testing, initial operation and completion of the Work, unless otherwise specified in the General Requirements.
- 6.5 All materials and equipment shall be of good quality and new, except as otherwise provided in the Contract Documents. If required by ENGINEER, CONTRACTOR shall furnish satisfactory evidence (including reports of required tests) as to the kind and quality of materials and equipment.
- 6.6 All materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with the instructions of the applicable manufacturer, fabricator, supplier or distributor, except as otherwise provided in the Contract Documents.

EQUIVALENT MATERIALS AND EQUIPMENT:

- 6.7 Whenever materials or equipment are specified or described in the Drawings or Specifications by using the name of a proprietary item or the name of a particular manufacturer, fabricator, supplier or distributor, the naming of the item is intended to establish the type, function and quality required. Unless the name is followed by words indicating that no substitution is permitted, materials or equipment of other manufacturers, fabricators, suppliers or distributors 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 to that named. The procedure for review by ENGINEER will be as set forth in paragraph 6.7.1 below as supplemented in the General Requirements.
- 6.7.1 Requests for review of substitute items of material and equipment will not be accepted by Engineer from anyone other than CONTRACTOR If CONTRACTOR wishes to furnish or use a substitute item of material or equipment CONTRACTOR shall make written application to ENGINEER for acceptance thereof, certifying that the proposed substitute will perform adequately the functions called for by the general design, be similar and of equal substance to that specified and be suited to the same use and capable of performing the same function' as that specified. The application will state whether or not acceptance of the substitute or use in the Work will require a change in the Drawings or Specifications to adapt the design to the substitute and whether or not incorporation or use of the substitute in connection with the Work is subject to payment of any license fee or royalty. All variations of the proposed substitute from that specified shall be identified in the application and available maintenance, repair and replacement service will be indicated.

The application will also contain an iternized estimate of all costs or savings that will result directly or indirectly from acceptance of such substitute, including costs of redesign and claims of other contractors affected by the resulting change, all of which shall be incurred by the Contractor. The ENGINEER will considered all of the above in evaluating the proposed substitute. ENGINEER may require CONTRACTOR to furnish at CONTRACTOR'S expense additional data about the proposed substitute. ENGINEER will be the sole judge of acceptability, and no substitute will be ordered or installed without ENGINEER'S prior written acceptance. OWNER may require CONTRACTOR to furnish at CONTRACTOR'S expense a special performance guarantee or other surety with respect to any substitute.

CONCERNING SUBCONTRACTORS:

- 6.8 CONTRACTOR shall not employ any Subcontractor or other person or organization (including those who are to furnish the principal items of materials or equipment) whether initially or as a substitute, against whom OWNER or ENGINEER may have reasonable objection. A Subcontractor or other person or organization identified in writing to OWNER and ENGINEER by CONTRACTOR prior to the Notice of Award and not objected to in writing by OWNER or ENGINEER prior to the Notice of Award will be deemed acceptable to OWNER and ENGINEER. Acceptance of any Subcontractor, other person or organization by OWNER or ENGINEER shall not constitute a waiver of any rights of OWNER or ENGINEER to reject defective Work. If OWNER or ENGINEER after due investigation has reasonable objection to any Subcontractor, other person or organization proposed by CONTRACTOR after the Notice of Award, CONTRACTOR shall submit an acceptable substitute and the Contract Price shall be increased or decreased by the difference in cost occasioned by such substitution, and an appropriate Change Order shall be issued. CONTRACTOR shall not be required to employ any Subcontractor, other person or organization against whom CONTRACTOR has reasonable objection.
- 6.9 CONTRACTOR shall be fully responsible for all acts and omissions of his Subcontractors and of persons and organizations directly or indirectly employed by them and of persons and organization for whose acts any of them may be liable to the same extent that CONTRACTOR is responsible for the acts and omissions of person directly employed by CON-TRACTOR Nothing in the Contract Documents shall create any contractual relationship between OWNER or ENGINEER and any Subcontractor or other person or organization having a direct contact with CONTRACTOR, nor shall it create any obligation on the part of OWNER or ENGINEER to pay or to see to the payment of any monies due any Subcontractor or other person or organization, except as may otherwise be required by law. OWNER or ENGINEER may furnish to any Subcontractor or other person organization, to the extent practicable, evidence of amounts paid to CONTRACTOR on account of specific Work done.
- 6.10 The divisions and sections of the Specifications and the identifications of any Drawings shall not control CONTRACTOR in dividing the Work among Subcontractors or delineating the Work to be performed by any specific trade.
- 6.11 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 the applicable terms, and conditions of the Contract Documents for the benefit of OWNER and ENGINEER and contains waiver provisions as required by paragraph 5.6. CONTRACTOR shall pay each Subcontractor a just share of any insurance monies received by CONTRACTOR on account of losses under policies issued pursuant to paragraphs 5.6 through 5.8.

PATENT FEES AND ROYALTIES:

6.12 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 or device is specified in the Contract Documents for use in the performance of the Work and if to the actual knowledge of OWNER or ENGINEER its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by OWNER in the Contract Documents. CONTRACTOR shall indemnify and hold harmless OWNER and ENGINEER and anyone directly or indirectly employed by either of them from and against all claims. damages, losses and expenses (including attorney's fees) arising out of any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product or device not specified in the Contract Documents, and shall defend all such claims in connection with any alleged infringement of such rights.

PERMITS:

6.13 Unless otherwise provided in the Supplementary Conditions, CONTRACTOR shall obtain and pay for all construction permits and licenses. 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. CONTRACTOR shall pay all charges of utility service companies for connections to the Work, and OWNER shall pay all charges of such companies for capital costs related thereto.

LAWS AND REGULATIONS:

6.14 CONTRACTOR shall give all notices and comply with all laws, ordinances, rules and regulations applicable to the Work If CONTRACTOR observes that the Specifications or Drawings are at variance therewith, CONTRACTOR shall give ENGINEER prompt written notice thereof, and any necessary changes shall be adjusted by an appropriate Modification. If CONTRACTOR performs any Work knowing or having reason to know that it is contrary to such laws, ordinances, rules and regulations, 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, ordinances, rules and regulations.

TAXES:

6.15 CONTRACTOR shall pay all sales, consumer, use and other similar taxes required to be paid by him in accordance with the law of the place of the Project.

USE OF PREMISES:

6.16 CONTRACTOR shall confine construction equipment, the storage of materials and equipment and the operations of workmen to areas permitted by laws, ordinances, permits or the requirements of the Contract Documents, and shall not unreasonably encumber the premises with construction equipment or other materials or equipment.

- 6.17 During the progress of the Work CONTRACTOR shall keep the premises free from accumulations of 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 occupancy by OWNER.
- 6.18 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.

RECORD DOCUMENTS:

- .6.19 CONTRACTOR shall keep one record copy of all Specifications, Drawings, Addenda, Modifications, Shop Drawings and samples at the site, in good order and annotated to show all changes made during the construction process. These shall be available to ENGINEER for examination and shall be delivered to ENGINEER for OWNER upon completion of work Change to be on a sepia provided by ENGINEER.

SAFETY AND PROTECTION:

- 6.20 CONTRACTOR shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work CONTRACTOR shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:
- 6.20.1 all employees on the Work and other persons who may be affected thereby,
- 6.20.2 all the work and all materials or equipment to be incorporated therein, whether in storage on or off the site, and
- 6.20.3 other property at the site or adjacent thereto; including but not limited to trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction. CONTRACTOR shall comply with all applicable laws, ordinances, rules, regulations and orders of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such safety and protection. CONTRACTOR shall notify owners of adjacent property and utilities when prosecution of the Work may affect them. All damage, injury or loss to any property referred to in Paragraph 6.20. 2 or 6.20.3 caused, directly or indirectly, in whole or in part, by CONTRACTOR, any Subcontractor or anyone directly employed by any of them or anyone for whose acts any of them may be liable, shall be remedied by 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 notice to OWNER and CONTRACTOR in accordance with paragraph 14.13 that the Work is acceptable.
- 6.21 CONTRACTOR shall designate a responsible member of his organization 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 OWNER.

EMERGENCIES:

6.22 In emergencies affecting the safety or protection of persons or the Work or property at the site or adjacent thereto, CON-TRACTOR, without special instruction or authorization from ENGINEER or OWNER, is obligated to act to prevent threatened damage, injury or loss. CONTRACTOR shall give ENGINEER prompt written notice of any significant changes in the Work or deviations from the Contract Documents caused thereby.

SHOP DRAWINGS AND SAMPLES:

- 6.23 After checking and verifying all field measurements, CONTRACTOR shall submit to ENGINEER for review in accordance with the accepted schedule of Shop Drawing submissions (see paragraph 2.8), five (5) copies (unless otherwise specified in the General Requirements) of all Shop Drawings, which shall have been checked by and stamped with the approval of CONTRACTOR and identified as ENGINEER may require. The data shown on the Shop Drawings will be complete with respect to dimensions, design criteria, materials of construction and like information to enable ENGINEER to review the information as required.
- 6.24 CONTRACTOR shall also submit to ENGINEER for review with such promptness as to cause no delay in Work, all samples required by the Contract Documents. All samples will have been checked by and stamped with the approval of CONTRACTOR, identified clearly as to material, manufacturer, any pertinent catalog numbers and the use for which intended.
- 6.25 At the time of each submission, CONTRACTOR shall in writing call ENGINEER'S attention to any deviations that the Shop Drawings or samples may have from the requirements of the Contract Documents.
- 6.26 ENGINEER will review with reasonable promptness Shop Drawings and samples, but ENGINEER'S review shall 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 means, methods, sequences, techniques or procedures of construction or to safety precautions or programs incident thereto. The review of a separate item as such will not indicate acceptance of the assembly in which item functions. CONTRACTOR shall make any corrections required by ENGINEER and shall return the required number of corrected copies of Shop Drawings and resubmit new samples for review. CONTRACTOR shall direct specific attention in writing to revisions other than the corrections called for by ENGINEER on previous submittals. CONTRACTOR'S stamp of approval on any Shop Drawing or sample shall constitute a representation to OWNER and ENGINEER that CONTRACTOR has either determined and verified all quantities, dimensions, field construction responsibility for doing so, and that CONTRACTOR has reviewed or coordinated each Shop Drawing or sample with the requirements of the Work and the Contract Documents.
- 6.27 Where a Shop Drawing or sample is required by the Specifications, no related Work shall be commenced until the submittal has been reviewed by ENGINEER.

6.28 ENGINEER'S review of Shop Drawings or samples shall not relieve CONTRACTOR from responsibility for any deviations from the Contract Documents unless CONTRACTOR has in writing called ENGINEER'S attention to such deviation at the time of submission and ENGINEER has given written concurrence to the specific deviation, nor shall any concurrence by ENGINEER relieve CONTRACTOR from responsibility for errors or omissions in the Shop Drawings.

CONTINUING THE WORK:

6.29 CONTRACTOR shall carry on the Work and maintain the progress schedule during all disputes or disagreements with OWNER. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as CONTRACTOR and OWNER may otherwise agree in writing.

INDEMNIFICATION

- 6.30 To the fullest extent permitted by law, CONTRACTOR shall indemnify and hold harmless OWNER and ENGINEER and their agents and employees from and against all claims, damages, losses and expenses including but not limited to attorneys' fees arising out of or resulting from the performance of the Work, provided that any such claim, damage, loss or expense (a) is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself) including the loss of use resulting therefrom and (b) is caused in whole or in part by any negligent act or omission of CONTRACTOR, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder.
- 6.31 In any and all claim against OWNER or ENGINEER or any of their agents or employees by any employee of CONTRACTOR, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation under paragraph 6.30 shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for CONTRACTOR or any Subcontractor under workers' or workmen's compensation acts, disability benefit acts or other employee benefit acts.
- 6.32 The obligations of CONTRACTOR under paragraph 6.30 shall not extend to the liability of ENGINEER, his agents or employees arising out of the preparation or approval of maps, drawings, opinions, reports, surveys, Change Orders, designs or specifications.

ARTICLE — 7 WORK BY OTHERS

7.1 OWNER may perform additional work related to the Project by himself, or have additional work performed by utility service companies, or let other direct contracts therefor which shall contain General Conditions similar to these. CONTRACTOR shall afford the utility service companies and the other contractors who are parties to such direct contracts (or OWNER, if OWNER is performing the additional work with OWNER'S employees) reasonable opportunity for the introduction and storage of materials and equipment and the execution of work, and shall properly connect and coordinate his Work with theirs.

- 7.2 If any part of CONTRACTOR'S Work depends for proper execution or results upon the work of any such other contractor or utility service company (or OWNER), CONTRACTOR shall inspect and promptly report to ENGINEER in writing any patent or apparent defects or deficiencies in such work that render it unsuitable for such proper execution and results. CONTRACTOR'S failure so 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.
- 7.3 CONTRACTOR shall do all cutting fitting and patching of his Work that may be required to make its several parts come together properly and integrate with such other work. CONTRACTOR shall not endanger any work of others by cutting excavation or otherwise altering their work and will only cut or alter their work with the written consent of ENGINEER and the others whose work will be affected.
- 7.4 If the performance of additional work by other contractors or utility service companies or OWNER was not noted in the Contract Documents, written notice thereof shall be given to CONTRACTOR prior to starting any such additional work. If CONTRACTOR believes that the performance of such additional work by OWNER or others involves additional expense to CONTRACTOR or requires an extension of the Contract Time, CONTRACTOR may make a claim therefor as provided in Articles 11 and 12.

ARTICLE — 8 OWNER'S RESPONSIBILITIES

- 8.1 OWNER shall issue all communications to CONTRACTOR through ENGINEER.
- 8.2 In case of termination of the employment of ENGINEER, OWNER shall appoint an ENGINEER against whom CONTRACTOR makes no reasonable objection, whose status under the Contract Documents shall be that of the former ENGINEER.
- 8.3 OWNER shall furnish the data required of OWNER under the Contract Documents promptly and shall make payments to CONTRACTOR promptly after they are due as provided in paragraphs 14.4 and 14.13.
- 8.4 OWNER'S duties in respect of providing lands and easements and providing engineering surveys to establish reference points are set forth in paragraphs 4.1 and 4.4. Paragraph 4.2 refers to OWNER'S identifying and making available to CONTRACTOR copies of reports of investigations and tests of subsurface and latent physical conditions at the site or otherwise affecting performance of the Work which have been relied upon by Engineer in preparing the Drawings and Specifications.
- 8.5 In connection with OWNER'S rights to request changes in the Work in accordance with Article 10.1 OWNER (especially in certain instances as provided in paragraph 10.4) is obligated to execute Change Orders.
- 8.6 OWNER'S responsibility in respect of certain inspections, tests and approvals is set forth in paragraph 13.4
 - 8.7 In connection with OWNER'S right to stop Work or suspend Work, see paragraphs 13.10 and 15.1. Paragraph 15.2 deals with OWNER'S right to terminate services of CONTRAC-TOR under certain circumstances.

ARTICLE — 9 ENGINEER'S STATUS DURING CONSTRUCTION

OWNER'S REPRESENTATIVE:

9.1 ENGINEER will be OWNER'S representative during the construction period. The duties and responsibilities and the limitations of authority of ENGINEER as OWNER'S representative during construction are set forth in the Contract Documents and shall not be extended without written consent of OWNER and ENGINEER.

VISITS TO SITE

- 9.2 ENGINEER will make visits to the site at intervals appropriate to the various stages of construction to observe the progress and quality of the executed Work and to determine, in general, if the Work is proceeding in accordance with the Contract Documents. ENGINEER will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. ENGINEER'S efforts will be
- directed toward providing for OWNER a greater degree of confidence that the completed Work will conform to the Contract Documents.

CLARIFICATIONS AND INTERPRETATIONS:

9.3 ENGINEER will issue with reasonable promptness such written clarifications or interpretations of the Contract Documents (in the form of Drawings or otherwise) as ENGINEER may determine necessary, which shall be consistent with or reasonably inferable from the overall intent of the Contract Documents. If CONTRACTOR believes that a written clarification or interpretation justifies an increase in the Contract Price or Contract Time, CONTRACTOR may make a claim therefor as provided in Article 11 or Article 12.

REJECTING DEFECTIVE WORK:

9.4 ENGINEER will have authority to disapprove or reject Work which is defective, and will also have authority to require special inspection or testing of the Work as provided in paragraph 13.9, whether or not the Work is fabricated, installed or completed.

SHOP DRAWINGS, CHANGE ORDERS AND PAYMENT:

- 9.5 In connection with ENGINEER'S responsibility for Shop Drawings and samples, see paragraph 6.23 through 6.28 inclusive.
- 9.6 In connection with ENGINEER'S responsibilities as to Change Orders, see Article 10, 11 and 12.
- 9.7 In connection with ENGINEER'S responsibilities in respect of Applications for Payment, etc., see Article 14.

PROJECT REPRESENTATION:

9.8 If OWNER and ENGINEER agree, ENGINEER will furnish a Project Representative to assist ENGINEER in observing the performance of the Work. The duties, responsibilities and limitations of authority of any such Project Representative and assistants will be as provided in the Conditions. If OWNER designates another agent to represent him at the site who is not ENGINEER'S agent or employee, the duties, responsibilities and limitations of authority of such other person will be as provided in the Conditions.

DECISIONS ON DISAGREEMENTS:

- 9.9 ENGINEER will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. Claims, disputes and other matters relating to the acceptability of the Work or the interpretation of the requirements of the Contract Documents pertaining to the execution and progress of the Work shall be referred initially to ENGINEER in writing with a request for a formal decision in accordance with this paragraph, which ENGINEER will render in writing within a reasonable time. Written notice of each such claim, dispute and other matter shall be delivered by the claimant to ENGINEER and the other party within forty-five (45) days of such occurrence unless ENGINEER allows an additional period of time to ascertain more accurate data. In his capacity as interpreter and judge ENGINEER will not show partiality to OWNER or CONTRACTOR and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity.
- 9.10 The rendering of a decision by ENGINEER pursuant to paragraph 9.9 with respect to any such claim, dispute or other matter (except any which have been waived by the making or acceptance of final payment as provided in paragraph 14.16) will be a condition precedent to any exercise by OWNER or CONTRACTOR of such rights or remedies as either may otherwise have under the Contract such rights or remedies as either may otherwise have under the Contract Documents or at law in respect of any such claim, dispute or other matter.

LIMITATIONS ON ENGINEER'S RESPONSIBILITIES:

- 9.11 Neither ENGINEER'S authority to act under this Article 9 or elsewhere in the Contract Documents nor any decision made by ENGINEER to CONTRACTOR, any Subcontractor, any manufacturer, fabricator, supplier or distributor, or any of their agents or employees or any other person performing any of the Work.
- 9.12 Whenever in the Contract Documents the terms "as ordered", "as directed", "as required", "as allowed" or terms of like effect or import are used, or the adjectives "reasonable", "suitable", "acceptable", "proper" or "satisfactory" or adjectives of like effect or import are used, to describe requirements, 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 never indicates that ENGINEER shall have authority to supervise or direct performance of the Work or authority to undertake responsibility contrary to the provisions of paragraphs 9.13 or 9.14.
- 9.13 ENGINEER will not be responsible for CONTRACTOR'S means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, and ENGINEER will not be responsible for CON-TRACTOR'S failure to perform the Work in accordance with the Contract Documents.
- 9.14 ENGINEER will not be responsible for the acts or omissions of CONTRACTOR or of any Subcontractors, or of the agents or employees of any CONTRACTOR or Subcontractor, or of any other persons at the site or otherwise performing any of the Work.

ARTICLE — 10 CHANGES IN THE WORK

- 10.1 Without invalidating the Agreement, OWNER may, at any time or from time to time, order additions, deletions or revision in the Work; these will be authorized by Change Order, CONTRACTOR shall proceed with the Work involved. All such Work shall be executed under the applicable conditions of the Contract Documents. If any 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 as provided in Article 11 or Article 12 on the basis of a claim made by either party.
- 10.2 ENGINEER may authorize minor changes in the Work not involving an adjustment in the Contract Price or the Contract Time, which are consistent with the overall intent of the Contract Documents. These may be accomplished by Field Order and shall be binding on OWNER, and also on CONTRACTOR who shall perform the change promptly. If CONTRACTOR believes that a Field Order justifies an increase in the Contract Price or Contract Time, CONTRACTOR may make a claim therefor as provided in Article 11 or Article 12.
- 10.3 Additional Work performed without authorization of a Change Order will not entitle contractor to an increase in the Contract Price or an extension of the Contract Time, except as in the case of an emergency as provided in paragraph 6.22 and except as provided in paragraphs 10.2 and 13.
- 10.4 OWNER shall execute appropriate Change Orders prepared by ENGINEER covering changes in the Work which are required by OWNER, or required because of unforeseen physical conditions or emergencies, or because of uncovering Work found not to be defective, or as provided in paragraphs 11.9 or 11.10, or because of any other claim of CONTRACTOR for a change in the Contract Time or the Contract Price which is recommended by ENGINEER.

ARTICLE — 11 CHANGE OF CONTRACT PRICE

- 11.1 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 his expense without change in the Contract Price.
- 11.2 The Contract Price may only be changed by a Change Order. Any claim for an increase in the Contract Price shall be based on written notice delivered to OWNER and ENGINEER within lifteen days of the occurrence of the event giving rise to the claim. Notice of the amount of the claim with supporting data shall be delivered within forty-five days of such occurrence unless ENGINEER allows an additional period of time to ascertain accurate cost data. All claims for adjustment in the Contract Price shall be determined by ENGINEER if OWNER and CONTRACTOR cannot otherwise agree on the amount involved. Any change in the Contract Price resulting from any such claim shall be incorporated in a Change Order.

General Conditions

- 11.3 The value of any Work covered by a Change Order or of any claim for an increase or decrease in the Contract Price shall be determined in one of the following ways:
- 11.3.1 Where the Work involved is covered by unit prices contained in the Contract Documents, by application of unit prices to the quantities of the items involved (subject to the provisions of paragraph 11.9).
- 11.3.2 By mutual acceptance of a lump sum.
- 11.3.3 On the basis of the Cost of the Work (determined as provided in paragraphs 11.4 and 11.5) plus a Contractor's Fee for overhead and profit (determined as provided in paragraph 11.6).

COST OF THE WORK

- 11.4 The term Cost of the Work means the sum of all costs necessarily incurred and paid by CONTRACTOR in the proper performance of the Work. Except as otherwise may be agreed to in writing by OWNER, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall include only the following items and shall not include any of the costs itemized in paragraph 11.5.
- 11.4.1 Payroll costs for employees in the direct employ of CONTRACTOR in the performance of the Work under schedules of job classifications agreed upon by OWNER and CONTRACTOR. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits which shall include social security contribution, unemployment, excise and payroll taxes, workers' or workmen's compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. Such employees shall include superintendents and foremen at the site. The expenses of performing Work after regular working hours, on Sunday or legal holidays, shall be included in the above to the extent authorized by OWNER.
- 11.4.2 Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and manufactures' field services required in connection therewith. All cash discounts shall accrue to CONTRACTOR unless OWNER deposits funds with CONTRACTOR with which to make payments, in which case the cash discount shall accrue to OWNER. All trade discounts, rebates and refunds, and all returns from sale of surplus materials and equipment shall accrue to OWNER and CONTRACTOR shall make provisions so that they be obtained.
- 11.4.3 Payments made by CONTRACTOR to the Subcontractors for Work performed by Subcontractors. If required by OWNER, CONTRACTOR shall obtain competitive bids from Subcontractors acceptable to CONTRACTOR and shall deliver such bids to OWNER who will then determine, with the advice of ENGINEER, which bids will be accepted. If a subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work Plus a Fee, the Subcontractor's Cost of the Work shall be determined in the same manner as CONTRACTOR'S Cost of the Work. All subcontracts shall be subject to the other provisions of the Contract Documents in so far as applicable.
- 11.4.4 Costs of special consultants (including, but not limited to, engineers, architects, testing laboratories, surveyors, lawyers and accountants) employed for services specifically related to the Work.

- 11.4.5 Supplemental costs including the following
- 11.4.5.1 The proportion of necessary transportation, travel and subsistence expenses of CONTRACTOR'S employees incurred in discharge of duties connected with the Work.
- 11.4.5.2 Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office and temporary facilities at the site and hand tools not owned by the workmen, which are consumed in the performance of the Work, and cost less market value of such items used but not consumed which remain the property of CONTRACTOR.
- 11.4.5.3 Rentals of all construction equipment and machinery and the parts thereof whether rented from CONTRACTOR or others in accordance with rental agreements approved by OWNER with the advice of ENGINEER, and the costs of transportation, loading unloading installation, dismantling and removal thereof—all in accordance with terms of said rental agreements. The rental of any such equipment, machinery or parts shall cease when the use thereof is no longer necessary for the Work.
- 11.4.5.4 Sales, use or similar taxes related to the Work, and for which CONTRACTOR is liable, imposed by any governmental authority.
- 11.4.5.5 Deposits lost for causes other than CONTRACTOR's negligence, royalty payments and fees for permits and licenses.
- 11.4.5.6 Losses and damages (and related expenses), not compensated by insurance or otherwise, to the Work or otherwise sustained by CONTRACTOR in connection with the execution of the Work, provided they have resulted from causes other than the negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of OWNER. No such losses, damages and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's Fee. If, however, any such loss or damage requires reconstruction and CONTRACTOR is placed in charge thereof, CONTRACTOR shall be paid for services a fee proportionate to that stated in paragraph 11.6.2.
- 11.4.5.7 The cost of utilities, fuel and sanitary facilities at the site.
- 11.4.5.8 Minor expenses such as telegrams, long distance telephone calls, telephone service at the site, expressage and similar petty cash items in connection with the Work.
- 11.4.5.9 Cost of premiums for additional Bonds and insurance required because of changes in the Work.

1,1

- 11.5 The term Cost of the Work shall not include any of the following:
- 11.5.1 Payroll costs and other compensation of CONTRACTOR'S officers, executives, principals (of partnership and sole proprietorships), general managers, engineers, architects, estimators, lawyers, auditors, accountants, purchasing and contracting agents, expeditors, time-keepers, clerks and other personnel employed by CONTRACTOR whether at the site or in his principal or a branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in subparagraph 11.4.1 all of which are to be considered administrative costs covered by the Contractor's Fee.
- 11.5.2 Expenses of CONTRACTOR'S principal and branch offices other than CONTRACTOR'S office at the site.
- 11.5.3 Any part of CONTRACTOR'S capital expenses, including interest on CONTRACTOR'S capital employed for the Work and charges against CONTRACTOR for delinquent payments.
- 11.5.4 Costs of premiums for all Bonds and for all insurance whether or not CONTRACTOR is required by the Contract Documents to purchase and maintain the same (except for additional Bonds and insurance required because of changes in the Work).
- 11.5.5 Costs due to the negligence of CONTRACTOR, and Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied and making good any damage to property.
- 11.5.6 Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in paragraph 11.4.

CONTRACTOR'S FEE:

- 11.6 The Contractor's Fee allowed to CONTRACTOR for overhead and profit shall be determined as follows:
- 11.6.1 A mutually acceptable fixed fee; or if none can be agreed upon,
- 11.6.2 A fee based on the following percentages of the various portions of the Cost of the Work:
- 11.6.2.1 For costs incurred under paragraphs 11.4.1 and 11.4.2, the Contractor's Fee shall be ten (10) percent.
- 11.6.2.2 For costs incurred under paragraph 11.4.3, the Contractor's Fee shall be give (5) percent; and if a subcontract is on the basis of Cost of the Work Plus a Fee, the maximum allowable to the Subcontractor as a fee for overhead and profit shall be ten (10) percent, and
- 11.6.2.3 No fee shall be payable on the basis of costs itemized under paragraphs 11.4.4, 11.4.5 and 11.5.
- 11.7 The amount of credit to be allowed by CONTRACTOR to OWNER for any such change which results in a net decrease in cost, will be the amount of the actual net decrease. When both additions and credits are involved in any one change, the combined overhead and profit shall be figured on the basis of the net increase, if any.

ADJUSTMENT OF UNIT PRICE:

- 11.8 Whenever the cost of any Work is to be determined pursuant to paragraphs 11.4 and 11.5, CONTRACTOR will submit in form acceptable to ENGINEER as itemized cost breakdown together with supporting data.
- 11.9 Where the quantity of Work with respect to any item that is covered by a unit price differs materially and significantly from the quantity of such Work indicated in the Contract Documents, an appropriate Change Order shall be issued on recommendations of ENGINEER to adjust the unit price.

CASH ALLOWANCES:

11:10 It is understand that CONTRACTOR has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be done by such Subcontractors, manufacturers, fabricators, suppliers or distributors and for such sums within the limit of the allowances as may be acceptable to ENGINEER. Upon final payment, the Contract Price shall be adjusted as required and an appropriate Change Order issued. CONTRACTOR agrees that the original Contract Price includes such sums as CONTRACTOR deems proper for costs and profit on account of cash allowances. No demand for additional cost or profit in connection therewith will be valid.

ARTICLE — 12 CHANGE OF THE CONTRACT TIME

- 12.1 The Contract Time may only be changed by a Change Order. Any claim for an extension in the Contract Time shall be based on written notice delivered to OWNER and ENGINEER within fifteen days of the occurrence of the event giving rise to the claim. Notice of the extent of the claim with supporting data shall be delivered within forty-five (45) days of such occurrence unless ENGINEER allows an additional period of time to ascertain more accurate data. All claims for adjustment in the Contract Time shall be determined by ENGINEER if OWNER and CONTRACTOR cannot otherwise agree. Any change resulting from any such claim shall be incorporated in a Change Order.
- 12.2 The Contract Time will be extended in an amount equal to time lost due to delays beyond the control of CONTRACTOR if a claim is made therefore as provided in paragraph in 12.1. Such delays shall include, but not be limited to, acts or neglect by OWNER or others performing additional Work as contemplated by Article 7, or to fires, floods, labor disputes, epidemics, abnormal weather conditions, or acts of God.
- 12.3 All the time limits stated in the Contract Documents are of the essence of the Agreement. The provisions of this Article 12 shall not exclude recovery for damages (including compensation for additional professional services) for delay by OWNER.

ARTICLE — 13 WARRANTY AND GUARANTEE

TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

13.1 CONTRACTOR warrants and guarantees to OWNER and ENGINEER that all Work will be in accordance with the Contract Documents and will not be defective. Prompt notice of all defects shall be given to CONTRACTOR. All defective Work, whether or not in place, may be rejected, corrected or accepted as provided in this Article 13.

ACCESS TO WORK:

13.2 ENGINEER and ENGINEER'S representatives, other representatives of OWNER, testing agencies and governmental agencies with jurisdictional interests will have access to the Work at reasonable times for their observation, inspection and testing, CONTRACTOR shall provide proper and safe conditions for such access.

TESTS AND INSPECTIONS:

- 13.3 CONTRACTOR shall give ENGINEER timely notice of readiness of the Work for all required inspections, tests or approvals.
- 13.4 If any law, ordinance, rule, regulation, code, or order of any public body having jurisdiction requires any Work (or part thereof) to specifically be inspected, tested or approved, CON-TRACTOR shall assume full responsibility thereof, pay all costs in connection herewith and furnish ENGINEER the required certificates of inspection, testing or approval. CON-TRACTOR shall also be responsible for and shall pay all costs in connection with any inspection or testing required in connection with OWNER'S or ENGINEER'S acceptance of a manufacturer, fabricator, supplier or distributor of materials or equipment proposed to be incorporated in the Work, or of materials or equipment submitted for approval prior to CON-TRACTOR'S purchase thereof for incorporation in the Work The cost of all other inspections, tests and approvals required by the Contract Documents shall be paid by CONTRACTOR (unless otherwise specified).
- 13.5 All inspections, tests or approvals other than those required by law, ordinance, rule, regulation, code or order of any public body having jurisdiction shall be performed by organizations acceptable to OWNER and CONTRACTOR (or by ENGINEER if so specified).
- 13.6 If any Work that is to be inspected, tested or approved is covered without written concurrence of ENGINEER, it must, if requested by ENGINEER, be uncovered for observation. Such uncovering shall be at CONTRACTOR'S expense unless CONTRACTOR has given ENGINEER timely notice of CONTRACTOR'S intention to cover such Work and ENGINEER has not acted with reasonable promptness in response to such notice.
- 13.7 Neither observations by ENGINEER nor inspections, tests or approvals by others shall relieve CONTRACTOR from his obligations to perform the Work in accordance with the Contract Documents.

UNCOVERING WORK

- 13.8 If any Work is covered contrary to the written request of ENGINEER, it must, if requested by ENGINEER, be uncovered for ENGINEER'S observation and replaced at CONTRACTOR'S expense.
- 13.9 If ENGINEER considers it necessary or advisable that covered Work be observed 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. If it is found that such Work is defective, CONTRACTOR shall bear all the expenses of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction, including compensation for additional professional services, and an appropriate deductive Change Order shall be issued. 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 if he makes a claim therefore as provided in Articles 11 and 12.

OWNER MAY STOP THE WORK:

13.10 If the Work is defective, or CONTRACTOR fails to supply sufficient skilled workmen or suitable materials or equipment, OWNER may order CONTRACTOR to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of OWNER to stop the Work shall not give rise to any duty on the part of OWNER to exercise this right for the benefit of CONTRACTOR or any other party.

CORRECTION OR REMOVAL OF DEFECTIVE WORK:

13.11 If required by ENGINEER, CONTRACTOR shall promptly, without cost to OWNER and as specified by ENGINEER, either correct any 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 nondefective Work.

ONE YEAR CORRECTION PERIOD:

13.12 If within one (1) year after the date of Substantial Completion or such longer period of time as may be prescribed by law or by the terms of any applicable special guarantee required by the Contract Documents or by an specific provision of the Contract Documents, any Work is found to be defective, CONTRACTOR shall promptly, without cost to Owner and in accordance with OWNER'S written instructions, either correct such defective Work, or, if it has been rejected by OWNER, remove it from the site and replace it with nondefective Work If CONTRACTOR does not promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, OWNER may have the defective Work corrected or the rejected Work removed and replaced, and all direct and indirect costs of such removal and replacement, including compensation for additional professional services, shall be paid by CONTRACTOR.

General Conditions

ACCEPTANCE OF DEFECTIVE WORK:

13.13 If, instead of requiring correction or removal and replacement of defective Work, OWNER (and, prior to ENGINEER'S recommendation of final payment, also ENGINEER) prefers to accept it, OWNER may do so. In such case, if acceptance occurs prior to ENGINEER'S recommendation of final payment, a Change Order shall be issued incorporating the necessary revisions in the Contract Documents, including appropriate reduction in the Contract Price; or, if the acceptance occurs after such recommendation, an appropriate amount shall be paid by CONTRACTOR to OWNER.

OWNER MAY CORRECT DEFECTIVE WORK:

13.14 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 in accordance with paragraph 13.11 or if CONTRACTOR fails to perform the Work in accordance with the Contract Documents (including any requirements of the progress schedule), OWNER may, after seven (7) days written notice to CONTRACTOR, correct and remedy any such deficiency. In exercising his rights under this paragraph OWNER shall proceed expeditiously. To the extent necessary to complete corrective and remedial action, OWNER may exclude CONTRACTOR from all or part of the site, take possession of all or part of the Work, and suspend CONTRAC-TOR'S services related thereto, take possession of CONTRAC-TOR'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 OWNER has paid CONTRACTOR shall allow OWNER, OWNER'S representatives, agents and employees such access to the site as may be necessary to enable OWNER to exercise his rights under this paragraph. All direct and indirect costs of OWNER in exercising such rights shall be charged against CONTRACTOR in an amount verified by ENGINEER, and a Change Order shall be issued incorporating the necessary revisions in the Contract Documents and a reduction in the Contract Price. Such direct and indirect costs of repair and replacement of CONTRAC-TOR'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 OWNER or OWNER'S rights hereunder.

ARTICLE — 14 PAYMENTS TO CONTRACTOR AND COMPLETION

SCHEDULES:

14.1 At least ten (10) days prior to submitting the first Application for a progress payment, CONTRACTOR shall (except as otherwise specified in the General Requirements) submit to ENGINEER a progress schedule, a final schedule of Shop Drawing submission and where applicable a schedule of values of the Work. These schedules shall be satisfactory in form and substance to ENGINEER. The schedule of values shall include quantities and unit prices aggregating the Contract Price, and shall subdivide the Work into component parts in sufficient detail to serve as the basis for progress payments during construction. Upon acceptance of the schedule of values by ENGINEER, it shall be incorporated into a form of Application for Payment acceptable to ENGINEER.

APPLICATION FOR PROGRESS PAYMENT:

14.2 At least ten (10) days before each progress payment falls due (but not more often than once a month), CONTRACTOR shall submit to ENGINEER for review an Application for Payment 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 and also as ENGINEER may reasonably require. 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 such data, satisfactory to OWNER, as will establish OWNER'S title to the material and equipment and protect OWNER'S interest therein, including applicable insurance. Each subsequent Application for Payment shall include an affidavit of CON-TRACTOR stating that all previous progress payments received on account of the Work have been applied to discharge in full all of CONTRACTOR'S obligations reflected in prior applications for Payment. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

CONTRACTOR'S WARRANTY OF TITLE:

14.3 CONTRACTOR warrants and guarantees that title to all Work, materials and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to OWNER at the time of payment free and clear of all liens, claims, security interests and encumbrances (hereinafter in these General Conditions referred to as "Liens").

REVIEW OF APPLICATIONS FOR PROGRESS PAYMENT:

- 14.4 ENGINEER'S will, within ten (10) days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to OWNER, or return the Application to CONTRACTOR indicating in writing ENGINEER'S reasons for refusing to recommend payment. In the later case, CONTRACTOR may make the necessary corrections and resubmit the Application. OWNER shall, within ten (10)days of presentation to him of the Application for Payment with ENGINEER'S recommendation pay CONTRACTOR the amount recommended.
- 14.5 ENGINEER'S recommendation of any payment requested in an Application for Payment will constitute a representation by ENGINEER to OWNER, based on ENGINEER'S on-site observations of the Work in progress as an experienced and qualified design professional and on ENGINEER'S review of the Application for Payment and the accompanying data and schedules that the Work has progressed to the point indicated: that, to the best of ENGINEER'S knowledge, information and belief, the quality of the Work is in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning Project upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents and any qualifications stated in the recommendation; and that CONTRACTOR is entitled to payment of the amount recommended. However, by recommending any such payment ENGINEER will not thereby be deemed to have represented that exhaustive or continuous on-site inspections have been made to check the quality or the quantity of the Work, or that the means, methods, techniques, sequences, and procedures of construction have been reviewed or that any examination has been made to ascertain how or for what purpose CONTRAC-TOR has used the moneys paid or to be paid to CONTRAC-TOR on account of the Contract Price, or that title to any Work, materials or equipment has passed to OWNER free and clear of any Liens.
- 14.6 ENGINEER'S recommendation of final payment will constitute an additional representation by ENGINEER to OWNER that the conditions precedent to CONTRACTOR'S being entitled to final payment as set forth in paragraph 14.13 have been fulfilled.
- 14.7 ENGINEER may refuse to recommend the whole or any part of any payment if, in his opinion, it would be incorrect to make such representations to OWNER. He may also refuse to recommend any such payment, or, because of subsequently discovered evidence or the results of subsequent inspections or tests, nullify such payment previously recommended to such extent as may be necessary in ENGINEER'S opinion to protect OWNER from loss because:
- 14.7.1 The Work is defective, or completed Work has been damaged requiring correction or replacement.
- 14.7.2 Written claims have been made against OWNER or Liens have been filed in connection with the Work.
- 14.7.3 The Contract Price has been reduced because of Modifications.
- 14.7.4 OWNER has been required to correct defective Work or complete the Work in accordance with paragraph 13.14.
- 14.7.5 Of CONTRACTOR's unsatisfactory prosecution of the Work in accordance with the Contract Documents, or
 - 14.7.6 CONTRACTOR'S failure to make payment to Subcontractors, or for labor, materials or equipment.

SUBSTANTIAL COMPLETION:

- 14.8 When CONTRACTOR considers the entire Work ready for its intended use CONTRACTOR shall, in writing to OWNER and ENGINEER, certify that the entire Work is substantially complete and request that ENGINEER issue a certificate of Substantial Completion. Within a reasonable time thereafter. OWNER, CONTRACTOR and ENGINEER shall make an inspection of the Work to determine the status of completion. If ENGINEER does not consider the Work substantially complete, ENGINEER will notify CONTRACTOR in writing giving his reasons therefore. If ENGINEER considers the Work substantially complete, ENGINEER will prepare and deliver to OWNER a tentative certificate of Substantial Completion 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. OWNER shall have seven (7) days after receipt of the tentative certificate during which he may make written objection to ENGINEER as to any provisions of the certificate or attached list. If, after considering such objections, ENGINEER concludes that the Work is not substantially complete, ENGINEER will within fourteen (14) days after submission of the tentative certificate to OWNER notify CONTRACTOR in writing, stating his reasons therefore. If, after consideration of OWNER'S objections, ENGI-NEER considers the Work substantially complete, ENGINEER will within said fourteen (14) days execute and deliver to the OWNER and CONTRACTOR a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as he believes justified after consideration of any objections from OWNER. At the time of delivery of the tentative certificate of Substantial Completion ENGINEER will deliver to OWNER and CONTRACTOR a written recommendation as to division of responsibilities pending for final payment between OWNER and CONTRACTOR with respect to security, operation, safety, maintenance, heat, utilities and insurance. Unless OWNER and CONTRACTOR agree otherwise in writing and so inform ENGINEER prior to his issuing the definitive certificate of Substantial Completion ENGI-NEER'S aforesaid recommendation will be binding on OWNER and CONTRACTOR until final payment
- 14.9 OWNER shall have the right to exclude CONTRACTOR from the Work after the date of Substantial Completion, but OWNER shall allow CONTRACTOR reasonable access to complete or correct items on the tentative list.

PARTIAL UTILIZATION:

- 14.10 Use by OWNER of completed portions of the Work may be accomplished prior to Substantial Completion of all Work subject to the following:
- 14.10.1 OWNER at any time may request CONTRACTOR in writing to permit OWNER to use any part of the Work which OWNER believes to be substantially complete and which may be so used without significant interference with construction of the other parts of the Work. If CONTRACTOR agrees, CONTRACTOR will certify to OWNER and ENGINEER that said part of the Work is substantially complete and request ENGINEER to issue a certificate of Substantial Completion for that part of the Work. Within a reasonable time thereafter OWNER, CONTRACTOR and ENGINEER shall make an inspection of that part of the Work to determine its status of completion. If ENGINEER does not consider that part of the Work to be substantially complete, ENGINEER will notify OWNER and CONTRACTOR in writing giving

his reasons therefore. If ENGINEER considers that part of the Work to be substantially complete, ENGINEER will execute and deliver to OWNER and CONTRACTOR a certificate to that effect, fixing the date of Substantial Completion as to that part of the Work, attaching thereto a tentative list of items to be completed or corrected before final payment. Prior to issuing a certificate of Substantial Completion as to part of the Work ENGINEER will deliver to OWNER and CONTRACTOR a written recommendation as to the division of responsibilities pending final payment between OWNER and CONTRACTOR with respect to security, operation, safety, maintenance, utilities and insurance for that part of the Work which shall become binding upon OWNER and CON-TRACTOR at the time of issuing the definitive certificate of Substantial Completion as to that part of the work unless OWNER and CONTRACTOR shall have otherwise agreed in writing and so informed ENGINEER. OWNER shall have the right to exclude CONTRACTOR from any part of the Work which ENGINEER has to certified to be substantially complete, but OWNER shall allow CONTRACTOR reasonable access to complete or correct items on the tentative list.

14.10.2 In lieu of the issuance of a certificate of Substantial Completion as to part of the Work, OWNER may take over operation of a facility constituting part of the Work whether or not it is substantially complete if such facility is functionally and separately usable; provided that prior to any such takeover, OWNER and CONTRACTOR have agreed as to the division of responsibilities between OWNER and CONTRACTOR for security, operation, safety, maintenance, correction period, heat, utilities and insurance with respect to such facility.

14.10.3 No occupancy of part of the Work or taking over of operation of a facility will be accomplished prior to compliance with the requirements of paragraph 5.10 in respect of property insurance.

FINAL INSPECTION:

14.11 Upon written notice from CONTRACTOR that the Work is complete, ENGINEER will make a final inspection with OWNER 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:

14.12 After CONTRACTOR has completed all such corrections to the satisfaction of ENGINEER and delivered all maintenance and operating instructions, schedules, guarantees, Bonds, certificates of inspection, marked-up record documents and other documents 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 14.16), CONTRACTOR may make application for final payment following the procedure for progress payments. The final Application for Payment shall be accompanied by all documentation called for in the Contract Documents and such other data and schedules as ENGINEER may reasonably require, together with complete and legally effective releases or waivers (satisfactory to OWNER) of all Liens arising out of or filed in connection with the Work. In lieu thereof and as approved by OWNER CONTRACTOR may furnish receipts or releases in full; an affidavit of CONTRACTOR that the releases and receipts 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 OWNER or his 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, manufacturer, fabricator, supplier or distributor fails to furnish a release or receipt in full, CONTRACTOR may furnish a Bond or other collateral satisfactory to OWNER to indemnify OWNER against any Lien.

FINAL PAYMENT AND ACCEPTANCE

14.13 If, on the basis of ENGINEER'S observation of the Work during construction and final inspection, and ENGINEER'S review of the final Application for Payment and accompanying documentation - all as required by the Contract Documents, ENGI-NEER is satisfied that the Work has been completed and CON-TRACTOR has fulfilled all of his obligations under the Contract Documents, ENGINEER will, within ten (10) days after receipt of the final Application for Payment, indicate in writing his recommendation of payment and present the application to OWNER for payment. Thereupon ENGINEER will give written notice to OWNER and CONTRACTOR that the Work is acceptable subject to the provisions of paragraph 14.16. 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. If the Application and accompanying documentation are appropriate as to form and substance, OWNER shall, within thirty (30) days after receipt thereof pay CONTRAC-TOR the amount recommended by ENGINEER.

14.14 If, through no fault of CONTRACTOR, final completion of the Work is significantly delayed thereof and if ENGINEER so confirms, OWNER shall, upon receipt of CONTRAC-TOR'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. If the remaining balance to be held by OWNER for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if Bonds have been furnished as required in paragraph 5.1, the written consent of the Surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by CONTRACTOR to ENGINEER with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

CONTRACTOR'S CONTINUING OBLIGATION:

14.15 CONTRACTOR'S obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. Neither recommendation of any progress of final payment by ENGINEER, nor the issuance of a certificate of Substantial Completion, nor any payment by OWNER to CONTRACTOR under the Contract Documents, nor any use or occupancy of the Work or any part thereof by OWNER, nor any act of acceptance by OWNER nor any failure to do so, nor the issuance of a notice of acceptability by ENGINEER pursuant to paragraph 14.13, nor any correction of defective Work by OWNER shall constitute an acceptance of Work not in accordance with the Contract Documents or a release of CONTRACTOR's obligation to perform the Work in accordance with the Contract Documents.

General Conditions

WAIVER OF CLAIMS:

- 14.16 The making and acceptance of final payment shall constitute:
- 14.16.1 A waiver of all claims by OWNER against CONTRACTOR, except claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to paragraph 14.11 or from failure to comply with the Contract Documents or the terms of any special guarantees specified therein; however, it shall not constitute a waiver by OWNER of any rights in respect of CONTRACTOR'S continuing obligations under the Contract Documents; and
- 14.16.2 A waiver of all claims by CONTRACTOR against OWNER other than those previously made in writing and still unsettled

ARTICLE — 15 SUSPENSION OF WORK AND TERMINATION

OWNER MAY SUSPEND WORK:

15.1 OWNER may, at any time and without cause, suspend the Work or any portion thereof for a period of not more than ninety (90) days by notice in writing to CONTRACTOR and ENGINEER which shall fix the date on which Work shall be resumed. CONTRACTOR shall resume the Work on the date so fixed. CONTRACTOR will be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to any suspension if he makes a claim therefore as provided in Articles 11 and 12.

OWNER MAY TERMINATE:

- 15.2 Upon the occurrence of any one or more of the following events:
- 15.2.1 If CONTRACTOR is adjudged bankrupt or insolvent
- 15.2.2 If CONTRACTOR makes a general assignment for the benefit of creditors.
- 15.2.3 If a trustee or receiver is appointed for CONTRACTOR or for any of CONTRACTOR'S property.
- 15.2.4 If CONTRACTOR files a petition to take advantage of any debtor's act, or to reorganize under the bankruptcy or similar laws.
- 15.2.5 If CONTRACTOR repeatedly fails to supply sufficient skilled workmen or suitable materials or equipment.
- 15.2.6 If CONTRACTOR repeatedly fails to supply sufficient skilled workmen or suitable materials or equipment.
- 15.2.7 If CONTRACTOR disregards laws, ordinances, rules, regulations or orders of any public body having jurisdiction,
- 15.2.8 If CONTRACTOR disregards the authority of ENGINEER, or
- 15.2.9 If CONTRACTOR otherwise violates in any substantial way any provisions of the Contract Documents, OWNER may after giving CONTRACTOR and his Surety seven (7) days written notice, terminate the services of CONTRACTOR, 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 OWNER has paid CONTRAC-TOR but which are stored elsewhere, and finish the Work as OWNER 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 and indirect costs of completing the Work including compensation for additional professional services,

- such excess shall be paid to CONTRACTOR. If such costs exceed such unpaid balance, CONTRACTOR shall pay the difference to OWNER. Such costs incurred by OWNER shall be verified by ENGINEER and incorporated in a Change Order, but in finishing the Work OWNER shall not be required to obtain the lowest figure for the Work performed.
- 15.3 Where CONTRACTOR'S services have been so terminated by OWNER, the termination shall not affect any rights of OWNER against CONTRACTOR then existing or which may thereafter accrue. Any retention or payment of moneys due CONTRACTOR by OWNER will not release CONTRACTOR from liability.
- 15.4 Upon seven (7) days written notice to CONTRACTOR and ENGINEER, OWNER may without cause and without prejudice to any other right or remedy, elect to abandon the Work and terminate the Agreement. In such case, CONTRACTOR shall be paid for all Work executed and any expense sustained plus reasonable termination expenses.

CONTRACTOR MAY STOP WORK OR TERMINATE:

15.5 If, through no act or fault of CONTRACTOR, the Work is suspended for a period of more than ninety (90) days by OWNER or under an order of court or other public authority, then CONTRACTOR may, upon seven (7) days written notice to OWNER and ENGINEER, terminate the Agreement and recover from OWNER payment for all Work executed in and any expense sustained. The provisions of this paragraph shall not relieve CONTRACTOR of his obligations under paragraph 6.29 to carry on the Work in accordance with the progress schedule and without delay during disputes and disagreements with OWNER

ARTICLE — 16 MISCELLANEOUS

GIVING NOTICE:

16.1 Whenever any provision of the Contract Documents requires the giving of written notice it shall be needed to have been validly given delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

COMPUTATION OF TIME:

16.2 When any period of time is referred to in the Contract Documents by days, it shall be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday on a day made a legal holiday by the law of the applicable jurisdiction, such day shall be omitted from the computation.

GENERAL:

- 16.3 Should OWNER or CONTRACTOR suffer injury or damage to his person or property because of any error, omission or act of the other party or of any of the other party's employees or agents or others for whose acts the other party is legally liable, claim shall be made in writing to the other party within a reasonable time of the first observance of such injury or damage.
- 16.4 The duties and obligation imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto, and, in particular but without limitation, the warranties, guarantees and obligations imposed upon CON-

General Conditions

TRACTOR by paragraphs 6.30, 13.1 13.11, 13.14, 14.3 and 15.2 and all of the rights and remedies available to OWNER and ENGINEER thereunder, shall be in addition to, and shall not 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 law or contract, by special warranty or guarantee or by other provisions of the Contract Documents, and 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 to which they apply. All representations, warranties and guarantees made in the Contract Documents shall survive final payment and termination or completion of this Agreement.

END OF GENERAL CONDITIONS

RIVERSIDE LOT 6 BROWNFIELDS REMEDIATION SUPPLEMENTARY CONDITIONS

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract and other provisions of the Contract Documents as indicted below. All provisions which are not so amended or supplemented remain in full force and effect.

ARTICLE 1 - DEFINITIONS

SC-1

The term used in these Supplementary Conditions which are defined in the Standard General Conditions of the Construction Contract have the meanings assigned to them in the General Conditions.

SC-1.2.1

Add an additional paragraph after paragraph 1.2 of the General Conditions as follows:

Although this Project is funded in part by the State of New York, the State of New York is not a party to the Contract.

ARTICLE 2 - PRELIMINARY MATTERS

SC-2.8.1

Add an additional paragraph after paragraph 2.8. of the General Conditions as follows:

A Pre-Construction meeting at the Project site, and job-coordination meetings as required, must be attended by the Contractor's field superintendent, and subcontractors if requested by ENGINEER. Up-dated project work progress schedules and work time schedules shall be presented at each meeting or as otherwise requested by ENGINEER.

SC-2.9

Add an additional paragraph after paragraph 2.8.1 of the General Conditions as follows:

2.9 CONTRACTOR realizes that the OWNER will suffer financial loss and penalties if the work is not completed within the times specified in Article 3 of the Agreement or as amended in accordance with Article 12 of the General Conditions. Any penalties due will be borne by the CONTRACTOR in addition to the liquidated damages specified in this Agreement. Any penalties so imposed will be deducted from Payment Applications in accordance with the provisions of Supplementary Condition SC-14.17.

SC-2.10

Add a new paragraph after paragraph 2.9 of the General Conditions to read as follows:

2.10 CONTRACTOR shall provide State representatives with access wherever there is work in preparation or progress, and shall provide proper facilities and records for access, inspection, and review.

ARTICLE 3 – CONTRACT DOCUMENTS

SC-3.6

Add a new paragraph 3.6 immediately after paragraph 3.5 of the General Conditions which is to read as follows:

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:

- a. a formal Written Agreement
- b. a Change Order (persuant to paragraph 10.1)
- c. a Work Change Directive (pursuant to paragraph 10.1)

SC-3.7

Add a new paragraph 3.7 immediately after new paragraph 3.6 of the General Conditions which is to read as follows:

Issue: 3/1/04 SC - 1 of 22

The requirements of the Contract Documents may be supplemented, and minor variations and deviations from the Work may be authorized, in one or more of the following ways:

- a. Field Order
- Engineer's approval of a Shop Drawing or Sample (pursuant to paragraphs 6.26 and 6.27)
- c. Engineer's written interpretation or clarification (pursuant to paragraph 9.3)

ARTICLE 4 – AVAILABILITY OF LANDS; PHSYICAL CONDITIONS; REFERENCE POINTS

SC-4.2.1

Add a new subparagraphs to paragraph 4.2 of the General Conditions to read as follows:

CONTRACTOR may rely upon the general accuracy of the "techinical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Except for reliance on such "technical data," CONTRACTOR may not rely upon or make any claim against OWNER, ENGINEER, or any of ENGINEER's Consultants with respect to:

- a. the completeness of such reports and drawings for CONTRACTOR's purposes, including but not limited to any aspects, means, methods, techniques, sequences, and procedures of construction to be employed by CONTRACTOR and safety precautions and programs incident thereto, or
- other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings, or
- any CONTRACTOR interpretation of or conclusion drawn from any "technical data" or any such data, interpretations, opinions, or information.

ARTICLE 5 - BONDS AND INSURANCE

SC-5.1

Amend the first sentence of the first paragraph of 5.1 of the General Conditions to include a bid bond, so that each bid bond, performance bond, and payment bond are required in the amounts specified or as required by municipal law. The bid bond shall be a minimum 5% of the total Contract Price. The performance bond and payment bond shall remain in force one year beyond final project acceptance.

SC-5.3

Amend the table of insurance coverage of 5.3 of the General Conditions to include:

- Workers Compensation, as required by General Municipal Law (Article 5-A, Section 108),
- · Comprehensive General Liability,
- Owners Protective Liability,
- Contractual Liability,
- Comprehensive Automobile Liability,
- Fire/Vandalism Extended Coverage,
- Pollution Liability

With the minimum liability insurance required at \$1,000,000 each occurance and \$2,000,000 aggregate.

SC-5.3

Amend the first sentence of the second paragraph of 5.3 of the General Conditions to read:

On all policies, each of the OWNER, the ENGINEER, and the NYSDEC shall be named as Additional Insureds. An Umbrella Policy in the amount of \$5,000,000 may be used to meet the above limits.

SC-5.3.1

Add a new subparagraph 5.3.1 immediately after paragraph 5.3 of the General Conditions which is to read as follows:

Issue: 3/1/04 SC - 2 of 22

The CONTRACTOR shall review the insurance policies of all subcontractors for compliance with these Contract Documents. All subcontracts must obtain insurance in the same amounts as required by the CONTRACTOR or be named on the CONTRACTOR's policy. All insurance policies shall be submitted to the OWNER for his review.

ARTICLE 6 - CONTRACTOR'S RESPONSIBILITY

SC-6.8.1

Add a new subparagraph 6.8.1 immediately after paragraph 6.8 of the General Conditions which is to read as follows:

The CONTRACTOR shall submit a list of SUBCONTRACTORs and major Material Suppliers for the OWNER's and NYSDEC's approval prior to the Notice of Award. Such list shall be accompanied by an experience statement with pertinent information as to similar projects and other evidence of qualifications from each such SUBCONTRACTOR, person and organization requested by OWNER, and shall include:

- a. Evidence that by reference or attachment and incorporation, all applicable requirements of the prime contract are a part of the subcontract, and that all applicable state and federal laws and requirements apply,
- If the subcontract is for unit price work, a unit price schedule should be included as an attachment to the subcontract,
- Signatories to the agreement,
- d. A specified dollar amount,
- e. A detailed scope of work with the property and project identified,
- f. A time frame for performance,
- g. Conflict of interest clauses.

If OWNER or NYSDEC, after due investigation has reasonable objections to any proposed SUBCONTRACTOR, other person or organization, the OWNER or NYSDEC may before giving the Notice of Award request the apparent successful BIDDER to submit an acceptable SUBCONTRACTOR without an increase in Bid Price. If the apparent successful BIDDER declines

to make any such substitution, the Contract shall not be awarded to such BIDDER, but his declining to make any such substitution will not constitute grounds for sacrificing his Bid Security. Any SUBCONTRACTOR, other person or organization so listed and to whom OWNER or NYSDEC does not make written objection prior to the giving of the Notice of Award will be deemed acceptable to OWNER.

SC-6.8.2

Add a new subparagraph 6.8.2 immediately after paragraph 6.8.1 of the General Conditions which is to read as follows:

Subcontracts cannot be a cost-plus-percentageof-cost or a percentage-of-construction-cost type of agreement.

- a. All subcontracts valued over \$5,000 must be submitted to the OWNER, ENGINEER, and NYSDEC when they are executed.
- b. Unit price subcontracts over \$10,000 require five responsive bids/quotes for justification with at least three in writing, for each subcontract
- Subcontracts estimated to be between \$5,000 and \$10,000 require three written responsive quotes, for each subcontract
- d. For subcontracts under \$5,000, written quotes are not required but costs will be evaluated by the NYSDEC for reasonableness, i.e. comparison to a previous engineering estimate, lowest of three verbal quotes, or comparison with recent comparable work
- e. For subcontracts under \$25,000 may be unit price or fixed price provided the scope of work can be well defined and three written, responsive quotes are obtained. Subconsultant contracts which are over \$25,000 must, or under \$25,000 may, be cost plus fixed fee type contracts.

Issue: 3/1/04 SC - 3 of 22

SC-6.15

Delete paragraph 6.15 in its entirety and substitute the following :

"The OWNER is exempt from payment of Sales and Compensating Use Taxes of the State of New York and of its cities and counties on all materials and supplies sold to the OWNER pursuant to the provisions of this Contract. Those tools, machinery, and equipment or other property leased by or to the CONTRACTOR or a SUBCONTRACTOR, or supplies and materials which even though they are consumed, are not incorporated into the completed project are not tax exempt. The CONTRACTOR and his SUBCONTRACTORS shall be responsible to pay all applicable taxes, including Sales and Compensating Use Taxes, on such leased tools, machinery, and equipment, or other property and upon all such unincorporated supplies and materials.

ARTICLE 9 – ENGINEER'S STATUS DURING CONSTRUCTION

SC-9.2 Add a new subparagraph 9.2.1 to read as follows:

SC-9.2.1 ENGINEER, Resident Project Representative, OWNER, NYSDEC and all such other persons referred to shall have unrestricted access to all parts of the Work. CONTRACTOR shall cooperate by supplying necessary facilities and assistance required by above persons to carry out their work of observation and inspection.

SC-9.8 Add a new subparagraph 9.8.1 to read as follows:

SC-9.8.1 OWNER may also designate one of its employees to represent OWNER for these purposes.

ARTICLE 11 – CHANGE OF CONTRACT PRICE

SC-11.9.1

Add a new paragraph 11.9.1 immediately after paragraph 11.9 of the General Conditions to read as follows:

For unit quantity overrun and underrun from Bid and Contract estimated quantities in excess of 15% and \$30,000 or greater, the Owner shall review and renegotiate the affected Contract Unit Prices

SC-11.10.1

Add a new paragraph 11.10.1 immediately after paragraph 11.9 of the General Conditions to read as follows:

ENGINEER will determine the actual quantities and classifications of Unit Price Work performed by CONTRACTOR. ENGINEER will review with CONTRACTOR the ENGINEER's preliminary determinations on such matters before rendering a written decision thereon. ENGINEER's written decision thereon will be final and binding upon OWNER and CONTRACTOR unless within ten days after the date of any such decision, either CONTRACTOR or OWNER delivers to the other and to ENGINEER written notice on intention to appeal from ENGINEER's decision.

SC-11.11

Add a new paragraph 11.11 immediately after new paragraph 11.10 of the General Conditions to read as follows:

Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the established unit price for each separately identified item of the Unit Price Work times the estimated quantity of each item as indicated in the Agreement. Each unit price will be deemed to include an amount considered by CONTRACTOR to be adequate to cover CONTRACTOR's overhead and profit for each separeately identified item. The estimated quantities of items of Unit Price Work are not guaranteed and are soley for the purpose of comparison of Bids and determining an initial Contract Price. Determination of the actual quantities and classifications of Unit Price Work performed by CONTRACTOR will be made by ENGINEER in accordance with paragraph SC-11.10 of these Supplementary Conditions.

Issue: 3/1/04 SC - 4 of 22

ARTICLE 14 - PAYMENT TO CONTRACTOR AND COMPLETION

SC-14.4

Amend paragraph 14.4 of the General Conditions by charging the last sentence to read as follows:

"Forty-five (45) days after presentation of the Application for Payment to OWNER with ENGINEER's recommendation, the amount recommended will (subject to the provisions of the last sentence of paragraph 14.7) become due and when due will be paid by OWNER to CONTRACTOR."

and also add the following language at the end of paragraph 14.4 of the General Conditions:

"In no event will the amount recommended by the Engineer become due and entitled to be paid any earlier than as provided in General Municipal Law Section 106-B, as amended."

SC-14.17

Add three (3) new subparagraphs to Article 14 of the General Conditions which are to read as follows:

14.17.1 The OWNER may deduct liquidated damages from the CONTRACTOR's payment requests which have been submitted in accordance with the provisions of Article 14 of the General Conditions at the rate as outlined in the Standard Form of Agreement, Article 3.2 if the CONTRACTOR does not meet the contract time as noted in the Standard Form of Agreement, Article 3.1. The liquidated damages will be deducted from any money due to the CONTRACTOR, not as a penalty, but as liquidated damages, for each calendar day that any work shall remain uncompleted after the contract time specified for the completion of the work provided for in the Contract.

SC-14.17.2 The withholding of liquidated damages may be waived by the OWNER should the CONTRACTOR in good faith file for an extension of the contract time as provided for in the General Conditions, Article 12. The

CONTRACTOR waives all rights to the liquidated damaged deducted by the OWNER as defined in Paragraph 3.2 should the CONTRACTOR fail to file such a claim before the project dates have been reached, or the claim is denied as referenced in General conditions, Article 9 (Paragraph 9.11) and Article 12.

SC-14.17.3 Permitting the CONTRACTOR to continue and finish the work or any part of it after the time fixed for its completion or after the date to which the completion may have been extended, will in no way operate as a waiver on the part of the OWNER of any of its rights under Contract.

ARTICLE 17 - LABOR RECORDS AND SCHEDULES

Add Article 17 to the General Conditions as follows:

SC-17.1 LABOR RECORDS AND SCHEDULES

The Department of Jurisdiction on such public work shall require all CONTRACTORS and SUBCONTRACTORS to keep the following records on the site of the public work project on which such CONTRACTORS, and SUBCONTRACTORS are engaged:

- **17.1.1** Record of hours worked by each worker, laborer, and mechanic on each day.
- **17.1.2** Record of days worked each week by each worker, laborer, and mechanic.
- **17.1.3** Schedule of occupation or occupations at which each worker, laborer, and mechanic on the project is employed during each workday and week.
- **17.1.4** Schedule of hourly wage rates supplements paid to each worker, laborer, mechanic for each occupation.

Issue: 3/1/04 SC - 5 of 22

SC-17.2 WAGE SCHEDULES

Pursuant to Sections 220.3 and 220-d of the Labor Law, each laborer, worker, or mechanic employed by the CONTRACTOR, SUBCONTRACTOR, or other person shall be paid not less than the prevailing rate of wages for a legal day's work and shall be provided supplements not less than the prevailing supplements as determined by the Industrial Commissioner.

The CONTRACTOR and every SUBCONTRACTOR shall post in a prominent and accessible place on the site of the work a legible statement of all wage rates and supplements as specified in the CONTRACT to be paid or provided, as the case may be, for the various classes of mechanics, workers, and laborers employed on the work.

The OWNER does not represent or warrant that the accompanying schedule of wage rates and supplements with the classification of workers, mechanics, and laborers, as required by Section 220 of the Labor Law, is complete, and it reserves the right to revise such schedule when required. If any occupation is not mentioned in the schedule of wage rates and supplements it shall be requested from the Industrial Commissioner, by the CONTRACTOR through the ENGINEER and such schedules, shall, upon notice to the CONTRACTOR, become and be a part of the wage and supplement schedules embodied in the CONTRACT.

ARTICLE 18 - NON-DISCRIMINATION IN EMPLOYMENT

Add Article 18 to the General Conditions as follows:

SC-18 - NON-DISCRIMINATION IN EMPLOYMENT

During the performance of the Contract, the CONTRACTOR shall comply with the following: Section 220-e of the State Labor Law -

(a) That in the hiring of employees for the performance of work under this Contract or any

subcontract hereunder, no CONTRACTOR, SUBCONTRACTOR, nor any person acting on behalf of such CONTRACTOR or SUBCONTRACTOR, shall be reason of race, creed, color, 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;

- (b) That no CONTRACTOR, SUBCONTRACTOR, nor any person acting on behalf shall, in any manner discriminate against or intimidate any employee hired for the performance of work under this Contract on account of race, creed, color, sex or national origin;
- (c) That there may be deducted from the amount payable to the CONTRACTOR by the municipality under this Contract a penalty of five dollars for each person for each calendar day during which such person was discriminated against or intimidated in violation of the provisions of the Contract;
- (d) That this Contract may be canceled or terminated by the municipality and all monies due or to become due hereunder may be forfeited, for a second or any subsequent violation of the terms or conditions of the provisions of the Contract;
- (e) The aforesaid provisions of this Section covering every Contact for or on behalf of the municipality for the manufacture, sale or distribution of materials, equipment, or supplies shall be limited to operations performed within the territorial limits of the State of New York.

Non-discrimination Clauses of the Executive Law and Civil Rights Law:

(a) The CONTRACTOR will not discriminate against any employee or applicant for employment because of race,

creed, color, sex, or national origin, and will take affirmative action to insure that they are afforded equal employment opportunities without discrimination because of race, color, sex, or national origin. Such action shall be taken with reference, but not be limited to: recruitment, employment, job assignment, promotion, upgrading, demotion, transfer, layoff, or termination, rates of pay or other forms of

Issue: 3/1/04 SC - 6 of 22

compensation, and selection for training or retraining, including apprenticeship and on-thejob training.

- (b) The Contractor will send to each labor union or representative or workers with which he has or is bound by a collective bargaining or other agreement or understanding, a notice, to be provided by the State Commission for Human Rights, advising such labor union or representative of the Contractor's agreement under clauses (a) through (g) (hereinafter called "non-discrimination clauses"). If the Contractor was directed to do so by the contracting agency as part of the bid or negotiation of this Contract, the Contractor shall request such labor union or representative to furnish him with a written statement that such labor union or representative will not discriminate because of race, creed, color, sex or national origin and that such labor union or representative either will affirmatively cooperate, within the limits of its legal and contractual authority, in the implementation of the policy and provisions of the nondiscrimination clauses or that it consents and agrees that recruitment, employment and the terms and conditions of employment under this Contract shall be in accordance with purposes and provisions of these non-discrimination clauses. If such labor union or representative fails or refuses to comply with such a request that it furnish such a statement, the Contractor shall promptly notify the State Commission for Human Rights of such failure or refusal.
- (c) The Contractor will post and keep posted in conspicuous places, available to employees and applicants for employment, notices to be provided by the State Commission for Human Rights setting forth the substance of the provisions of clauses (a) and (b) and such provisions of the State's laws against discrimination as the State Commission for Human Rights shall determine.
- (d) The Contractor will state, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, that all qualified applicants will be afforded equal employment opportunities without discrimination because of race, creed, color, sex, or national origin.
- (e) The Contractor will comply with the provisions of Section 293-299 of the Executive

- Law and the Civil Rights Law, will furnish all information and reports deemed necessary by the State Commission for Human Rights for Human Rights under these rion-discrimination clauses and such sections of the Executive Law, and will permit access to his books, records and accounts by the State Commission for Human Rights, the Attorney General and the Industrial Commissioner for purposes of investigation to ascertain compliance with these non-discrimination clauses and such sections of the Executive law and the Civil Rights Law.
- (f) This Contract may be forthwith cancelled, terminated or suspended in whole or in part, upon the basis of finding made by the State Commission for Human Rights that the contractor may be declared ineligible for further contracts made by or on behalf of the State or a public authority or agency of the State, until he has satisfied the State Commission for Human Rights that he has established and is carrying out a program in conformity with the provisions of these non-discrimination clauses. Such findings shall be made by the State Commission of Human Rights after conciliation efforts by the Commission have failed to achieve compliance with these nondiscrimination clauses and after a verified complaint has been filed with the Commission, notice thereof has been given to the Contractor and an opportunity has been afforded him to be heard publicly before three members of the Commission. Such sanctions may be imposed and remedies invoked independently of or in addition to sanctions and remedies otherwise provided by law.
- (g) The Contractor will include the provisions of clauses (a) through (f) in every sub-contract or purchase order in such a manner that such provisions will be binding upon each Sub-contractor or vendor as to operations to be performed within the State of New York. The Contractor will take such action in enforcing such provisions of such Subcontract or purchase order as the contracting agency may direct, including sanctions or remedies for non-compliance.

Issue: 3/1/04 SC - 7 of 22

ARTICLE 19 - PROVISIONS FOR PUBLIC WORKS UNDER NEW YORK STATE LAW

Add Article 19 to the General Conditions as follows:

SC-19 PROVISIONS FOR PUBLIC WORKS UNDER NEW YORK STATE LAW

During the performance of the Contract, the Contractor agrees as follows:

- 1. That in the hiring of employees for the performance of work under this Contract or any subcontract hereunder, no CONTRACTOR, Subcontractor, nor any person acting on behalf of such CONTRACTOR or subcontractor, shall by reason of age, race, creed, color, disability, sex, national origin, or marital status discriminate against any citizen of the State of New York who is qualified and available to perform the work to which the employment relates;
- 2. That no CONTRACTOR, subcontractor, nor any person on his behalf, shall, in any manner, discriminate against or intimidate any employee hired for the performance of work under this Contract on account of age, race, creed, color, disability, sex, national origin, or marital status; 3. That there may be deducted from the amount payable to the CONTRACTOR by the state or municipality under this Contract, a penalty of \$50.00 for each person for each calendar day during which such person was discriminated against or intimidated in violation of the provisions of the Contract;
- 4. That this Contract may be cancelled or terminated by the state or municipality, and all moneys due or to become due hereunder may be forfeited for a second or any subsequent violation of the terms or conditions of this section of the Contract; and
- 5. The aforesaid provisions of this section covering every Contract for or on behalf of the state or municipality for the manufacture, sale or distribution of materials, equipment or supplies shall be limited to operations performed within the territorial limits of the State of New York.

ARTICLE 20- NYS DEC STANDARD CONDITIONS FOR CONSTRUCTION CONTRACTS

Add Article 20 to the General Conditions as follows:

SC-20 NYS DEC STANDARD CONDITIONS FOR CONSTRUCTION CONTRACTS

The Contractor agrees to make documented "good faith efforts" to utilize at least 12% Minority Business Enterprise(s) and at least 5% Women's Business Enterprise(s) of the total value Of the Contract. The established MBE/WBE-EEO goals shall be attained in conformance with NYS Executive Law, Article 15-A, as well as applicable NYS Executive Orders and NYSDEC Policies. Failure to attain these objectives or demonstrate positive good faith efforts to do so may lead to appropriate corrective actions by the recipient of the State Assistance Program funds.

Within ten (10) working days of the award of the Contract, the contractor shall submit to the project owner an MBE/WBE-EEO Utilization Plan with a detailed description of each of the subcontract services to be provided by NYS Certified M/WBE's, as well as an estimated dollar amount of each subcontract. The MBE/WBE-EEO goals herein stated are the goals which have been included in the project owner's approved MBE/WBE-EEO Work Plan.

The project owner's Affirmative Action Representative shall review and approve the Contractor's Utilization Plan within ten (10) working days after receipt of such plan if it clearly delineates methods to achieve the established MBE/WB-EEO program goals.

Failure by the Contractor to submit and receive approval from the project owner of the MBE/WBE-EEO Utilization Plan prior to the first request for payment may result in the withholding of progress payments to the Contractor by the project owner. Such withholding of progress payments shall not relieve the Contractor of any requirements of the Contract Documents including the completion of the project within the specified contract time and any construction sequence requirements of the Contract.

Issue: 3/1/04 SC - 8 of 22

Within thirty (30) days of approval of the Contractor M/WBE-EEO Utilization Plan by the project owner the Contractor shall submit copies of legally signed MBE/WBE subcontracts and/or legally signed purchase orders to the project owner's Affirmative Action Representative. These subcontracts and/or purchase orders must include the following information:

- Actual dollar amount;
- 2. Job description;
- Signatures of both parties (Contractor and MBE/WBE); and,
- 4. Date of execution.

NOTE: Purchase orders must be accompanied by copies of both sides of legally signed and cancelled checks.

The Contractor is advised that failure to submit the referenced MBE/WBE support documentation within the time frame stipulated may be grounds for the withholding of progress payments by the owner. Such withholding of progress payments shall not relieve the Contractor of any requirements of the Contract Documents including the completion of the project within the specified contract time and any construction sequence requirements of the Contract. If MBE/WBE suppliers are used for MBE/WBE goal crediting purposes, credit will be applied as follows:

- For MBE/WBE suppliers who are manufacturers for manufacturers' official representatives warehousing such goods, 100 percent of the MBE/WBE objective may be credited.
- But, for non-manufacturer suppliers, only 25 percent of the MBE/WBE objective may be credited.

Only NYS Certified Minority/Women Business Enterprises may be utilized for MBE/WBE Program crediting purposes. Contractor/Consultants and project owners must ensure that firms proposed for MBE/WBE participation are NYS Certified.

ARTICLE 21 - PROVISIONS REQUIRED BY LAW DEEMED INSERTED

Add Article 21 to the General Conditions as follows:

SC-21 PROVISIONS REQUIRED BY LAW DEEMED INSERTED

Each and every provision of law and clause required by law to be inserted in this contract shall be deemed to be inserted herein and the contract shall be read and enforced as though it were included herein, and if through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon the application of either party

the contract shall forthwith be physically amended to make such insertion or correction.

ARTICLE 22 - PROTECTION OF LIVES AND HEALTH

Add Article 22 to the General Conditions as follows:

SC-22 PROTECTION OF LIVES AND HEALTH

SC-22.1 The Contractor shall exercise proper precaution at all times for the protection of persons and property and shall be responsible for all damages to persons or property, either on or off the site, which occur as a result of his prosecution of the work. The safety provisions of applicable laws and building and construction codes, in addition to specific safety and health regulations described by Chapter XIII, Bureau of Labor Standards, Department of Labor, part 1518, Safety and Health Regulations for construction, as outlined in the Federal Register, volume 36, No. 75, Saturday, April 17, 1971. Title 29 - Labor, shall be observed and the Contractor shall take or cause to be taken, such additional safety and health measures as the Contracting Authority may determine to be reasonably necessary.

Issue: 3/1/04 SC - 9 of 22

SC-22.2 The Contractor shall develop a written Health and Safety Program consistent with the requirements of the General Requirements of the Contract. This document shall be submitted to the Engineer for review. Acceptance of this Program by the Engineer does not in any way indicate or imply that the Program as submitted necessarily meets the requirements of applicable health and safety regulations or standards, and the Engineer will not be held liable for such.

ARTICLE 23 – OTHER PROHIBITED INTERESTS

Add Article 23 to the General Conditions as follows:

SC-23 OTHER PROHIBITED INTERESTS, CONFILICTS OF INTEREST

No official of the Owner who is authorized in such capacity and on behalf of the Owner to negotiate, make, accept or approve, or to take part in negotiating, making, accepting, or approving any architectural, engineering, inspection, construction or material supply contract or any subcontract in connection with the construction of the project, shall become directly or indirectly interested personally in the contract or in any part hereof. No officer, employee, architect, attorney, engineer or inspector of or for the Owner who is authorized in such capacity and on behalf of the Owner to exercise any legislative, executive, supervisory or other similar functions in connection with the construction of the project, shall become directly or indirectly interested personally in this contract or in any part thereof, any material supply contract, subcontract, insurance contract, or any other contract pertaining to the project.

ARTICLE 24 – NYSDEC MANDATORY CONTRACT PROVISIONS

Add Article 24 to the General Conditions as follows:

The mandatory contract provisions required by NYSDEC Construction Contract Appendix A and Appendix B shall be a part of this Contract and shall be a part of all sub-Contracts entered into for the completion of work under this Contract.

ARTICLE 25 – NYSDEC CONTRACT REVIEW & APPROVAL

Add Article 25 to the General Conditions as follows:

The NYSDEC Division of Environmental Remediation will examine each of the following for compliance with these Contract Documents and NYSDEC regulations and requirements:

- a. The construction contract award
- B. Contractor and Subcontractor submittals
- results of post-construction confirmation sampling and testing
- D. MBE/WBE and EEO Utilization Plan

Each of these must be approved by the NYSDEC prior to award, proceeding with the work, or acceptance of the work.

ARTICLE 26 – CITY OF SCHENECTADY MANDATORY CONTRACT PROVISIONS

Add Article 26 to the General Conditions as follows:

The mandatory contract provisions required by the City of Schenectady, presented on the following pages SC-11 through SC-22, shall be a part of this Contract and shall be a part of all sub-Contracts entered into for the completion of work under this Contract.

Issue: 3/1/04 SC - 10 of 22

Revised: 4/20/04

Dear Contractor:

As you may know, there are regulations set forth by the Federal Government to assure participation for Minority and Women-Owned Businesses in regard to Affirmative Action.

The City of Schenectady has a Minority/woman Business Enterprise Plan which consists of the following goals for Minority/woman business participation:

5% of the total if the contract amount is in excess of \$10,000 but less than \$25,000;

13% of the total if the contract amount is in excess of \$25,000 but less than \$100,000;

15% of the total if the contract amount is in excess of \$100,000;

6.7% for Minority participation for each trade;

2.6% for Female participation in each trade.

Enclosed, please find copies of the City of Schenectady Minority/Women Business Enterprise (M/WBE) Participation Plan, and an example of an Affirmative Action Plan, which is required for contracts awarded for \$10,000 or more.

The Affirmative Action, M/WBE Coordinator is here to assist you in meeting these goals.

Very truly yours,

Shirley B/Holman,

Affirmative Action Officer

SBH:

attachments:

ADDITIONAL FEDERAL REQUIREMENTS

Please be aware that other Federal requirements must be addressed as contract provisions. These provisions require:

- a) Compliance with Executive Order 11246, "Nondiscrimination Requirements Affecting Applicants for Federal Financial Assistance Involving Construction" as amended by Executive Order 11375 and as supplemented in Department of Labor regulations. To comply, a contractor with contracts exceeding \$10,000 must have an affirmative action plan, declare that it does not discriminate on the basis of race, color, religion, creed, national origin and age, and specify goals and target dates for implementing the plan.
- b) Compliance with the Copeland "Anti-Kick Back" Act as supplemented in Department of Labor regulations.

 To comply, contractors on construction and repair projects cannot induce any person employed on a project to give up any part of his or her just compensation.
- c) Compliance with the Davis-Bacon Act as supplemented by Department of Labor regulations. To comply, contractors on construction contracts which exceed \$2,000 must pay laborers and mechanics at least the prevailing wage rate established by the Department of Labor and must pay wages at least once a week.
- d) Compliance with Sections 103 and 107 of the Contract Work Hours and Safety Standard Act as supplemented by Department of Labor regulations. To comply, contractors on construction projects and certain other types of projects must pay an overtime rate of 1-1/2 times the basic hourly rate (8 hours a day, 40 hours a week is the basis for computing the hourly rate), and contractors must provide safe and healthy work surroundings and conditions.
- e) Compliance with the Clear Air Act of 1970, and the Federal Water Pollution Control Act. To comply, contractors must not create significant air/water pollution at their plants or business sites.

AFFIRMATIVE ACTION

Chapter 61

AFFIRMATION ACTION

ARTICLE I Reaffirmation: Adoption

- 4 6-1. Reaffirmation.
- \$ 6-2. Adoption as evidence of intent to comply.

ARTICLE II Affirmative Action Policy

- 4 6-3. Preamble and statement of policy.
- 4 6-4. Administration.
- 4 6-5. Organization.
- \(\begin{align*} \ 6-6. \ Contracts with minority-and women-owned businesses. \)
- § 6-7. Affirmative Action Advisory Board.
- 4 6-8. Communication of the program.
- 4 6-9. Classification management.
- 4 6-10. Recruitment and other personal actions.
- \$ 6-11. Examination, certification and appointment.
- § 6-12. Upward mobility and training.
- \$ 6-13. Employment goals.
- 4 6-14. Procedures.

[HISTORY: Adopted by the Council of the City of Schenectady 6-16-86 as Ord. No, 86-43. Amendments noted where applicable.]

Editor's note: Former Ch. 6 Affirmative Action, adopted 8-27-79 as res. No. 79-165, as amended, was repealed 6-16-86 by Res. No. 86-138.

SCHENECTADY CODE

GENERAL REFERENCES

Employee organization - See Ch. 39. Ethics - See Ch.48. Grievance Procedures - See Ch. 60. Personnel - See Ch. 87. Workers compensation - See Ch. 111.

ARTICLE I

Reaffirmation: Adoption

\$ 6-1. Reaffirmation. [Amended 9-19-88 by Ord. No.88-75]

The City of Schenectady does hereby reaffirm its policy to ensure equal opportunity in employment and contracting for all persons and provide employment, placement, training, promotion, salary and contracting opportunities without regards to race, sex, color, national origin, religion, political affiliation, age, physical handicap, Vietnam-era ventral status or any other nonmeritorious factor. The City shall promote full realization of equal opportunity through a continuing, effective affirmative action program applicable to each department, bureau, agency and board of the City and to all contractors, suppliers, grant recipients, etc. The program shall be integral part of the total personnel management and purchasing program.

\$ 6-2. Adoption as evidence of intent to comply.

The City of Schenectady, as evidence of its intent to comply with basic polices and procedures necessary for effective uniform and judicious enforcement of equal opportunity standards, does hereby adopt the attached affirmative action policy.

ARTICLE II Affirmative Action Policy

4 6-3. Preamble and statement of policy. [Amended 9-19-88 by Ord. No. 88-75]

A. Affirmative action programs are the creation of action-oriented initiatives that will assure, to the maximum extent possible the same placement, training, promotion and salary opportunities to all segments of the community. Employment and contracting opportunities shall be provided to all applicants, employees, contractors and vendors applicable based on individual merit and fitness, without regard to race, color, national origin, religion, sex, age, Vietnam-era veterans, handicap or political affiliation in accordance with all applicable federal, state and local laws.

AFFIRMATIVE ACTION

- B. The City of Schenectady believes that the best interest of the community and the city government organization will be served by full compliance with the spirit and the letter of the Civil Rights Act 1964, the Equal Employment Opportunity Act of 1972, the president's Executive Order No.11246, as amended, and other federal and state legislative and judicial. To this end, the city's affirmative action program establishes the employment practices, policies, procedures and environment consistent with providing equal employment opportunity to all persons regardless of race, color, national origin, religion, sex, age, handicap, political affiliation or Vietnam-era veteran.
- C. It shall be the policy of the City of Schenectady to promote equal opportunity and affirmative action in employment to all qualified persons and employees and to base all employment decisions so as to further the principle of equal employment opportunity. To this end, the City of Schenectady will not discriminate against any person or employee because of race, color, national origin, religion, sex, age, handicap, political affiliation or Vietnam-era veterans, and will take affirmative action to ensure that equal employment opportunity is realized.
- D. This policy reflects the commitment of the City of Schenectady to provide affirmative action in all areas of employment. It shall be the responsibility and obligation of the Chief Executive Officer, and the directors of the city's departments and bureaus, to assure that equal employment opportunity is afforded to all. All employment activities, including but not limited to advertising, recruiting, hiring, promotion, demotion, transfer, layoff discharge, rate of pay and selection for training shall be conducted without regard to race, color, national origin, religion, sex, age, handicap, political affiliation.
- E. The Employment Opportunity Act of 1972, extended coverage of Title VII of the Civil Rights Act 1964, to state and local government. Prior statements prohibiting discrimination, and previous affirmative action plan, without designating responsibility for enforcement and monitoring, were not sufficient to carry out an effective Affirmative Action Program.
- F. This Affirmative Action Program is the method for documenting and formulating the City of Schenectady's commitment to equal opportunity. It includes an outline of objectives, assigns responsibility, establishes time frames, and provides for the measurement of our effectiveness in meeting these objectives on an ongoing basis. The Affirmative Action Program is an integral part of the personnel management system. It requires the city government to take an objective look at all segments of its personnel program, to insure that all personnel-related decisions are based solely on job related factor and to eliminate extraneous factors and obstruction with affirmative action.

SCHENECTADY CODE

- G. It shall be the policy of the City of Schenectady, in accordance with Federal, State and local laws and ordinances to require the submission of an affirmative action plan acceptable under those Federal, State and Local laws and ordinances prior to the award of contracts to all contractors, subcontractors, vendors, suppliers, consultants, grant recipients, developers, redevelopers, and all other persons who do business with the city.
- H. The City of Schenectady shall provide written notification of this policy to the above in all its advertisements, bid solicitations and communication.

4 6-4. Administration.

- A. The Chief Executive Officer of the City of Schenectady and City Council are bound by the provisions of the various civil rights acts and executive orders to make personnel and contracting decisions without regards to race, color, religion, sex, national origin, age handicap, political affiliation or Vietnam-era veteran status.[Amended 9-19-88 by Ord. 88-75]
- B. The Chief Executive Officer of the City of Schenectady shall be responsible for implementation of the city's affirmative action program.
- C. The Chief Executive Officer shall appoint an Affirmative Action Officer (AAO) who will be responsible to the Chief Executive Officer for administering the city's affirmative action program. The AAO shall be furnished with the official, organizational and financial resources necessary to effectively fulfill his or her duties and responsibilities.
- D. The AAO shall report directly to the Chief Executive Officer or the designee of the Chief Executive Officer.
- E. The AAO, in concert with the department directors, bureau heads, supervisory personnel, the various advisory boards and other city agencies, shall communicate the various provisions of the affirmative action program to the city work force and to the general public.
- F. All department and bureau heads, supervisory personcl, chairpersons of the various boards and other city agencies are hereby bound by the provisions of the various Civil Rights Acts and Executive Orders to make personnel and contracting decisions without regards to race, color, religion, sex, national origin, age handicap, political affiliation or Vietnam-era veteran.

AFFIRMATIVE ACTION

4 6-5. Organization.

The AAO shall have the following responsibilities:

- A. The AAO shall head the affirmative action/equal opportunity program within the office of the Chief Executive.
- B. The AAO shall have sufficient education and/or sufficient experience in personnel management, intergroup relations and an understanding of minority issues.
- C. The AAO shall be responsible for managing and administering the city affirmative action plan. Those responsibilities shall include, but not limited to, the following:
 - (1) Preparing and continuously maintaining up-to-date data on the City of Schenectady's work force. This data should be organized by function, salary, job categories, race, national origin and sex for full-time, part-time and new hires.
 - (2) Assisting employees in preparing for promotional opportunities.
 - (3) Developing training programs to assist candidates preparing for civil service examinations.
 - (4) Furnishing periodic reports to federal, state and local government and to the people of the City of Schenectady on the progress in meeting affirmative action goals.
 - (5) Providing city department directors, bureau heads, supervisory personnel and the chairmen and heads of various boards and agencies training, counseling and guidance to meet city affirmative action goals.
 - (6) Assisting contractors and subcontractors in complying with required regulations.
 - (7) Developing a pool of qualified minority and women candidates by promoting the city's affirmative action program through civic groups, neighborhood organization, the news media, educational institutions and other public forums in coordinated recruitment efforts with the department of Civil Service.
 - (8) Receiving input from sources as noted above on a continuing basis. A forum shall be held periodically for citizens and employees to raise questions concerning equal

employment opportunity and the affirmative action policy.

- (9) Serving as staff to the city's Affirmative Action Advisory Board, to attend their meetings and to assist them in carrying out their mandates as set forth by the Chief Elected Official.
- (10) Conducting a semiannual audit and evaluation of the city's affirmative action program and submitting the same to the Chief Elected Official and agency department heads.
- (11) Receiving complaints of discrimination from aggrieved employees and candidates for employment and attempting to resolve complaints prior to a formal hearing process.

\$ 6-6. Contracts with minority-and women-owned businesses.

The city shall employ practices to ensure the participation of minority-and women-owned businesses in all aspects of city contractual agreements. These practices shall be consistent with federal and state laws and directives. The EEO Director shall participate in the identification of potential vendors and monitor contract compliance.

4 6-7. Affirmative Action Advisory Board.

- A. An Affirmative Action Advisory Board Shall be appointed by the Chief Executive Officer with the concurring vote of a majority of the members of the City Council. This Board shall concern itself with all aspects of equal opportunity in hiring, employment, promotion, complaints, purchasing and contracting.
- B. The Affirmative Action Advisory Board shall review and approve the city's affirmative action goals based on compliance with federal, state and local laws. The board shall conduct an annual evaluation of each affirmative action goal and shall monitor the city's performance in meeting program goals and recommend changes as needed to the Chief Executive Officer.
- C. The Affirmative Action Board is also empowered to conduct citywide public hearing on affirmative action issues of interests, to the public.
- D. The Board shall be composed of nine (9) members who are representative of the community; two (2) members representing women's interest, one (1) member representing Hispanic interest, two (2) members representing minority interests, one (1) members representing the disabled interest and three (3) additional members who are sensitive to the problems of intergroup relations and represent various segments of the city. Appointments shall be to three-year terms staggered bases. [Amended 5-30-89 by Ord. No. 89-48]

E. The board shall be provided with necessary resources to fulfill its missions.

SCHENECTADY CODE

4 6-8. Communication of the program.

The Chief Executive Officer shall ensure that the city's policy is effectively communicated to the work force and the community. Implementation of this objective shall be carried forth by the affirmative action office.

\$ 6-9. Classification management.

Current job specifications shall be reviewed and evaluated by the EEO Director in conjunction with Personnel Director and reviewed by department head to ensure compliance with all federal, state and local laws and this policy on a regular basis. The EEO Director shall report the findings to the appropriate heads.

h 6-10. Recruitment and other personnel actions.

The EEO Director shall participate in a comprehensive recruitment program to meet the employment goals of this plan. Special efforts shall be made to recruit females and minorities for those job categories in which they are under utilized.

4 6-11. Examination, certification and appointment.

- (1) It shall be the policy of the city to ensure widespread prior announcement of civil service examinations as far in advance as possible. The city shall take affirmative action to ensure that announcements reach minority and female prospective applicants. Announcements shall be sent to but not limited to local newspapers, radio, minority, community and civic organizations, churches and responsible community individuals.
- (2) The Equal Employment Director or the personnel staff shall work in conjunction with state local civil service officials to review examinations and their results for indications of cultural bias in examination procedures.
- (3) Procedures for promotional examinations and selection will be reviewed to determine whether minority groups and women are adversely affected. Revisions will be recommended as necessary.

. AFFIRMATIVE ACTION

4 6-12. Upward mobility and training.

It is the policy of the city employees to gain promotions and to move up to higher paying and more responsible positions. The city shall appraise all its employees of promotional opportunities and assist them in preparing for these higher positions with training programs, the tuition assistance program and the development of a policy regarding educational leave. In addition, information shall be provided on other training resources available in the community.

h 6-13. Employment goals.

- A. The city government shall put forth a good faith effort toward the implementation of equal employment opportunity principles through the establishment of measurable employment goals.
- B. The annual city EEO-4 report shall provide the basis for the development of a relevant and achievable affirmative action plan which shall incorporate a variety of activities which will promote the best and most practical means to increase the number of minority and female employees represented.

\$ 6-14. Procedures.

The Chief Executive Officer shall promulgate procedures consistent with the City of Schenectady affirmative action program as outlined above. Such procedures shall be promulgated with the advice and consent of the Affirmative Action Board.

CERTIFICATION OF NON-SEGREGATED FACILITIES

and that he does not permit his employees to atrol, where segregated facilities are maintained. Itain or provide for his employees any segregated will not permit his employees to perform their regated facilities are maintained. The Contractor relation of the Equal Opportunity clause in any sused in this certification, the term "segregated estrooms, and washrooms, restaurants, and other storage or dressing areas, parking lots, drinking asportation, and housing facilities provided for we or are in fact segregated on habit, local custom, where he has obtained identical certification from ds, he will obtain identical certifications from beontracts exceeding \$10,000.00 which are not mity clause, and he will retain such certifications
ments in offers is prescribed in 18 U.S.C. Section
(Name of Contractor)
Ву:
(Title)

CONTRACTOR'S CERTIFICATE OF COMPLIANCE*

NAME OF PROJECT PROJECT NUMBER	****
LOCATIONDATE	
CONTRACT FOR:	
CONTRACT AWARDED:DATE	
DATE	
"I hereby certify that all of the contract requirements as	
specified under the Labor Standards, including applicable	
provisions of Sections 220, 220a thru to 220e and 222 of the	
Labor Laws of the State of New York, have either been complied	
with by	
as Principal Contractor and by each Subcontractor employing	
mechanics or laborers at the site of the work or that there is	
an honest dispute with respect to the applicability of a	
provision."	
	SIGNATURE
Subscribed and sworn to before me	TITLE
Subscribed and sworn to before me	
thisday of,20	
thisday of,20 SIGNATURE	
SIGNATURE	
SIGNATURE	
SIGNATURE	

END OF SUPPLEMENTARY CONDITIONS

NEW YORK STATE PREVAILING WAGE RATES

NEW YORK STATE DEPARTMENT OF LABOR BUREAU OF PUBLIC WORK STATE OFFICE CAMPUS, BLDG. 12 ALBANY, NY 12240

SCHEDULE 2003

03/15/04

C/O SCHENECTADY

PRC 0402441 SCHENECTADY COUNTY

01

HOLT CONSULTING 620 WASHINGTON AVE Location and Type of Project PROJECT ID #: B00053-4 ENVIRONMENTAL RESTORATION PROJECT, BROWNFIELD LOT #6, RIVERSIDE TECH.

RENSSELAER

NY 12144 LOT #6, RIVERSIDE PARK, SCHENECTADY

In response to your request, enclosed is the schedule of the prevailing hourly wage rates and the prevailing hourly supplements for the above project, together with copies of the Notice of Contract Let (PW-16) for your use.

THE SCHEDULE MUST BE ANNEXED TO AND FORM A PART OF THE SPECIFICATIONS FOR THIS PROJECT WHEN IT IS ADVERTISED FOR BIDS.

These schedules have been prepared and forwarded in accordance with Article 8 of the NYS Labor Law, which provides that it shall be the duty of the fiscal officer to ascertain and determine the schedules of supplements to be provided and wages to be paid to workers, labor and mechanics employed on public work projects, and to file such schedules with the Department having jurisdiction.

This schedule is effective from July 1, 2003 through June 30, 2004. All updates, corrections and future copies of the annual determination are available on the Department's website (www.labor.state.ny.us).

The attached rates are based on the latest information available to the Department of Labor, Bureau of Public Work. 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 rate. If there is a question on the proper classification to be used, please call the district office located nearest the project.

NOTICE TO CONTRACTING AGENCIES:

Upon cancellation or completion of this project, enter the necessary information and return this page to:

New York State Department of Labor Bureau of Public Work State Office Campus, Bldg. 12 Albany, NY 12240

PROJECT HAS BEEN COMPLETED/CANCELLED:

Date					
Signature					
Title					
For additional	information,	contact our	local Dis	strict	Offices:
Albany Binghamton Buffalo Garden City New York City	(518) 457-274 (607) 721-800 (716) 847-715 (516) 228-391 (212) 352-608	Roche General Roche General Roche General Roche General Roche	ster	(716) (315)	428-4056 258-4505 793-2314 997-9507

PW-200 (6-03)

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 Let 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.

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.

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 be 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 from the:

New York State Department of Labor Bureau of Public Work State Office Campus, Bldg. 12 Albany, NY 12240

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 provide copies to each subcontractor and obtain an affidavit certifying such schedule was received.

The Commissioner of Labor makes an annual determination of the prevailing rates. This determination is in effect from July 1 thru June 30 of the following year. The annual determination is available on the Department of Labor website (www.labor.state.ny.us). The prime contractor is required by law to provide copies of all applicable county schedules to each subcontractor and to obtain from each and every subcontractor an affidavit certifying that such schedules were received. If the original schedule expired, the contractor may obtain a copy of the new annual determination from the Department's website. website.

PAYROLLS AND PAYROLL RECORDS

Every contractor and subcontractor must keep original payrolls or transcripts subscribed and affirmed as true under penalty of perjury. Payrolls must be maintained for at least three years from the project's date of completion. At a minimum, payrolls must show the following information for each person employed on a public work project:

- × Name
- Classification(s) in which the worker was employed

- * Hourly wage rate(s) paid

 * Supplements paid or provided

 * Daily and weekly number of hours worked in each classification.

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 receive and maintain such payrolls.

In addition, the Commissioner of Labor may require contractors to furnish, within ten 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 days will result in the withholding of up to 25% of the contract, not to exceed one hundred thousand dollars. 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, 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 of the Labor Law. See Section 220-a.

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 Section 220-a.

<u>DETERMINATION OF PREVAILING WAGE AND SUPPLEMENT RATE UPDATES APPLICABLE TO ALL</u>

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 Department's 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.

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 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.

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.

APPRENTICES

Employees cannot be paid apprentice rates unless they are individually registered in a program registered with the New York State 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.

Article 8 of the New York State Labor Law requires that only apprentices individually registered with the New York State Department of Labor may be paid apprenticeship rates on a public work project. No other Federal or State Agency or office registers apprentices in New York State.

Persons wishing to verify the apprentice registration of any person must do so in writing to the:

New York State Department of Labor Office of Employability Development/Apprenticeship Training State Office Campus, Bldg. 12 Albany, NY 12240

Fax (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 Albany Apprenticeship Training Central Office. Neither Federal nor State Apprenticeship Training offices outside 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.
- \times 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 years when:

- * Two willful determinations have been rendered against that contractor or subcontractor and/or its successor within any consecutive six-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) constitute a misdemeanor punishable by fine or imprisonment, 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. See 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. See 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 fifty dollars for each calendar day during which such person was discriminated against or intimidated in violation of the provisions of the contract. See 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. See 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 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.

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.

•
_
_
-
-
-
-
-
-
-
-
-
•
-
•
-
•
_
_
-
-



NEW YORK STATE DEPARTMENT OF LABOR

Bureau of Public Work State Office Campus, Bldg. 12 Albany, NY 12240

C/O SCHENECTADY	
•	Schedule Type
	Date 03/15/04
HOLT CONSULTING 620 WASHINGTON AVE	Prevailing Rate Case No.
RENSSELAER NY 12144	0402441 01 PROJECT ID #: B00053-4 ENVIRONMENTAL RESTORATION PROJECT, BROWNFIELD
SCHENECTADY COUNTY AGY. OF JURIS. : CITY NAT. OF PROJECT: OTHER RECON, MAINT, REPAIR, ALT	LOT #6, RIVERSIDE TECH.
Copies of the wage and supplement schedule for the Public Sec. 220.3a of the Labor Law requires that certain information by	
	uests for EACH prime contract let immediately upon oject. Photocopy as many blank forms as required to
Return this request to the address given above	
Project CANCELLED, POSTPONED or assigned to ager supplements will be requested.	ncy's own employees. If reactivated, new rates and
☐ CONTRACT AWARDED: (check one and indicate date of	f first legal instrument which bound agency to contract.)
Letter of Intent Contract Signed _	Resolution
Work to be done by this prime contractor:	
Type of Contract: CHECK APPLICABLE TYPE	:
	g/Ventilation (03) Electrical
Contractor Information: ALL INFORMATION MUST BE SUF Federal Employer Identification Number: Name: Address:	()
	Zip:
Amount of Contract Appro	eximate Starting Date:/
Approximate Completion Date:/	·
Estimated Date Entire Project Will be Completed:/	
CONTRACTS NOT YET AWARDED	
Type of Contract (Check all applicable contract ty	ypes)
(01) General Construction (02) Heating/Ventilat (04) Plumbing (05) Other	
Signature	 Date

	-
	-
	_
	•
	-
	_
	-
	-
	-
	-
	•
	_
	-
	•
	-
	-
	•
	•
	•
	_
	400

-----Case Number-----

0402441 SCHENECTADY

2003

Schenectady County General Construction Rates

Prevailing Wage Rates for 07/01/03 - 06/30/04

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, building, 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.

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

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 for each hour worked, some classifications require the payment or provision of supplements for each hour paid (including paid holidays on which no work is performed) and/or may require supplements to be paid or provided at a premium rate for premium hours worked.

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.state.ny.us) for current wage rate information.

APPRENTICE TRAINING RATIOS

The following are the allowable ratios of registered Apprentices to Journeyworkers. 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

-----Case Number-----0402441 SCHENECTADY

2003

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.

Title (Trade)	Ratio
Boilermaker Mason Carpenter Electrical (Outside) Lineman Electrician (Inside) Elevator/Escalator Construction & Modernizer Glazier Insulation & Asbestos Worker Iron Worker Laborer Op Engineer Painter Plumber & Steamfitter Roofer Sheet Metal Worker	1:1:1:1:1:1:1:1:1:1:1:1:1:1:1:1:1:1:1:
Sprinkler Fitter	1:1,1:2

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 - Albany Bureau of Public Work - Binghamton Bureau of Public Work - Buffalo Bureau of Public Work - Garden City Bureau of Public Work - New York City Bureau of Public Work - Rochester Bureau of Public Work - Syracuse Bureau of Public Work - Utica Bureau of Public Work - White Plains Bureau of Public Work - Central Office	518-457-2744 607-721-8005 716-847-7159 516-228-3915 212-352-6088 585-258-4505 315-428-4056 315-793-2314 914-997-9507 518-457-5589	518-485-0240 607-721-8004 716-847-7650 516-794-3518 212-352-6580 585-258-4701 315-428-4671 315-793-2514 914-997-9523 518-485-1870

(7/01/2003) NOTES Admin.

OVERTIME/HOLIDAY CODES

OVERTIME

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.

- (A) Time and one half of the hourly rate after 7 hours per day. (AA) Time and one half of the hourly rate after 7 and one half hours
- per day. (B) Time and one half of the hourly rate after 8 hours per day.

-----Case Number-----

0402441 SCHENECTADY

2003

```
SCHENECTADY

SCHENECTADY

OHENECTADY

OHENECTADY

SCHENECTADY

OHENECTADY

OHE
```

NOTE:BENEFITS are PER HOUR WORKED, for each hour worked, unless otherwise noted

HOLIDAYS

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.

None.
 Labor Day.

```
Prevailing Rate Schedule
 New York State
                                                                                                                                                                       Department of Labor
                                        .
-----Case Number-------
                                                                                            0402441
SCHENECTADY
                                                                                                                                                                                                                 2003
            3 ) Memorial Day and Labor Day.
4 ) Memorial Day and July 4th.
5 ) Memorial Day, July 4th, and Labor Day.
6 ) New Year's Day, Thanksgiving Day, and Christmas Day.
7 ) Lincoln's Birthday, Washington's Birthday, and Veterans Day.
               New Year's Birthday, Washington's Birth Good Friday.
Lincoln's Birthday.
Lincoln's Birthday.
Lincoln's Birthday.
Lincoln's Birthday.
Columbus Day.
Election Day.
Presidential Election Day.
1/2 Day on Presidential Election Day.
Veterans Day.
Day after Thanksgiving Day.
July 4th.
1/2 Day before Christmas Day.
1/2 Day before New Years Day.
Thanksgiving Day.
New Year's Day.
Christmas Day.
Christmas Day.
Day before Christmas.
Day before New Year's Day.
Presidents' Day.
Martin Luther King, Jr. Day.
          10
         16
17
         1890123
Asbestos Worker
ALBANY COUNTY:
DELAWARE COUNTY:
FULTON COUNTY:
HAMILTON COUNTY:
Entire County
RENSSELAER COUNTY:
SCHENECTADY COUNTY:
SULLIVAN COUNTY:
WARREN COUNTY:
WAGES: (per hour)

7/01/2003
                                                                                                        COLUMBIA COUNTY:
ESSEX COUNTY:
GREENE COUNTY:
MONTGOMERY COUNTY:
SARATOGA COUNTY:
SCHOHARIE COUNTY:
ULSTER COUNTY:
WASHINGTON COUNTY:
                                                                                                                                                                  Entire County
                                                                     7/01/2003
Asbestos Worker......$21.19
Insulator............21.19
Firestopping Worker...... 14.97*
* On Mechanical Systems only.
OVERTIME PAY: See ( B, D1, 0* ) on OVERTIME PAGE. * Triple time on Labor Day.
HOLIDAYS:
Paid:..... See ( 1 ) on HOLIDAY PAGE.
Overtime:..... See ( 5,6 ) on HOLIDAY PAGE.
APPRENTICES: ( 1 ) year terms at the following percentage of Journeyman's wage.
1st.
50%
                                 2nd.
SUPPLEMENTAL BENEFITS: (per hour worked)
 Journeyman &
Apprentices..... $ 11.92
                                                                                                                                                                                                    1-40
Asbestos Worker - Abatement Only
ALBANY COUNTY: Entire County
                                                                                                     CLINTON COUNTY: Entire County
```

```
Page 05
                                                Prevailing Rate Schedule
New York State
                                                                                                                        Department of Labor
                             -----Case Number-----
                                                                         0402441
                                                                  SCHĚNĚČTADY
                                                                                                                                                      2003
                                                                          FRANKLIN COUNTY: Entire County
HAMILTON COUNTY: Entire County
RENSSELAER COUNTY: Entire County
SCHENECTADY COUNTY: Entire County
WASHINGTON COUNTY: Entire County
10/01/03
ESSEX COUNTY: Entire County
FULTON COUNTY: Entire County
MONTGOMERY COUNTY: Entire County
SARATOGA COUNTY: Entire County
WARREN COUNTY: Entire County
WARREN COUNTY: Entire County
                                      Entire County
7/01/2003
WAGES: (per hour)
Asbestos Worker
Removal & hazardous
abatement Only.....$ 16.57
                                                                                       16.87
Only for the removal of insulation materials from mechanical systems which are not going to be scrapped. For ALL other removal work, please refer to the appropriate Building Laborer category.
OVERTIME PAY:..... See ( B,E,Q*,T*,V) on overtime page.
HOLIDAYS:
SUPPLEMENTAL BENEFITS (per hr. paid):
                                                            $ 9.85
                                                                                            9.85
Journeyman ..........
                                                                                                                         1-201North
Boilermaker
ALBANY COUNTY:
CHENANGO COUNTY:
DELAWARE COUNTY:
FULTON COUNTY:
HAMILTON COUNTY:
HAMILTON COUNTY:
Entire County
MONTGOMERY COUNTY:
RENSSELAER COUNTY:
SCHENECTADY COUNTY:
TIOGA COUNTY:
WASHINGTON COUNTY:
WAGES: (per hour)

Entire County
Entire County
Entire County
County
Entire County
TIOGA COUNTY:
WAGES: (per hour)
                                                                                           BROOME COUNTY
COLUMBIA COUNTY:
ESSEX COUNTY;
GREENE COUNTY:
HERKIMER COUNTY:
OTSEGO COUNTY:
SARATOGA COUNTY:
SCHOHARIE COUNTY:
WARREN COUNTY:
                                                                                                                               Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
                                                                                                                               Entire County
Entire County
                                      Entire County
07/01/2003
WAGES: (per hour)
Boilermaker.....$24.73
OVERTIME PAY:........See ( B,E,Q*,) on OVERTIME PAGE. *-DOUBLE TIME AFTER TEN HOURS ON MON.-SAT.
Paid:.......... See ( 1 ) on HOLIDAY PAGE.

Overtime:...... See ( 5, 6,10,11,15 ) on HOLIDAY PAGE.
APPRENTICES: ( 1/2 ) year terms at the following percentage of Journeyman's
wage.
1st.
65%
                                3rd.
                65%
                                                                80%
```

SUPPLEMENTAL BENEFITS: (per hour worked)

Carpenter - Building ALBANY COUNTY: Entire County

Journeymen &

Apprentices.

5.09 Plus 40% of

Gross Wages

1 -197

Carpenter - Heavy Highway

New York State	Case Number	Department of Labor
	0402441 SCHENECTADY	2003
FULTON COUNTY: Entire Co MONTGOMERY COUNTY: Entire Co RENSSELAER COUNTY: Entire Co SCHENECTADY COUNTY: Entire Co SCHOHARIE COUNTY: Entire Co	ounty ounty ounty ounty ounty	
WAGES: (per hour) 7/0	01/2003 6/01/04 6/01/05 Addit. Addit.	
Ury-Wall Applicator Lather Piledriver Diver-Wet Day Diver -Dry Day Diver Tender	1.45 1.50 22.15 22.15 22.15 22.15 22.15 22.15 22.15 22.65 52.50 53.75 55.00 23.30 23.30 23.65	
Hazardous site pay, requiring PER HOUR.		additional \$1.50
Millwright	6/01/04 6/01/05 22.65* Addit. Addit. 1.45 1.50 23.90* ne Millwrights only.	
OVERTIME PAY: See		
HOLIDAYS: Paid:	(1) on HOLIDAY PAGE.	
APPRENTICES: indentured BEFORM (1/2) year terms at the following		man's wage:
lst. 2nd. 3rd. 4th. 50% 55% 60% 65%		th. 5%
APPRENTICES: indentured AFTER l year terms at the following	5/31/02: percentage of Journeyman's a	√age:
1st 2nd 3rd 4th 50% 60% 70% 80%		
SUPPLEMENTAL BENEFITS: (per ho	our worked)	
Journeyman\$	8.69	
Apprentices: 1st year terms\$ 2nd year terms 3rd year terms 4th year terms	3.48 6.54 8.69 8.69	
Millwright Apprentices: lst year terms 2nd year term	3.845 6.265	
		1-370

```
------Case Number-----
                                                                   0402441
                                                             SCHENECTADY
                                                                                                                                          2003
ALBANY COUNTY: Entire County
FULTON COUNTY: Entire County
MONTGOMERY COUNTY: Entire County
RENSSELAER COUNTY: Entire County
SCHENECTADY COUNTY: Entire County
SCHOHARIE COUNTY: Entire County
WAGES: (per hour)
                                                                      7/01/04 7/01/05
Addit. Addit.
1.35 1.35
                                                  7/01/2003
                                                                                                       7/01/06
 Heavy/Highway:
                                                                                                         Addit.
                                                   $ 23.34
23.34
23.34
24.84
52.50
24.49
24.49
53.75
                                                                                        55.00
                                                                                                         56.25
 Tender.....
OVERTIME PAY:..... See ( B,E,E2,Q,) on OVERTIME PAGE.
HOLIDAYS:
Paid:..... See ( 2,17 ) on HOLIDAY PAGE. Overtime:.... See ( 5,6 ) on HOLIDAY PAGE.
APPRENTICES: indentured BEFORE 5/31/02 (1/2) year terms at the following perentage of Journeyman's wage:
                                            4th.
65%
                                                           5th.
70%
                                                                          6th.
75%
               55%
                              60%
APPRENTICES: indentured AFTER 5/31/02: 1 year terms at the following percentage of Journeyman's wage:
                                            4th
80%
                              3rd
70%
SUPPLEMENTAL BENEFITS: (per hour worked)
Journeyman..... $ 8.69
Apprentices:
$ 3.48
6.54
8.69
                                                                                                                             1-370h/h
Electrician
OTSEGO COUNTY:Only the Towns of Decatur and Worchester
GREENE COUNTY: All of the city of Catskill and that portion of the county
that lies north of Route 23A.
ALBANY COUNTY: Entire County COLUMBIA COUNTY: Entire County
FULTON COUNTY: Entire County HAMILTON COUNTY: Entire County
MONTGOMERY COUNTY: Entire County RENSSELAER COUNTY: Entire County
SARATOGA COUNTY: Entire County SCHENECTADY COUNTY: Entire County
WASHINGTON COUNTY: Entire County
WASHINGTON COUNTY: Entire County
WASHINGTON COUNTY:
                                     Entire County
ELECTRICIAN
WAGES: (per hour)
                                                     7/01/2003
Electrician.....Audio/Sound.....
                                                           26.00
26.00
```

WAGES: (per hour)

```
Prevailing Rate Schedule
     New York State
                                                                                                                                                                                                                                                                                                                   Department of Labor
                                                                       0402441
SCHENECTADY
                                                                                                                                                                                                                                                                                                                                                                                               2003
    Certified Welder.....
                                                                                                                                                                     28.60
    An additional 5% above rate for work over 30' above floor when working on tooth picks, structural steel, temp. platforms, swing scaffolds & boatswain
    chairs
An additional 10% above rate on towers & smoke stacks over 100' high.
An additional 20% above rate in shafts over 25' deep & tunnels over 50' lg
    HOLIDAYS:
    APPRENTICES: (hour) terms at the following percentage of Journeyman's wage. 6mo. lyr. 2yr. 3rdyr. 4thyr. 5thyr. (40% 45%) (50% 60% 70% 80%) (1000 Hr's ea.)
    SUPPLEMENTAL BENEFITS: (per hour worked)
 $ 11.68 +3% of Gross Wages
                                                                                                                                                                5.75
5.75
11.68
11.68
                                                                                                                                                                                                                                 **
                                                                                                                                                                                                                                 ••
                                                                                                                                                                                                                                 **
                                                                                                                                                                     11.68
                                                                                                                                                                                                                                **
                                                                                                                                                                                                                                 11
Electrician Lineman
ALBANY COUNTY: Entire County ONONDAGA
BROOME COUNTY: Entire County ONTARIO COUNTY: Entire County ONTARIO COUNTY: Entire County ORANGE COUNTY: Entire County ORANGE COUNTY: Entire County ORANGE COUNTY: Entire County ORANGE COUNTY: Entire County OTSEGO COUNTY: Entire County OTSEGO COUNTY: Entire County OTSEGO COUNTY: Entire County PUTNAM COUNTY: Entire County PUTNAM COUNTY: Entire County RENSSELAE COUNTY: Entire County ROCKLAND CORTLAND COUNTY: Entire County SARATOGA COUNTAND COUNTY: Entire County SCHENECTA DUTCHESS COUNTY: Entire County SCHOHARIE ENTIRE COUNTY: Entire County SCHOHARIE ENTIRE COUNTY: Entire County SCHUYLER ESSEX COUNTY: Entire County STEUBEN COUNTY: Entire County STEUBEN COUNTY: Entire County STEUBEN COUNTY: Entire County TIOGA COUNTY: Entire County WASHINGTO COUNTO C
                                                                                                                                                                                                                                                                                                                                                               1-236
                                                                                                                                                                                                ONEIDA COUNTY:
ONONDAGA COUNTY:
ONTARIO COUNTY:
ORANGE COUNTY:
ORANGE COUNTY:
ORANGE COUNTY:
OSWEGO COUNTY:
OTSEGO COUNTY:
PUTNAM COUNTY:
RENSSELAER COUNTY:
ROCKLAND COUNTY:
SCHENECTADY COUNTY:
SCHENECTADY COUNTY:
SCHOHARIE COUNTY:
SCHUYLER COUNTY:
SCHUYLER COUNTY:
STEUBEN COUNTY:
ST. LAWRENCE COUNTY:
ST. LAWRENCE COUNTY:
ST. LAWRENCE COUNTY:
ULSTER COUNTY:
TIOGA COUNTY:
THOMPKINS COUNTY:
WARREN COUNTY:
WASHINGTON COUNTY:
WAYNE COUNTY:
WAYNE COUNTY:
WAYNE COUNTY:
WAYNE COUNTY:
YATES COUNTY:
                                                                                                                                                                                                                                                                                                                    Entire County
                                                                                                                                                                                                                                                                                                                       Entire County
```

0402441 SCHENECTADY

-----Case Number-----

2003

7/01/03

Lineman/Tech./Welder\$	33.79
Cable splicer	33.79
Digging Machine Operator	30.41
Tract Trailer Driver	28.72
	27.03
	27.03
Flagman	20.27

*Additional 1.00 per hr. for crew on helicopter job.

**Above rates applicable on all overhead 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.

56
30
68
15
35
54
19
32
1

*Additional 1.00 per hour on helicopter job.

**Above rates apply on Switching Structures, Maintenance projects, Railroad Catenary install/maint, Third rail installation, Bonding of Rails and pipe type cable and installation of Fiber Optic Cable.

Lineman /Techician\$	31.27
Welder/Cable Splicer	31.27
Digging Machine Operator	28.14
Tractor Trailer Driver	26.58
Truck Driver/Groundman	
Mechanic 1st Class	
Flagman	18.76

*Additional 1.00 per. hr. for crew on helicopter job.

**Above 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.

Lineman/Technician\$	31.27
Cable Ssplicer	34.40
Certified Welder	32.83
Digging Machine Operator	28.14
Tractor Trailer Driver	26.58
Mechanic lst Class	25.02
Truck Driver/Groundman	25.02
Flagman	18.76

*Additional \$ 1.00 per hour for crew on helicopter job.

**Above rates applicable on all electrical sub-stations, Fiber Optic Cable

-----Case Number-----040244]

SCHĚNĚČTÁĎY and all other work not defined as "Utility outside electrical work".

See (B, E, Q,) on OVERTIME PAGE. \times Double time for all emergency work designated by the Dept. of Jurisdiction. OVERTIME PAY:

THE FOLLOWING RATES WILL APPLY ON ALL CONTRACTING AGENCY MANDATED SHIFTS OF AT LEAST FIVE (5) DAYS DURATION WORKED BETWEEN THE HOURS LISTED BELOW: NOTE:

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 %

HOLIDAYS:

id: See (5, 6, 8, 13, 25) on HOLIDAY PAGE plus Gov. Election Day. ertime: See (5, 6, 8, 13, 25) on HOLIDAY PAGE plus Gov. Election Day. **SUPPLEMENTS for holidays paid at straight time.** Paid: Overtime:

The following APPRENTICE rates and the following SUPPLEMENTAL benefits apply to all classification categories of CONSTRUCTION, TRANSMISSION and DISTRIBUTION.

APPRENTICES: (1000) hr terms at the following percentage of Journeyman's Wage. Ist. 60%

SUPPLEMENTAL BENEFITS: (per Hour worked including above listed holidays.

\$8.50 plus 7% of wage

6-1249a

```
Electrician Lineman Pole Treater ALBANY COUNTY: Entire County BROOME COUNTY: Entire County CATTARAUGUS COUNTY: Entire County CHAUTAUQUA COUNTY: Entire County CHAUTAUQUA COUNTY: Entire County CHENANGO COUNTY: Entire County CLINTON COUNTY: Entire County COLUMBIA COUNTY: Entire County COLUMBIA COUNTY: Entire County CORTLAND COUNTY: Entire County CORTLAND COUNTY: Entire County DUTCHESS COUNTY: Entire County DUTCHESS COUNTY: Entire County ERIE COUNTY: Entire County FRANKLIN COUNTY: Entire County FRANKLIN COUNTY: Entire County FRANKLIN COUNTY: Entire County GREENE COUNTY: Entire County GREENE COUNTY: Entire County HAMILTON COUNTY: Entire County HAMILTON COUNTY: Entire County HERKIMER COUNTY: Entire County
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ONEIDA COUNTY:
ONONDAGA COUNTY:
ONTARIO COUNTY:
ORANGE COUNTY:
ORLEANS COUNTY:
OSWEGO COUNTY:
OTSEGO COUNTY:
PUTNAM COUNTY:
RENSSELAER COUNTY:
SARATOGA COUNTY:
SCHENECTADY COUNTY:
SCHENECTADY COUNTY:
SCHUYLER COUNTY:
SCHUYLER COUNTY:
SENECA COUNTY:
STEUBEN COUNTY:
STEUBEN COUNTY:
STILAWRENCE COUNTY:
SULLIVAN COUNTY:
TIOGA COUNTY:
TOMPKINS COUNTY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Entire County
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Entire County
Entire County
Entire County
Entire County
Entire County
```

6-1249pole

------Case Number-----

0402441 SCHENECTADY					
LEWIS COUNTY: Entire County LIVINGSTON COUNTY: Entire County MADISON COUNTY: Entire County MONROE COUNTY: Entire County MONTOMERY COUNTY: Entire County	Entire County	WARREN COUNTY: WASHINGTON COUNTY: WAYNE COUNTY: WYOMING COUNTY: YATES COUNTY:		Entire Coun- Entire Coun- Entire Coun- Entire Coun- Entire Coun-	ty ty ty
		7/01/03	7/01/04	7/01/05	
Pole treater lst (Minimum l year exp	 perience)	.\$ 11.98	12.46	12.96	
Pole treater 2nd (Minimum 6 months o	experience)	. 11.35	11.80	12.27	
Pole treater 3rd . (Minimum 3 months a	experience)	. 10.72	11.15	11.60	
Inexperienced treate (Less than 3 months	er ;)	. 10.10	10.50	10.92	

OVERTIME PAY: See (B, H) on OVERTIME PAGE.

HOLIDAYS

Paid: See (5, 6, 8, 10, 15) on HOLIDAY PAGE. Overtime: See (5, 6, 8, 10, 15) on HOLIDAY PAGE.

SUPPLEMENTAL BENEFITS: (per hours worked including the above listed holidays)

\$ 3.55 plus 3% of wage 3.75 plus 3% of wage plus 3% of wage

*NOTE.....ABOVE RATES APPLICABLE THROUGHOUT THE ENTIRE STATE EXCEPT THE FOLLOWING COUNTIES: BRONX, KINGS, NEW YORK COUNTY, QUEENS, RICHMOND, NASSAU, SUFFOLK and WESTCHESTER COUNTIES.

Electrician Lineman Teledata
ALBANY COUNTY: Entire County
BROOME COUNTY: Entire County
CATTARAUGUS COUNTY: Entire County
CAYUGA COUNTY: Entire County
CHEMUNG COUNTY: Entire County
CHEMUNG COUNTY: Entire County
CHENANGO COUNTY: Entire County
CLINTON COUNTY: Entire County
COLUMBIA COUNTY: Entire County
CORTLAND COUNTY: Entire County
DELAWARE COUNTY: Entire County
DUTCHESS COUNTY: Entire County
ERIE COUNTY: Entire County
ERIE COUNTY: Entire County
FRANKLIN COUNTY: Entire County
FRANKLIN COUNTY: Entire County
FRULTON COUNTY: Entire County
GENESEE COUNTY: Entire County
GREENE COUNTY: Entire County ONEIDA COUNTY:
ONONDAGA COUNTY:
ONTARIO COUNTY:
ORANGE COUNTY:
ORLEANS COUNTY:
OTSEGO COUNTY:
PUTNAM COUNTY:
RENSSELAER COUNTY:
ROCKLAND COUNTY:
SARATOGA COUNTY:
SCHENECTADY COUNTY:
SCHOHARIE COUNTY:
SCHOHARIE COUNTY:
SCHOHARIE COUNTY:
SCHOHARIE COUNTY:
SCHUYLER COUNTY:
STEUBEN COUNTY:
STEUBEN COUNTY:
STEUBEN COUNTY:
STEUBEN COUNTY:
TIOGA COUNTY:
TIOGA COUNTY:
TIOGA COUNTY:
TOMPKINS COUNTY:
TOMPKINS COUNTY:
TOMPKINS COUNTY:
TOMPKINS COUNTY:
TITE County
Entire County

Entire County Entire County Entire County

```
Prevailing Rate Schedule
                                                                                                                                                                                                                                                                                                          Department of Labor
    New York State
                                                                       -----Case Number---------
                                                                                                                                                                         0402441
SCHENECTADY
                                                                                                                                                                                                                                                                                                                                                                                           2003
   HERKIMER COUNTY: Entire County ULSTER
JEFFERSON COUNTY: Entire County WARREN
LEWIS COUNTY: Entire County WASHING
LIVINGSTON COUNTY: Entire County WAYNE (
MADISON COUNTY: Entire County WESTCHE
MONROE COUNTY: Entire County WYOMING
MONTGOMERY COUNTY: Entire County YATES (
NIAGARA COUNTY: Entire County
For work outside building property lines***
                                                                                                                                                                                                    ULSTER COUNTY: Entire County
WARREN COUNTY: Entire County
WASHINGTON COUNTY: Entire County
WAYNE COUNTY: Entire County
WESTCHESTER COUNTY: Entire County
WYOMING COUNTY: Entire County
YATES COUNTY: Entire County
    **** EXCLUDES - Teledata work within ten feet of High Voltage transmission lines, for this work please see LINEMAN.
    WAGES: (per hour)
                                                                                                                                                                        7/01/2003
                                                                                                                                                                                                                                                   6/30/2004
    Cable Splicer.....$ 22.29
                                                                                                                                                                                                                                                             23.07
    Installer/Repairman.....
Teledata Lineman....
Technician/Equip oper.....
                                                                                                                                                                         21.17
21.17
21.17
    Groundman..... 11.22
                                                                                                                                                                                                                                                             11.61
   OVERTIME PAY: See (B,Q) on OVERTIME PAGE
   HOLIDAYS:
                                                     NONE
   Paid:
   Overtime: See (5,6,16) on HOLIDAY PAGE
 SUPPLEMENTAL BENEFITS:

per hour worked ......$ 2.80

plus 3%
                                                                                                                                                                                                                                                               2.80
plus 3%
                                                                                                                                                                                                                                                                 of wage
                                                                                                                                                                                 of wage
                                                                                                                                                                                                                                                                                                                                                      6-1249LT
Electrician Lineman Traffic Signal Lighting
ALBANY COUNTY: Entire County
ALLEGANY COUNTY: Entire County
BROOME COUNTY: Entire County
CATTARAUGUS COUNTY: Entire County
CAYUGA COUNTY: Entire County
CHAUTAUQUA COUNTY: Entire County
CHEMUNG COUNTY: Entire County
CHEMUNG COUNTY: Entire County
CHENANGO COUNTY: Entire County
CHENANGO COUNTY: Entire County
CHENANGO COUNTY: Entire County
CORTLAND COUNTY: Entire County
CONTY: Entire County
CONTY: Entire County
CONTY: Entire County
COUNTY: Entire C
                                                                                                                                                                                                                                                                                                                     Entire County
```

0402441 SCHĚNĚČŤÁDY

2003

LEWIS COUNTY:
LIVINGSTON COUNTY:
MADISON COUNTY:
MONROE COUNTY:
MONTOMERY COUNTY:
NIAGARA COUNTY:
WAGES: (per hour)

Entire County
Entire County
Entire County
Entire County
For the county
T/01/200 WYOMING COUNTY: Entire County YATES COUNTY: Entire County 7/01/2003 Certified Welder.....\$ 29.82 Lineman/Technician...... 28.40 Digging Mach....... 25.56 Tractor trailer driver..... 24.14 Truck Driver/groundman..... 22.72 Mechanic 1st Class..... 22.72

Flagman........................

Above rates applicable on ALL Lighting and Traffic Signal Systems with the installation, testing, operation, maintenance and repair of all traffic control and illumination projects, traffic monitoring systems, road weather information systems and the installation of Fiber Optic Cable.

OVERTIME PAY: See (B, E, Q,) on OVERTIME PAGE. NOTE* Double time for all emergency work designated by the Dept. of Jurisdiction.

NOTE: THE FOLLOWING RATES WILL APPLY ON ALL CONTRACTING AGENCY MANDATED SHIFTS OF AT LEAST FIVE (5) DAYS DURATION WORKED BETWEEN THE HOURS LISTED BELOW:

1ST SHIFT.....8:00 AM TO 4:30 PM 2ND SHIFT.....4:30 PM TO 1:00 AM 3RD SHIFT.....12:30 AM TO 9:00 AM REGULAR RATE REGULAR RATE PLUS 17.3% REGULAR RATE PLUS 31.4%

HOLIDAYS:

Paid: See (5, 6, 8, 13, 25) on HOLIDAY PAGE plus Gov Election Day. Overtime: See (5, 6, 8, 13, 25) on HOLIDAY PAGE plus Gov Election Day. *Supplements paid at STRAIGHT TIME rate for holidays. **Overtime: (5, 6, 8, 13, 25)

The following APPRENTICE Rates and the following SUPPLEMENTAL BENEFITS apply to all classifications.

APPRENTICES: (1000) hour terms at the following percentage of Journey's wage. 1st. 60% 5th. 7th.

SUPPLEMENTAL BENEFITS: per Hour Worked including above listed holidays.

\$ 8.50 plus 6.5% of wage

NOTE: Each employee in a helicopter crew to receive \$ 1.00 above reg pay

6-1249a-LT

Electrician Lineman Tree Trimmer

Page 14 Prevailing Rate Schedule Department of Labor New York State 0402441 SCHENECTADY 2003 ALBANY COUNTY: Entire County ONEIDA COUNTY: Entire County ALLEGANY COUNTY: Entire County ONONDAGA COUNTY: Entire County BROOME COUNTY: Entire County ONTARIO COUNTY: Entire County CATTARAUGUS COUNTY: Entire County ORLEANS COUNTY: Entire County CATTARAUGUS COUNTY: Entire County ORLEANS COUNTY: Entire County CHAUTAUQUA COUNTY: Entire County OSMEGO COUNTY: Entire County CHAUTAUQUA COUNTY: Entire County OSMEGO COUNTY: Entire County CHEMUNG COUNTY: Entire County SEGO COUNTY: Entire County CHEMUNG COUNTY: Entire County SEGO COUNTY: Entire County CHEMUNG COUNTY: Entire County SARATOGA COUNTY: Entire County COLUMBIA COUNTY: Entire County SCHENECTADY COUNTY: Entire County COLUMBIA COUNTY: Entire County SCHONARIE COUNTY: Entire County CONTLAND COUNTY: Entire County SCHONARIE COUNTY: Entire County DUTCHESS COUNTY: Entire County SENECA COUNTY: Entire County DUTCHESS COUNTY: Entire County STEUBEN COUNTY: Entire County ENTIRE COUNTY: Entire County STEUBEN COUNTY: Entire County ENTIRE COUNTY: Entire County STEUBEN COUNTY: Entire County FILION COUNTY: Entire County TIOGA COUNTY: Entire County FILION COUNTY: Entire County UNSTER COUNTY: Entire County HAMILION COUNTY: Entire Cou PUTNAM COUNTY: Entire county except Brewster Township. WAGES: (per hour) 1/01/03 7/01/03 1/01/04 1/01/05

Tree Trimmer: 17.85 15.82 15.82 13.44 11.13 18.92 16.77 16.77 14.25 17.47 17.47 14.84 12.28 11.80

OVERTIME PAY: See (B, E, Q) on OVERTIME PAGE.

HOLIDAYS: Paid: See (5, 6, 8, 10, 15, 16) on HOLIDAY PAGE. Overtime: See (5, 6, 8, 10, 15, 16) on HOLIDAY PAGE. *Supplements paid at STRAIGHT TIME rate for holidays. **Overtime: (5, 6, 8, 10, 15, 16)

SUPPLEMENTAL BENEFITS: (per hour worked including above listed holidays.

\$ 3.85 plus 3% of wage \$ 3.95 plus 3% of wage \$ 4.05 plus 3% of wage \$ 4.15 plus 3% wage

6-1249TT

Elevator Constructor & Maintenance

```
Prevailing Rate Schedule
                                                                                                                       Department of Labor
New York State
                    0402441
SCHENECTADY
                                                                                                                                                     2003
GREENE COUNTY: All except the Townships of Catskill and Hunter. COLUMBIA COUNTY: Only the Townships of Stuyvesant, Kinderhook, Chatham, Canaan, Stockport, Ghent, Austerlitz, Greenport, Claverack, Hillsdale and
Canaan, Stockport, G
New Lebanon.
ALBANY COUNTY:
ESSEX COUNTY:
FULTON COUNTY:
HERKIMER COUNTY:
ONEIDA COUNTY:
SCHENECTADY COUNTY:
SCHENECTADY COUNTY:
WARREN COUNTY:
WASHINGTON COUNTY:
WAGES: (per hour)
                                         Entire County
                                                                             CLINTON COUNTY: Entire County
FRANKLIN COUNTY: Entire County
HAMILTON COUNTY: Entire County
MONTGOMERY COUNTY: Entire County
OTSEGO COUNTY: Entire County
SARATOGA COUNTY: Entire County
SCHOHARIE COUNTY: Entire County
                                            7/1/2003 1/1/2004
Mechanic...... $ 27.645
Helper..... 19.352
                                                                 29.24
OVERTIME PAY:..... See ( D, 0 ) on OVERTIME PAGE.
HOLIDAYS:
APPRENTICES RATES:
(1st 6mo) (2nd 6mo) (2nd yr)
50% 55% 65%
                                                               (3rd yr)
70%
                                                                                   (4th yr)
80%
SUPPLEMENTAL BENEFITS: (per hour worked)
                                               9.355
                                                                 10.77
+ 8%
Journeyman.....$
                                               of wage of wage
Helper &
                                               9.355
                                                                 10.77
Apprentices.....$
                                               of wage of wage
                                                                                                                                         1-35
                                                                        CLINTON COUNTY: Entire County
ESSEX COUNTY: Entire County
FULTON COUNTY: Entire County
HAMILTON COUNTY: Entire County
RENSSELAER COUNTY: Entire County
SCHENECTADY COUNTY: Entire County
                                                                         WARREN COUNTY:
                                                                                                                 Entire County
```

Glazier
ALBANY COUNTY:
COLUMBIA COUNTY:
FRANKLIN COUNTY:
GREENE COUNTY:
MONTGOMERY COUNTY:
SARATOGA COUNTY:
SCHOHARIE COUNTY:
WASHINGTON COUNTY:
WAGES: (per hour)

T/01/2003 7/01/2003 7/01/2004

\$ 20.57 Glazier.... 21.27

OVERTIME PAY:..... See (B,E,Q) ON OVERTIME PAGE.

HOLIDAYS:

Paid:..... See (1) on HOLIDAY PAGE.
Overtime:..... See (5,6) on HOLIDAY PAGE

APPRENTICES: (1/2) year (900 hr.) terms at the following percentage

Laborer - Building FULTON COUNTY: Only the Townships of Bleeker, Mayfield, Northampton, Johnstown, Broadalbin and Perth.
MONTGOMERY COUNTY: Only the Townships of Mohawk, Glen, Charleston, Amsterdam and Florida.

1-12

0402441

SCHENECTADY SARATOGA COUNTY: Only the Townships of Day, Hadley, Edinburg, Corinth, Moreau, South Glens Falls, Providence, Greenfield, Wilton, Galaway, Northumberland, Milton, Saratoga Springs, Charlton, Ballston, Malta and Clifton Park.
SCHENECTADY COUNTY: Entire County SCHOHARIE COUNTY: Entire County WAGES: (per hour) 10/1/04 7/01/2003 10/1/03 Addit. 1.50 Addit. 1.55 Addit. 1.60

OVERTIME PAY:..... See (B,E,E2,Q,) on OVERTIME PAGE.

HOLIDAYS:

APPRENTICES: 1000 Hours terms at the following percentage of Journeyman's

wage. 1st. 50% 3rd. 80% 65%

SUPPLEMENTAL BENEFITS: (per hour worked)

Journeyman & Apprentices......

1-157

Laborer - Heavy Highway
FULTON COUNTY: Only the Townships of Bleeker, Mayfield, Northampton, Johnstown,
Broadalbin and Perth.
MONTGOMERY COUNTY: Only the Townships of Mohawk, Glen, Charleston, Amsterdam and Florida.

SARATOGA COUNTY: Only the Townships of Monawk, Gien, Charleston, Amsterdam and Florida.

SARATOGA COUNTY: Only the Townships of Day, Hadley, Edinburg, Corinth, Moreau, South Glens Falls, Providence, Greenfield, Wilton, Galaway, Northumberland, Milton, Saratoga Springs, Charlton, Ballston, Malta and Clifton Park SCHENECTADY COUNTY: Entire County SCHOHARIE COUNTY: Entire County GROUP # A: Basic, Drill Helper, Flagman, Outboard and Hand Boats.

GROUP # B:
Bull Float, Chain Saw, Concrete Aggregate Bin, Concrete Bootmen,
Gin Buggy, Hand or Machine Vibrator, Jack Hammer, Mason Tender, Mortar
Mixer, Pavement Breaker, Handlers of all SteelMash, Small Generators for
Laborers, Tools Installation of Bridge Drainage Pipe, Pipe Layers, Vibrator
Type Rollers, Tamper, Drill Doctor, Tail or Screw Operator on Asphalt Paver,
Water Pump Operators(1-1/2" and Single Diaphragm), Nozzle (Asphalt, Gunite,
Seeding, and Sand Blasting), Laborers on Chain Link Fence clearing, and
concrete footings, Rock Splitter and Power Unit, Pusher Type Concrete Saw and
all other Gas, Electric, Oil and Air Tool Operators, Wrecking Laborer.

Äll Rock or Drilling Machine Operators (Except Quarry Master and Similar Type), Acetylene Torch Operators, Asphalt Raker and Powderman.

Blasters, Form Setters, Stone or Granite Curb Setters.

WAGES: (per hour)

7/01/2003

------Case Number-----0402441 SCHENECTADY Heavy & Highway Laborer:
Group # A............
Group # B.............
Group # C.................
Group # D.................. \$20.79 20.99 21.19 21.39 Additional 2.00 per hr. over base rate for work on a State or Federally designated waste site & where relevant State or Federal regulations require employees to use or wear forms of personal protection. Workers on a single irregular work shift starting anytime from 5:00 pm to 1:00 am due to governmental mandated night work shall be paid an additional \$1.50 per hour. Effective on jobs bid after January 1, 2001. OVERTIME PAY:..... See (B,E,Q,) on OVERTIME PAGE. **HOLIDAYS:** Paid:..... See (5, 6) on HOLIDAY PAGE.
Overtime:.... See (5, 6) on HOLIDAY PAGE. APPRENTICES: 1000 HOURS TERMS AT THE FOLLOWING PERCENTAGE OF JOURNEYMAN'S WAGE. 1ST. 50% 4TH 90% 65% SUPPLEMENTAL BENEFITS: (per hour worked) Journeyman & Apprentices. 8.40 1-157h/h Mason - Building
ALBANY COUNTY: Entire County
FULTON COUNTY: Entire County
HAMILTON COUNTY: Entire County
RENSSELAER COUNTY: Entire County
SCHENECTADY COUNTY: Entire County
WASHINGTON COUNTY: Entire County
WASHINGTON COUNTY: Entire County COLUMBIA COUNTY:
GREENE COUNTY:
MONTGOMERY COUNTY:
SARATOGA COUNTY:
SCHOHARIE COUNTY: Entire County Entire County Entire County Entire County Entire County WAGES: (per hour) 5/01/04 ADDIT. 1.30 7/01/2003 \$ 23.55 23.55 23.55* 23.55 23.55 Stone Mason... *Fireproofing of Structural only. OVERTIME PAY:..... See (B, E, E2, Q,) on OVERTIME PAGE. HOLIDAY: APPRENTICES: MASONS (750) hour terms at the following percentage of Journey's wage. 1st. 2nd. 55% 60% 6th. lst. 55% SUPPLEMENTAL BENEFITS: (per hour worked) \$ 10.97 1-2b.1 Mason - Heavy Highway ONONDAGA COUNTY: All classifications except Cement Masons.

```
Department of Labor
                                            -----Case Number-----
                                                                               0402441
SCHENECTADY
                                                                                                                                                                                   2003
ALBANY COUNTY: Entire County
CLINTON COUNTY: Entire County
FULTON COUNTY: Entire County
HAMILTON COUNTY: Entire County
JEFFERSON COUNTY: Entire County
MADISON COUNTY: Entire County
ONEIDA COUNTY: Entire County
RENSSELAER COUNTY: Entire County
SCHENECTADY COUNTY: Entire County
ST. LAWRENCE COUNTY: Entire County
WASHINGTON COUNTY: Entire County
WASHINGTON COUNTY: Entire County
WAGES: (per hour)
                                                                                          CAYUGA COUNTY:
COLUMBIA COUNTY:
FRANKLIN COUNTY:
GREENE COUNTY:
HERKIMER COUNTY:
LEWIS COUNTY:
MONTGOMERY COUNTY:
OSWEGO COUNTY:
SARATOGA COUNTY:
SCHOHARIE COUNTY:
                                                                                                                                       Entire County
Entire County
Entire County
Entire County
Entire County
                                                                                                                                        Entire County
Entire County
                                                                                                                                        Entire County
Entire County
                                                                                           WARREN COUNTY:
                                                                                                                                        Entire County
WAGES: (per hour)
                                                                 7/01/2003
                                                                                                  7/01/2004
Heavy/Highway:
Mason/Bricklayer..... $ 23.01
                                                                                                       Addit.
1.75
 OVERTIME PAY:..... See ( B, E, Q, ) on OVERTIME PAGE.
HOLIDAY:
Paid:..... See ( 5,20 ) on HOLIDAY PAGE.
Overtime:..... See ( 5,6, ) on HOLIDAY PAGE.
APPRENTICE wage( 750 HR. TERMS at % Journeyman's wage. lst. 2nd. 3rd. 4th. 5th. 6th. 7th. 55% 60% 65% 70% 75% 80% 85%
                                                                                                                                      90%
SUPPLEMENTAL BENEFITS: (per hour worked)
Journeyman & Apprentices:..... $ 10.06
                                                                                                                                                         1-2hh.1
Mason - Tile Setters
ALBANY COUNTY: Entire County
COLUMBIA COUNTY: Entire County
FRANKLIN COUNTY: Entire County
GREENE COUNTY: Entire County
MONTGOMERY COUNTY: Entire County
SARATOGA COUNTY: Entire County
SCHOHARIE COUNTY: Entire County
WASHINGTON COUNTY: Entire County
WAGES: (per bour)
                                                                                            CLINTON COUNTY: Entire County
ESSEX COUNTY: Entire County
FULTON COUNTY: Entire County
HAMILTON COUNTY: Entire County
RENSSELAER COUNTY: Entire County
SCHENECTADY COUNTY: Entire County
WARREN COUNTY: Entire County
 WAGES: (per hour)
                                                                                                        6/01/04
ADDIT.
                                                                        7/01/2003
Building:
Marble, Tile, Slate
& Terrazzo Setter.....
" Finisher.....
                                                                                                              1.20
OVERTIME PAY:..... See ( B, E, Q ) on OVERTIME PAGE
HOLIDAY:
APPRENTICES:SETTER (Hour) terms at the following percentage of Journeyman's wage. 1st. 2nd. 3rd. (500 hrs.) (1000 hrs.) (500 hrs.) (500 hrs.) (90%
APPRENTICES: Finisher (Hour) terms at the following percentage of Journeyman's wage.
1st. 2nd. 3rd.
(500 hrs.) (1000 hrs.) (500 hrs.)
```

2003

70% 80% 90%

SUPPLEMENTAL BENEFITS: (per hour worked)

Setter:.... Finisher:.... 8.57

1-2T.1

Operating Engineer - Building
DUTCHESS COUNTY: North of a West/East line through Dutchess County
starting at the Northern Boundary of the City of Poughkeepsie.
HERKIMER COUNTY: East of a North/South line through the Railroad
Station at Little Falls.
ALBANY COUNTY: Entire County CLINTON COUNTY: Entire Cou
COLUMBIA COUNTY: Entire County ESSEX COUNTY: Entire Cou
FRANKLIN COUNTY: Entire County FULTON COUNTY: Entire Cou
GREENE COUNTY: Entire County HAMILTON COUNTY: Entire Cou
MONTGOMERY COUNTY: Entire County OTSEGO COUNTY: Entire Cou
RENSSELAER COUNTY: Entire County SARATOGA COUNTY: Entire Cou
SCHENECTADY COUNTY: Entire County SCHOHARIE COUNTY: Entire Cou
WARREN COUNTY: Entire County WASHINGTON COUNTY: Entire Cou
POWER EQUIPMENT OPERATOR - Building Entire County

CLASS Al: Crane, Hydraulic Cranes, Tower Crane, Locomotive Crane, Piledriver, Cableway, Derricks, Whirlies, Dragline, Boom truck over 5 ton.

Maintenance Engineer, Self-Contained Drill, Hydraulic Rock Drill, Shovel, Backhoe(except tractor mtd. rubber tired), Gradalls, Power road grader, all CMI equipment, Front-end rubber tire loader, Tractor-mounted drill (quarry master), Mucking machine, Concrete central mix plant, Concrete pump, Belcrete system, Automated asphalt concrete plant, and Tractor road paver.

CLASS B:
Backhoe(tractor mtd rubber tired), Bulldozer, Push cat, Tractor,
Traxcavator, Scraper, LeTourneau grader, Form fine Grader, Road Roller,
Blacktop Roller, Blacktop Spreader, Power Brooms, Sweepers, Trenching
Machine, Barber Greene loader, Side booms, Hydro hammer, Concrete spreader,
Concrete finishing machine, One Drum Hoist, Power Hoisting(single drum),
hoist-two drum or more, 3 Drum Eng., power hoisting (2 drum & over) 2 & 3
Drum & Swing Engine, Hod Hoist, A-L Frame Winchs, Core & Well Drillers(one
drum), Post Hole Digger, CHB Vibro Tamp or Similar Mach. Batch Pin & Plant
Oper., Dinky Locom., Skid Steer loader, Track excav. 5/8 cu yd or under.

Forklift, High Lift, Lull, Oiler, Fireman and Heavy-duty Greaser, Boilers, Steam Generators, Pump, Vibrator, Mortar Mixer, Air Compressor, Dust Collector, Welding Machine, Well Point, Mechanical Heater, Generators, Temporary Light Plants, Concrete Pumps, Electric Submersible Pump 4" and over, Murphy type diesel generator, Conveyor, Elevators, Concrete Mixer and Belcrete power pack (Belcrete system), Seeding & Mulching Machines, Pumps, All hands off Machinery.

* In the event that equipment listed above is operated by robotic control, the classification covering the operation will be the same as if manually operated.

WAGES: (per hour)	7 (1 (2007	1 /1 /0/	7 (1 (0)	1/1/05	7 (1 (05
Class # Al	7/1/2003 \$26.70 25.09 24.48 23.17	1/1/04 27.19 25.97 25.26 23.53	27.88 27.05 26.24 24.09	1/1/05 28.92 28.48 27.57 25.00	30.07 29.63 28.72 26.15

2003

1-106Ь

Operating Engineer - Heavy Highway
DUTCHESS COUNTY: North of a West/East line through Dutchess County
starting at the Northern Boundary of the City of Poughkeepsie.
HERKIMER COUNTY: East of a North/South line through the Railroad
Station at Little Falls.
ALBANY COUNTY: Entire County BROOME COUNTY: Entire County
CHENANGO COUNTY: Entire County CLINTON COUNTY: Entire County
COLUMBIA COUNTY: Entire County ESSEX COUNTY: Entire County
FRANKLIN COUNTY: Entire County FULTON COUNTY: Entire County
GREENE COUNTY: Entire County HAMILTON COUNTY: Entire County
MONTGOMERY COUNTY: Entire County OTSEGO COUNTY: Entire County
SCHENECTADY COUNTY: Entire County SARATOGA COUNTY: Entire County
SCHENECTADY COUNTY: Entire County SCHOHARIE COUNTY: Entire County
TIOGA COUNTY: Entire County WARREN COUNTY: Entire County
WASHINGTON COUNTY: Entire County
MASTER MECHANIC:

CLASS 1A: Crane, Cherry Picker(over 5 ton capacity, Derricks (steel erection) Dragline, Overhead Crane (gantry or straddle), Piledriver, Boom Truck (Over 5 tons).

CLASS A:
Automated Concrete Spreader(CMI Type), Automatic Fine Grader,
Backhoe(except tractor-mounted,rubber tired), Backhoe Excavator Full Swing
(CAT 212 or similar), Belt Placer(CMI Type), Blacktop Plant (automated),
Cableway, Caisson Auger, Central Mix Concrete Plant (automated), Concrete
Pump(8" or over), Dredge, Dual Drum Paver, Excavator (all purpose-hydraulic
Gradall or Similar), Profiler (over 105 H.P.), Front End Loader (4c.y.& over),
Head Tower (Sauerman or equal), Hoist (two or three Drum), Mine Hoist,
Holland Loader, Mucking Machine or Mole, Power Grader, Quad 9, Quarry Master
(or equivalent), Scraper, Shovel, Side Boom, Slip Form Paver (If second man is
needed, he shall be an Oiler), Tractor Drawn Belt Type Loader, Truck or
Trailer Mounted Chipper(self-feeding), Tug & Operator (manned, rented
equipment excluded) & Tunnel Shovel, Maintenance Engineer, Concrete Curb
Machine, Self-Propelled Slip Form, Boom Truck 5 tons and under, Directional
Drilling Machine, Back Filling Machine, Side Boom, Pavement Breaker (sp)
Wertgen; PB-4 & similar type.

2003

CLASS B:
Backhoe (Tractor-Mounted, Rubber Tired), Bituminous Spreader & Mixer,
Blacktop Plant (non-automated), Blast or Rotary Drill (Truck or Tractor
Mounted), Boring Machine, Cage Hoist, Central Mix Plant(Non Automated), All
Concrete Batching Plants, Cherry Picker (5 ton capacity & under), Compressors
(4 or less exceeding 2000 cfm combined capacity), Concrete Paver over 16S,
Concrete Pump(Under 8"), Bituminous Recycling machine Crawler Drill Self
Contained, Crusher, Diesel Power Unit, Drill Rigs (Tractor Mounted), Front End
Loader(under 4 c.y.), Hi-Pressure Boiler (15 lbs.& over), Hoist(One Drum),
Kolman Plant Loader & similar type loaders(if employer requires another man,
he shall be Oiler), L.C.M.Work Boat Operator, Locomotive,
Greaseman/Lubrication Eng, Welder, Mixer(for stabilized base-self propelled),
Monorail Machine, Plant Engineer, Profiler (105 H.P.or over) Pump Crete,
Ready Mix Concrete Plant, Refrigeration Equipment (for soil stabilization),
Road Widener, Roller(all above sub-grade), Sea Mule, Tractor with Dozer and/or
Pusher, Trencher, Tugger Hoist, Winch and Winch Cat, Hydro-Axe, Pug Mill,
Skidder, Self-contained Ride-on Rock Drill, excluding Air-Track type drill.

CLASS C:
A Frame(Winch Hoist on)Truck, Ballast Regulator(ride on) Bituminous
Heater Self-Propelled, Concrete Pavement Spreaders and Finishers, Conveyor,
Drill (core), Drill (well), Farm Tractor with Accessories, Fine Grade Machine,
Fork Lift, Grout Pump, Gunite Machine, Hammers(hydraulic-self propelled);
Hydra-Spiker(ride-on); Hydro-Blaster(water), Power Sweeper, Post Hole Digger &
Post Driver, Roller(grade & fill), Scarifier(ride-on), Span Saw(ride-on)
Tamper(ride-on), All ride-on Tie Extractors, Tie Handlers, Tie Spacers, Tie
Inserters & Track Liners, Tractor(with towed access.), Vibratory Compactor,
Vibro Tamp, Well Point, Tire repair, Skid Steer Bobcat or similar loader,
Aggregate Plant, Boiler (used with production), Cement and bin Operator,
Compressors, Dust Collectors, Generators, Pumps, Welding Machines, Light
Plants, Heaters Concrete Paver or Mixer (165 & under), Concrete Saw (self
propelled), Form Tamper, Fireman, Hydralic Pump (jacking system) Mulching
Machine, Oiler, Parapet concrete or pavement grinder, Power Broom (towed),
Power Heaterman, Revinius Widener, Shell Winder, Steam Cleaner, Tractor,
Directional Drilling Machine Locator.

st In the event that equipment listed above is operated by robotic control, the classification covering the operation will be the same as if manually

WAGES: (per hour)

7/01/2003 \$ 29.34 28.16 27.73 26.82 24.25 Master Mechanic..... Class 1A..... Class A..... Class B.....

ALL EMPLOYEES WHO WORK A SINGLE IRREGULAR SHIFT STARTING FROM 5:00 PM TO 1:00 AM THAT IS GOVERNMENTALLY MANDATED NIGHT WORK, SHALL BE PAID AN ADDITIONAL \$1.75 PER HOUR.

\$0.50 per hr additional for Crane with Boom length & gib 150ft. and over. Additional \$2.50 per hr. for hazardous or toxic waste work.

OVERTIME PAY:..... See (B,E,Q,) on OVERTIME PAGE.

HOLIDAYS

Paid:..... See (5,6) on HOLIDAY PAGE. Overtime:.... See (5,6) on HOLIDAY PAGE.

APPRENTICES: (1000) hours terms at the following percentage of Journeyman's 2nd. 3rd. 4th.

New York S	tate	Case	Number	Department of Labor
		0400 SCHENE	2441 CTADY	2003
55% of Class C	65% of Class C	70% of Class B	75% of Class A	
SUPPLEMENT	AL BENEFITS: (;	per hour paid)		
Journeyman Apprentice	& s:	\$ 13.40		

Operator\$	28.07
CLASS B: Operator II\$ EngineerBoat Master	23.04 24.72 23.24
CLASS C: Maintenance Eng. \$ Mate	23.59 21.99 21.99 23.22 22.15 21.99
CLASS D: Oiler\$ Scowman\$	18.59 17.88

New York State	Prevailing Rate Schedule	Page 24 Department of Labor
	Case Number	
	0402441 SCHENECTADY	2003
Deckhand	18.13	
HYDRAULIC DREDGES CLASS A: Leverman	7-01-03 \$ 27.56	
CLASS B: Leverman II Engineer Derrick Operator. Chief Mate Chief Welder Electrician Fill Placer Asst.Fill Placer.		
CLASS C: Maintenance Eng Mate Drag Barge Operator Welder Dredge Spider Barge Operat Boat Capt Chief of Party	c	
CLASS D: OilerShoremanRodmanDeckhandTug Deckhand		
OVERTIME: See (B, F,	R) on OVERTIME PAGE.	
HOLIDAY: Paid: See (5, 6, 0vertime: See (5, 6,	8, 15, 26) on HOLIDAY PAGE. 8, 15, 26) on OVERTIME PAGE.	
SUPPLEMENTAL BENEFITS:	: (per hour worked)	
"The following SUPPLE	EMENTAL BENEFITS apply to ALL ca	ategories"
	7-01-03	
	\$ 6.45 plus 7% of wage	
(overtime hours add	of wage d)\$ 1.25	
	\$ 5.85 plus 7% of wage d)\$ 0.95	
All Class D	\$ 5.25 plus 7% of wage	

Department of Labor

0402441 SCHENECTADY

2003

(overtime hours add)\$ 0.65

4-25a

Operating Engineer - Survey Crew - Building DUTCHESS COUNTY: Northern part of Dutchess county (to the Northern Boundary Line of the City of Poughkeepsie), east of a North/South line through the railroad station at Little Falls.

```
ALBANY COUNTY:
ALLEGANY COUNTY:
BROOME COUNTY:
CATTARAUGUS COUNTY:
CHAUTAUQUA COUNTY:
CHEMUNG COUNTY:
CHENANGO COUNTY:
CLINTON COUNTY:
COLUMBIA COUNTY:
ERIE COUNTY:
FRANKLIN COUNTY:
FRANKLIN COUNTY:
FRANKLIN COUNTY:
GENESEE COUNTY:
GENESEE COUNTY:
HAMILTON COUNTY:
HAMILTON COUNTY:
HAMILTON COUNTY:
HEKIMER COUNTY:
LIVINGSTON COUNTY:
MONTGOMERY COUNTY:
NIAGARA COUNTY:
                                                                                                                                                                                                                       Entire County
                                                                                                                                                                                                                                                                                                                                                                                                ONTARIO COUNTY:
ORLEANS COUNTY:
OTSEGO COUNTY:
RENSSELAER COUNTY:
SARATOGA COUNTY:
SCHENECTADY COUNTY:
STEUBEN COUNTY:
TIOGA COUNTY:
TIOGA COUNTY:
WARREN COUNTY:
WASHINGTON COUNTY:
WASHINGTON COUNTY:
WAYNE COUNTY:
WAYNE COUNTY:
WYOMING COUNTY:
WYOMING COUNTY:
WYOMING COUNTY:
WTITE County
Entire County
Entire County
Entire County
                                                                                                                                                                                                                                                                                                                                                                                                  MASHINGTON COUNTY:
WASHINGTON COUNTY:
WAYNE COUNTY:
WYOMING COUNTY:
YATES COUNTY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Entire County
Entire County
                                                                                                                                                                                                                         Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
```

SURVEY CLASSIFICATIONS: Party Chief- One who directs a survey party. Instrumentman- One who runs the instrument and assists the Party Chief. Rodman- One who holds the rods and in general, assists the survey party.

WAGES: (per hour) 7/01/2003 6/01/2004 6/01/2005

Survey Rates-Building: Party Chief......

\$25.00 22.50 \$26.50 24.00 \$28.00 25.50 Instrument/Rodperson....

Additional \$3.00 per hour for work in a tunnel. An additional 2.50 per hour for work in hazardous waste area.

OVERTIME PAY: See (B, E, Q) on OVERTIME PAGE

HOLIDAYS:

See (5, 6) on HOLIDAY PAGE See (5, 6) on HOLIDAY PAGE

APPRENTICES: (1000) hour terms at the following wage rates.

	lst	2nd	3rd
6/01/2003	13.50	15.75	18.00
6/01/2004	14.40	16.80	19.20
6/01/2005	15.30	17.85	20.40

SUPPLEMENTAL BENEFITS: (per hour worked)

Prevailing Rate Schedule Department of Labor New York State 0402441 SCHENECTADY 2003 Journeyman and all Apprentices..... \$12.60 \$13.10 \$13.60 Operating Engineer - Survey Crew - Consulting Engineer DUTCHESS COUNTY: from the Northern boundary line of the City of Poughkeepsie North. Poughkeepsie North.

ALBANY COUNTY:
ALLEGANY COUNTY:
BROOME COUNTY:
CATTARAUGUS COUNTY:
CAYUGA COUNTY:
CHAUTAUQUA COUNTY:
CHEMUNG COUNTY:
CHEMUNG COUNTY:
CLINTON COUNTY:
COLUMBIA COUNTY:
ERIE COUNTY:
ERSEX COUNTY:
FRANKLIN COUNTY:
FRANKLIN COUNTY:
GENESEE COUNTY:
GENESEE COUNTY:
HAMILTON COUNTY:
HERKIMER COUNTY:
HERKIMER COUNTY:
LEWIS COUNTY:
LEWIS COUNTY:
MADISON COUNTY:
MONTGOMERY COUNTY: NIAGARA COUNTY:
ONEIDA COUNTY:
ONONDAGA COUNTY:
ONTARIO COUNTY:
ORLEANS COUNTY:
OSWEGO COUNTY:
OTSEGO COUNTY:
SENSSELAER COUNTY:
SARATOGA COUNTY:
SCHUNTY:
SCHUNTY:
SCHUNTY:
SCHUYLER COUNTY:
STEUBEN COUNTY:
STILAWRENCE COUNTY:
TIOMPKINS COUNTY:
WARREN COUNTY:
WASHINGTON COUNTY:
WAYNE COUNTY:
YATES COUNTY: Entire County Entire County Entire County Entire County Entire County Entire County Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County Feasibility and preliminary design surveying, line and grade surveying for inspection or supervision of construction when performed under a consulting ENGINEER AGREEMENT SURVEY CLASSIFICATIONS: Party Chief- One who directs a survey party. Instrumentman- One who runs the instrument and assists the Party Chief. Rodman- One who holds the rods and in general, assists the survey party. 7/01/2003 6/01/04 6/01/05 WAGES: (per hour) Survey Rates: Party Chief...... Instrument/Rodperson..... \$25.00 22.50 \$28.00 25.50 \$26.50 Additional 3.00 per hr. for work in a Tunnel. Additional 2.50 per hr. for EPA or DEC certified toxic or hazardous waste OVERTIME PAY: See (B, E, Q) on OVERTIME PAGE **HOLIDAY:**

See (5, 6) on HOLIDAY PAGE See (5, 6) on HOLIDAY PAGE Paid: Overtime:

SUPPLEMENTAL BENEFITS: (per hour worked)

\$12.60 13.10 13.60 -----Case Number----0402441
SCHENECTADY

2003

6-545 DCE

```
Operating Engineer - Survey Crew - Heavy Highway
DUTCHESS COUNTY: the northern portion of the county from the northern
boundary line of the City of Poughkeepsie north to the Dutchess County line.

ALBANY COUNTY:
BROOME COUNTY: Entire County ONEIDA COUNTY: Entire County
BROOME COUNTY: Entire County ONONDAGA COUNTY: Entire County
CATTARAUGUS COUNTY: Entire County ONTARIO COUNTY: Entire County
CATUGA COUNTY: Entire County ONTARIO COUNTY: Entire County
CHAUTAUQUA: Entire County ONTARIO COUNTY: Entire County
CHEMUNG COUNTY: Entire County ONTARIO COUNTY: Entire County
CHEMUNG COUNTY: Entire County ONTARIO COUNTY: Entire County
CLINTON COUNTY: Entire County SARATOGA COUNTY: Entire County
COLUMBIA COUNTY: Entire County SCHENECTADY COUNTY: Entire County
CORTLAND COUNTY: Entire County SCHENECTADY COUNTY: Entire County
ENTIRE COUNTY: Entire County SCHUYLER COUNTY: Entire County
ENTIRE COUNTY: Entire County SCHUYLER COUNTY: Entire County
ENTIRE COUNTY: Entire County STEUBEN COUNTY: Entire County
FRANKLIN COUNTY: Entire County STEUBEN COUNTY: Entire County
FRANKLIN COUNTY: Entire County STEUBEN COUNTY: Entire County
FRANKLIN COUNTY: Entire County ST.LAMRENCE COUNTY: Entire County
FRANKLIN COUNTY: Entire County ST.LAMRENCE COUNTY: Entire County
HAMILTON COUNTY: Entire County HARRENCE COUNTY: Entire County
HAMILTON COUNTY: Entire County HARRENCE COUNTY: Entire County
HAMILTON COUNTY: Entire County HARREN COUNTY: Entire County
HERKIMER COUNTY: Entire County HARNEN COUNTY: Entire County
HERKIMER COUNTY: Entire County HARNEN COUNTY: Entire County
HARNIGTON COUNTY: Entire County HARNE COUNTY: Entire County
HARNIGTON COUNTY: Entire County
MADISON COUNTY: Entire County
MONTGOMERY COUNTY: Entire County
```

SURVEY CLASSIFICATIONS: Party Chief- One who directs a survey party. Instrumentman- One who runs the instrument and assists the Party Chief. Rodman- One who holds the rods and in general, assists the survey party.

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

OVERTIME PAY: See (B, E, Q) on OVERTIME PAGE

HOLIDAY:

Paid: See (5, 6) on HOLIDAY PAGE Overtime: See (5, 6) on HOLIDAY PAGE

APPRENTICES: (1 yr. or 1000 hrs.) terms at the following wage rates.

	lst.	2nd.	3rd.
6/01/2003 6/01/2004 6/01/2005	13.50 14.40	15.75 16.80 17.85	18.00 19.20 20.40

2003

SUPPLEMENTAL BENEFITS: (per hour worked)

Journeyman and all apprentices.....

\$12.60

\$13.10

\$13.60

			6-545 D.H.H.
Operating Engineer -1 ALBANY COUNTY: ALLEGANY COUNTY: BROOME COUNTY: CATTARAUGUS COUNTY: CATTARAUGUS COUNTY: CHAUTAUQUA COUNTY: CHEMUNG COUNTY: CHEMUNG COUNTY: CHENANGO COUNTY: COLINTON COUNTY: CORTLAND COUNTY: DELAWARE COUNTY: DELAWARE COUNTY: ERIE COUNTY: FRANKLIN COUNTY: FRANKLIN COUNTY: GREENE COUNTY: GREENE COUNTY: HAMILTON COUNTY: HERKIMER COUNTY: HERKIMER COUNTY: LEWIS COUNTY: LEWIS COUNTY: MONTOMERY COUNTY: MONTOMERY COUNTY: MONTOMERY COUNTY: NASSAU COUNTY: NASSAU COUNTY: NIAGARA COUNTY:	Entire County	Rehabilitation ONEIDA COUNTY: ONONDAGA COUNTY: ONTARIO COUNTY: ORANGE COUNTY: ORLEANS COUNTY: OTSEGO COUNTY: OTSEGO COUNTY: PUTNAM COUNTY: RENSSELAER COUNTY: SCHENECTADY COUNTY: SCHENECTADY COUNTY: SCHENECTADY COUNTY: SCHUYLER COUNTY: SCHUYLER COUNTY: STEUBEN COUNTY: STEUBEN COUNTY: ST. LAWRENCE COUNTY: SULLIVAN COUNTY: TOMPKINS COUNTY: TOMPKINS COUNTY: WASHINGTON COUNTY: WYOMING COUNTY: YATES COUNTY:	Entire County

On Contracts for Inspection Only: These rates Do Not APPLY.

IMPORTANT NOTE: Rates apply to pipeline repair utilizing a Cured-In-Place Pipe (CIPP) lining system. For all other pipeline repair work, the traditional classification and corresponding wage rates apply.

OPERATING ENGINEER - Trenchless Pipeline Rehabilitation

7-01-03

Lead Tec TV Crew	\$ 35.51
Wet Out Tec	\$ 34.20
Technician	\$ 32.89
Boiler Operator	\$ 33.54
Yard rate	\$ 28.96
Yard Mechanic	\$ 33.54

NOTE: PREMIUM PAY 20% on straight time hours for NEW YORK STATE D.O.T.

-----Case Number-----0402441 SCHENECTADY

2003

and other GOVERNMENTAL MANDATED off-shift work.

OVERTIME PAY: See (D, 0) on OVERTIME PAGE.

HOLIDAYS:
Paid: See (5, 6, 8, 9, 15, 25) on HOLIDAY PAGE.**

** must work day before & day after or receive 2 hrs per intermittent day

Overtime: See (5, 6, 8, 9, 15, 25) on OVERTIME PAGE.**

APPRENTICE (1) year terms at the following rates;

SUPPLEMENTAL BENEFITS: (per hour worked)

23.29 20.60 14.64 Apprentice

4-138

Painter
ALBANY COUNTY:
MONTGOMERY COUNTY:
SARATOGA COUNTY:
SCHOHARIE COUNTY:
Entire County
Entire County FULTON COUNTY: Entire County ENTSCHENECTADY COUNTY: Entire County WAGES: (per hour) 7/01/2003 5/1/04 5/1/05 5/1/06 Brush,Roller,Spray...
Dry Wall Taper....
Paper Hanger...
Epoxy, Scaffold
Sandblasting...
Lead Abatement...
Structural Steel.... \$ 21.24 21.24 21.24 21.24 21.24 22.24 22.24 21,94 ** ** ** ** 11 ** ** 11 ** 22.54 22.54 22.94 22.94

Also includes tanks over 100,000 gallons or over 20 feet high or under 55 feet wall height will be performed at the Structural Steel rate, towers, smoke stacks, flag poles.

39.75

All Elevated Tanks and Shell Tanks over 55 feet wall height will be performed at the Bridge rate.

**Bridge Rate..... 37.27

**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.

OVERTIME PAY:.... See (B,H) on OVERTIME PAGE.

HOLIDAY:

Paid:..... See (1) on HOLIDAY PAGE. Overtime:.... See (5,6) on HOLIDAY PAGE.

APPRENTICES: (900 hour) terms at the following percentage of Journeyman's base wage. 1st. 2nd. 3rd. 4th. 5th. 6th.

New York State	Prevailing	Rate Sche	dule r	D	Department	Page 30 of Labor
		0402441				
	S	CHĚNĚČTÁĎY				2003
45% 50% 60%	70% 80	% 90%				
SUPPLEMENTAL BENEFITS:	(per hour w	orked) 1/01/04	5/1/04	5/1/05	5/1/06	
Journeyman & Apprentices Bridge Painter	\$ 4.10 6.65	4.60	5.10 9.45	5.60	6.10	
					1-466	-Z1
Painter - Highway Stri ALBANY COUNTY: CLINTON COUNTY: COLUMBIA COUNTY: DUTCHESS COUNTY: ESSEX COUNTY: FRANKLIN COUNTY: FULTON COUNTY: FULTON COUNTY: HAMILTON COUNTY: MONTGOMERY COUNTY: NEW YORK CITY: ORANGE COUNTY: PUTNAM COUNTY: RENSSELAER COUNTY: RENSSELAER COUNTY: SARATOGA COUNTY: SARATOGA COUNTY: SCHENECTADY COUNTY: SCHENECTADY COUNTY: SCHOHARIE COUNTY: SUFFOLK COUNTY: SULLIVAN COUNTY: WASHINGTON COUNTY: WASHINGTON COUNTY: WASHINGTON COUNTY: WASHINGTON COUNTY: WAGES: (per hour)	Entire Count	y y y y y y y y y y y y y				
Painter (Striping-High	way):	7/01/03				
Striping-Machine Opera " Assistant Linerman	tor	\$ 22.57 17.99 27.09				
OVERTIME PAY: See (B,	E, P, S) or	OVERTIME	PAGE.			
HOLIDAYS: Paid: See (5, 8, Overtime: See (5, 8,	11; 12; 15; 11; 12; 15;	16, 17, 20 16, 17, 20)) ON HOL	IDAY PAG) ON HO	E. Liday Page	
APPRENTICES: (1) year 1 lst 2nd 2nd \$12.00 \$12.00	3rd	4th <u> </u>	wage. oth 15.00			
SUPPLEMENTAL BENEFITS:	(per hour pa	aid)				
		26% of \$.50	•			

9-8a/28a

(230)

```
Painter - Metal Polisher
ALBANY COUNTY: Entire County
BROOME COUNTY: Entire County
CATTARAUGUS COUNTY: Entire County
CAYUGA COUNTY: Entire County
CHEMUNG COUNTY: Entire County
CHEMUNG COUNTY: Entire County
CHENANGO COUNTY: Entire County
COLINTON COUNTY: Entire County
CORTLAND COUNTY: Entire County
CORTLAND COUNTY: Entire County
DELAWARE COUNTY: Entire County
DUTCHESS COUNTY: Entire County
ERIE COUNTY: Entire County
ESSEX COUNTY: Entire County
FRANKLIN COUNTY: Entire County
FRANKLIN COUNTY: Entire County
GENESEE COUNTY: Entire County
GENESEE COUNTY: Entire County
HAMILTON COUNTY: Entire County
HERKIMER COUNTY: Entire County
HERKIMER COUNTY: Entire County
LEWIS COUNTY: Entire County
HERKIMER COUNTY: Entire County
HERKIMER COUNTY: Entire County
MONTGOMERY COUNTY: Entire County
MONTGOMERY COUNTY: Entire County
NASSAU COUNTY: Entire County
NIAGARA COUNTY: Entire County
NIAGARA COUNTY: Entire County
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ONEIDA COUNTY:
ONONDAGA COUNTY:
Entire County
ONTARIO COUNTY:
Entire County
ORANGE COUNTY:
ORLEANS COUNTY:
OTSEGO COUNTY:
PUTNAM COUNTY:
RENSSELAER COUNTY:
RENSSELAER COUNTY:
ROCKLAND COUNTY:
SCHOHARIE COUNTY:
SCHOHARIE COUNTY:
SCHOHARIE COUNTY:
SCHOHARIE COUNTY:
STEUBEN COUNTY:
STEUBEN COUNTY:
STEUBEN COUNTY:
STEUBEN COUNTY:
STEUBEN COUNTY:
SULLIVAN COUNTY:
SULLIVAN COUNTY:
TIOGA COUNTY:
TIOMPKINS COUNTY:
SULLIVAN COUNTY:
WARREN COUNTY:
WASTEUBER COUNTY:
SULLIVAN COUNTY:
Entire County
ULSTER COUNTY:
WARREN COUNTY:
WARREN COUNTY:
WARREN COUNTY:
WAYNE COUNTY:
WAYNE COUNTY:
WAYNE COUNTY:
WAYNE COUNTY:
WAYNE COUNTY:
WAYNE COUNTY:
WYOMING COUNT
```

WAGES: (per hour)

7/01/03

6/01/04

Metal Polisher.....\$ 21.13

21.98

All workers shall be paid a premium in an amount equal to twenty (20%) per cent of their basic straight time rate of pay for all time worked on hanging scaffolds and on standing scaffolds while working more than 28 feet off the ground, such premium to be paid on top of their straight time or overtime, whichever is applicable.

OVERTIME PAY: See (B, E, Q) on OVERTIME PAGE.

HOLIDAY:

Paid: See (5,6,9,11,15,16,25) on HOLIDAY PAGE. Overtime: See (5,6,9,11,15,16,25) on HOLIDAY PAGE

APPRENTICES: 55% of Basic Polisher Rate (*)

SUPPLEMENTAL BENEFITS: (% of Total Wages)

55% of Wages Journeymen & Apprentice

9 - 8A/28A

Prevailing Rate Schedule New York State Department of Labor -----Case Number-----0402441 SCHENECTADY 2003

Plumber/Steamfitter
HAMILTON COUNTY: Only the Townships of Arietta, Benson, Hope, Indian Lake,
Lake Pleasant, Morehouse and Wells.
SARATOGA COUNTY: Only the Townships of Charlton, Clifton Park, Galway,
Halfmoon, Milton, Stillwater and Waterford.

ALBANY COUNTY: Entire County FULTON COUNTY: Entire County MONTGOMERY COUNTY: Entire County SCHENECTADY COUNTY: Entire County COLUMBIA COUNTY: Entire County GREEN COUNTY: Entire County RENSSELAER COUNTY: Entire County SCHOHARIE COUNTY: Entire County Entire County Entire County Entire County

WAGES: (per hour)

7/01/2003 5/01/04 5/01/05

Plumber, Pipefitter,..... \$ 28.17 Steamfitter 30.17 32.17

OVERTIME PAY:..... See (B *Double time after 8 hrs. on Saturday. See ($B,E\times,Q$,) on OVERTIME PAGE.

HOLIDAY:

APPRENTICES: (l) year terms at the following percentage of Journeyman's

wage. 1st. 40% 2nd. 50% 3rd. 60% 4th.

SUPPLEMENTAL BENEFITS: (per hour worked)

Journeyman & Apprentices.....\$ 9.38 9.38 9.38

1-7

ROOFER
ALBANY COUNTY:
COLUMBIA COUNTY:
FULTON COUNTY:
HAMILTON COUNTY:
RENSSELAER COUNTY:
SCHENECTADY COUNTY:
WASHINGTON COUNTY:
WAGES: (per hour)

Entire County
Entire County
Entire County
Entire County CLINTON COUNTY:
ESSEX COUNTY:
GREENE COUNTY:
MONTGOMERY COUNTY:
SARATOGA COUNTY:
WARREN COUNTY: Entire County Entire County Entire County Entire County Entire County Entire County WAGES: (per hour)

6/01/2005 7/01/2003 6/01/2004

Addit. Roofer/Waterproofer...... Pitch & Asbestos..... \$ 20.00 21.00 Addit.

OVERTIME PAY:..... See (B, E \times Note, Q) on OVERTIME PAGE. \times Note-Saturday may be used as a make up day at straight time if employee misses 8 hrs or more during that week due to inclement weather.

HOLIDAY:

Paid:..... See (1) on HOLIDAY PAGE.

Overtime:.... See (5,6) on HOLIDAY PAGE.

APPRENTICES: (1/2) year terms at the following percentage of Journeyman's

wage. lst. 45% 3rd. 4th. 50% 57% 5th. 6th. 7th. 8th. 64% 72% 80% 87%

1-83

1-669

```
Prevailing Rate Schedule
  New York State
                                                                                                                                                                                                                 Department of Labor
                                                 0402441
                                                                                                                   SCHĚNĚČTÁDY
Sprinkler Fitter
ALBANY COUNTY:
BROOME COUNTY:
CAYUGA COUNTY:
CHEMUNG COUNTY:
CORTLAND COUNTY:
Entire County
CORTLAND COUNTY:
Entire County
ERIE COUNTY:
FRANKLIN COUNTY:
Entire County
FRANKLIN COUNTY:
Entire County
HAMILTON COUNTY:
HAMILTON COUNTY:
HAMILTON COUNTY:
UIVINGSTON COUNTY:
Intire County
MONROE COUNTY:
Entire County
MONROE COUNTY:
Entire County
ONONDAGA COUNTY:
ONONDAGA COUNTY:
SENECA COUNTY:
ST. LAWRENCE COUNTY:
TOMPKINS COUNTY:
WASHINGTON COUNTY:
WASHINGTON COUNTY:
WYOMING COUNTY:
WAGES: (per hour)

7/1/2003
                                                                                                                                                   ALLEGANY COUNTY:
CATTARAUGUS COUNTY:
CHAUTAUQUA COUNTY:
COLUMBIA COUNTY:
DELAWARE COUNTY:
ESSEX COUNTY:
FULTON COUNTY:
HERKIMER COUNTY:
HERKIMER COUNTY:
MADISON COUNTY:
MONTGOMERY COUNTY:
ONEIDA COUNTY:
ONTARIO COUNTY:
ONTARIO COUNTY:
RENSSELAER COUNTY:
SCHUYLER COUNTY:
SCHUYLER COUNTY:
SCHUYLER COUNTY:
TIOGA COUNTY:
SCHUYLER COUNTY:
SCHUYLER COUNTY:
SCHUYLER COUNTY:
STEUBEN COUNTY:
HARREN COUNTY:
WARREN COUNTY:
HAYNE COUNTY:
YATES COUNTY:
                                                                                                                                                                                                                               Entire County
Entire County
Entire County
                                                                                                                                                                                                                             Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
Entire County
                                                                                                                                                                                                                              Entire County
                                                                                              7/1/2003
                                                                                                                                    4/1/2004
 Sprinkler Fitter.....
                                                                                              $ 25.15
                                                                                                                                           Addit.
 OVERTIME PAY:..... See ( B,E,Q,) on OVERTIME PAGE.
 HOLIDAY:
 APPRENTICES: ( 1/2 ) year terms at the following percentage of Journeyman's
 wage.
                                                               4th.
                                                                                                                             7th.
                      2nd.
50%
                                          3rd.
55%
  SUPPLEMENTAL BENEFITS: (per hour worked)
```

\$ 11.40 4.54 7.65 11.40

Teamster - Building
WARREN COUNTY: Only the Townships of Bolton, Warrensburg, Thurman,
Stony Creek, Lake George, Lake Luzerne and Queensbury.
ALBANY COUNTY: Entire County COLUMBIA COUNTY: Entire
FULTON COUNTY: Entire County GREENE COUNTY: Entire
MONTGOMERY COUNTY: Entire County RENSSELAER COUNTY: Entire
SARATOGA COUNTY: Entire County SCHENECTADY COUNTY: Entire
SCHOHARIE COUNTY: Entire County WASHINGTON COUNTY: Entire
GROUP # A:
Straight trucks winch trops: Entire County Entire County Entire County Entire County Entire County Straight trucks, winch, transit mix on the site, road oilers, dump trucks, pick-ups, panel, water trucks, fuel trucks on the site

......

-----Case Number-----

2003

(including nozzle).

GROUP # B:

Low boy or Low boy trailer, Euclids or similar equipment.

WAGES: (per hour)

7/01/2002 10/01/03 10/01/04 10/01/05 Building: Group #A...... Group #B..... Addit. Addit. Addit. 1.55 1.60 18.72 19.02

OVERTIME PAY:..... See (B,E,E2,Q,) on OVERTIME PAGE.

HOLIDAY:

Paid :..... See (1) on HOLIDAY PAGE.

Overtime :.... See (5, 6) on HOLIDAY PAGE.

SUPPLEMENTAL BENEFITS: (per hour worked)

1-294

Teamster - Heavy Highway
WARREN COUNTY: Only the Townships of Bolton, Warrensburg, Thurman,
Stony Creek, Lake George, Lake Luzerne and Queensbury.
ALBANY COUNTY: Entire County COLUMBIA COUNTY: Entire County
FULTON COUNTY: Entire County GREENE COUNTY: Entire County
MONTGOMERY COUNTY: Entire County RENSSELAER COUNTY: Entire County
SARATOGA COUNTY: Entire County SCHENECTADY COUNTY: Entire County
SCHOHARIE COUNTY: Entire County WASHINGTON COUNTY: Entire County
GROUP #1:
Warehousemen, Vardmen, Truck Helpers, Pickups, Papel Trucks. Warehousemen, Yardmen, Truck Helpers, Pickups, Panel Trucks, Flatboy Material Trucks(straight jobs), Single Axel 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 Distribitor Trucks, and Agitator, Mixer Trucks and dumpcrete type vehicles, Truck Mechanic, Fuel

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.

GROUP #5: Off-highway Tandem Back-Dump, Twin Engine Equipment and Double-Hitched Equipment where not self-loading.

WAGES: (per hour)

7/01/2003 Heavy/Hiway: \$20.67 20.72 20.77 20.92 21.07

Hazardous waste projects that require a Level C or greater protection shall be paid an additional \$ 1.50 per hour.

All employees who work a single irregular work shift starting between 5pm

Page 36 Prevailing Rate Schedule
New York State Department of Labor
Case Number
0402441 SCHENECTADY 2003
and l am on governmental mandated night shifts shall be paid an additional 1.50 per hour.
For work bid on or after April l, 1995, there shall be a 12 month carryover of the negotiated rate in effect at the time of the bid.
OVERTIME PAY: See (B,E,Q,) on OVERTIME PAGE.
HOLIDAY: Paid : See (5, 6) on HOLIDAY PAGE. Overtime : See (5, 6) on HOLIDAY PAGE.
SUPPLEMENTAL BENEFITS: (per hour paid)
\$ 9.25
1-294h
Welder STATEWIDE: Applies to all counites. WAGES (per hour)
7/01/2003
Welder (To be paid the rate of the mechanic performing the work)

The contractor shall provide noise and dust control during all site activities to minimize impact to the surrounding community.

1.3 SITE DESCRIPTION AND HISTORY

A. Site Description

The Riverside Technology Park brownfield project site (Brownfield Site No. B00053-4) is Lot No. 6 of the industrial park. It is a 2.44 acre parcel located on the north side of Technology Drive, and bordered to the north by the City of Schenectady wastewater treatment facility and the Mohawk River. It is bordered to the west by Lot No. 7 (recently redeveloped by Bitwise Designs, Inc.) and to the east by Anthony Street. Riverside Technology Park is a 40 acre tract of land in Schenectady County that was donated to the City of Schenectady in 1982. The City of Schenectady Industrial Development Agency is redeveloping the tract for the establishment of a number of light industrial businesses. Lot No. 6 is located on the north side of Technology Drive and adjacent to the City of Schenectady wastewater treatment facility and the Mohawk River.

The site was part of the former Sousa Petroleum Bulk Storage Facility. This storage facility was operated until the late 1960's which resulted in the disposal of hazardous substances, including petroleum contamination in the subsurface soils and the groundwater. A number of these petroleum-derived constituents including ethylbenzene, xylene and acetone are above applicable SCG's and are to be removed. The SCG for total volatile substances of 10 ppm has also been exceeded. These criteria as well as visual indications of petroleum product will be evidence of clean-up criteria exceedance.

B. Operational/Disposal History

A portion of the eleven acre Sousa Petroleum Bulk Storage Facility existed on the site until the late 1960s, at which time it was decommissioned. During its operation the terminal contained seven major oil tanks (designated as Tank 1 through Tank 7) with a total volume of roughly 8.8 million gallons, and the two smaller non-designated tanks of unknown volume. Previous investigations revealed that former Storage Tanks No. 6 and No. 7, along with two smaller non-designated storage tanks, were situated within the brownfield site. Most of the former tank sites are west of the project site.

C. Remedial History

In 1982, ownership of the former Sousa facility was transferred to the City of Schenectady Industrial Development Agency (COSIDA). A field inspection of the former petroleum storage facility was performed and consisted of the completion of five soil borings and groundwater analysis. The resulting report concluded that "...petroleum products were evident in the soils and groundwater. However, based on sampling and analysis that was undertaken, we find no indication of significant concentrations of hazardous materials in the groundwater."

In 1990, the above ground storage tanks (ASTs) and manmade structures associated with the former Sousa Petroleum Bulk Storage Facility were removed under the guidance of the Region 4 NYSDEC Office. A subsequent Phase II field study advanced seven more soil borings and analyzed composite soil samples. It was determined that unacceptable levels of petroleum-derived constituents were present. NYSDEC was notified, and the site was subsequently investigated under the NYS Spill Program and assigned Spill No. 9109934 to the site.

In 1996, test pits were observed and sampled in anticipation of road construction for the proposed Riverside Technology Park. Light to heavy contamination of soils and groundwater was observed in six of the nine test pits located within Lot No. 6 and 7.

Issue: 10/1/03

Revised: 4/20/04

Summary of Work Section 01010 Page 2 of 6 Additional studies were conducted under the NYSDEC Brownfields Program during 2000 to 2003. The purpose of the SI (Site Investigation) was to define the nature and extent of any contamination resulting from previous activities at the site. The SI was conducted in three phases. The first phase was conducted between June and September 2000, the second phase between September and November 2001, and a third phase, during August 2002. A report entitled "Site Investigation/Remedial Alternatives Report Brownfield Environmental Restoration Project No. B00053-4; Lot No. 6 - Riverside Technology Park; December 2002" has been prepared which describes the field activities and findings of the SI in detail.

1.4 PROJECT DESCRIPTION

The project generally consists of the following work items: Site mobilization and preparation including work areas and drainage and erosion controls; decommissioning and removal of eight (8) existing ground water monitoring wells; excavating and disposing of approximately 6,200 tons (3,675 cubic yards) of petroleum-contaminated soil; dewatering of the anticipated excavation area with collection and disposal of the excavation water to the City of Schenectady sewer system, possibly with pre-treatment by carbon filtration; placing and compacting earth fill materials in the completed excavation with site restoration to pre-existing grades; performing QA/QC soil and water testing.

A. SUMMARY OF PROPOSED WORK

The following is a list of major work items required by the Contract Documents:

Mobilize and demobilize to the project site.

- 1. Excavation, de-watering as necessary, and off-site disposal of approximately 6,200 tons (approximately 3,675 cubic yards) of petroleum contaminated soil to a permitted solid waste landfill facility for final disposal.
- Management of water encountered and removed during excavation below the water table.
 Sampling/testing, treatment (as required), and discharge to the City of Schenectady POTW of removed excavation ground water.
- 3. Surface restoration of the excavation areas to pre-existing grades by backfilling with approximately 3,675 cubic yards of clean fill material from offsite, and, in approximately 35,000 square feet of the excavated and disturbed area seeding of appropriate vegetative cover.
- Removal of the eight monitoring wells.

1.5 WORK UNDER OTHER CONTRACTS

Not used.

1.6 WORK SEQUENCE

No specific restrictions of the Sequence of Work will be provided to the Contractor.

Issue: 10/1/03 Revised: 4/20/04 Summary of Work Section 01010 Page 3 of 6

1.7 CONTRACTOR USE OF PREMISES

- A. General: During the construction period the Contractor shall have full use of the premises for construction operations, including use of the site. The Contractor's use of the premises is limited only by the Owner's right to perform operations on the site with its own forces.
- B. Confine operations to areas within Contract limits indicated. Portions of the site beyond areas in which construction operations are indicated are not to be disturbed.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

In addition to the summary of proposed work presented in Part 1 of this Section, the Contractor shall prepare and submit project specific operational plans to address the following:

3.1 SPILL CONTROL

The Contractor shall devise methods, provide the means and take action to prevent further contamination of soil, water, atmosphere, structures, equipment or material resulting from spills generated from operations at the site.

The Contractor shall maintain equipment and train personnel on-site to perform emergency measures necessary to contain, remove and clean up all spills generated from operations at the site.

In event of a spill, the Contractor shall take immediate contingency actions in accordance with the approved Health and Safety Plan and local, State, and Federal regulations.

In addition, the Contractor shall notify the Owner's representative and the NYSDEC within 24 hours of the spill and keep him informed of action being taken to comply with these requirements.

All spill material, absorbents, and other waste materials resulting from a spill shall be removed and disposed of in a manner approved by the NYSDEC.

When a spill occurs, the Contractor's Safety Officer shall submit a written report to the Engineer within 48 hours of the incident including, as a minimum, date of the incident, a map of the incident, details of the cause and resolution of the incident, outside agencies involved, impact on the environment and potential claims by third parties.

3.2 ENVIRONMENTAL PROTECTION

For the purpose of these Specifications, environmental protection is defined as the retention of the environment in its natural state to the greatest extent possible during all project activities and to preserve the natural appearance in its final condition. Environmental protection requires consideration of air, water, and land resources and involves elimination of noise, solid waste management and management of other pollutants.

In order to prevent, and to provide for abatement and control of any environmental pollution arising from any activity in performance of this Contract, the Contractor and his subcontractors shall comply with all applicable Federal, State, and local laws and regulations.

Issue: 10/1/03 Summary of Work Section 01010
Page 4 of 6

Should the Engineer become aware of any apparent non-compliance with Federal, State or local environmental laws or regulations he may notify the Contractor of it in writing. The Contractor shall, after receipt of such notice, immediately inform the Engineer of his proposed corrective action and shall take such action as may be approved. If the Contractor fails or refuses to comply promptly, the Owner or his representative may issue an order stopping all or part of the Work until satisfactory corrective action has been taken. No part of the time lost due to any such stop orders shall be used by the Contractor to apply for and/or justify an extension of time or reimbursement for additional costs or damages.

Compliance with the provisions of this section by Subcontractors will be the responsibility of the Contractor.

The Contractor shall take all necessary measures to control release of dust. These measures will be employed at the Contractor's expense as necessary, following the determination by the Engineer.

3.3 PROTECTION OF WATER RESOURCES

The Contractor shall not pollute waterways with fuels, oils, bitumens, calcium chloride, acids, insecticides or other harmful materials. The Contractor shall investigate and comply with all applicable Federal, State and local laws concerning pollution of rivers and streams.

The Contractor shall conduct his operations in conformance with his approved Work Plan which must address soil erosion and sediment control. Surface drainage from within the limits of the Work shall be held in suitable sedimentation controls (silt fences) or the ground shall be graded to control erosion within acceptable limits, as appropriate. Temporary erosion and sediment control measures shall be provided and maintained until the Work has been completed. The area of bare soil exposed at any given time by construction shall be restricted to a minimum and shall be approved by the Engineer. The Contractor shall comply with all applicable Federal, State and local laws concerning soil erosion and sediment control.

Disposal in or adjacent to the Project Site of any debris, wastes, effluents, trash, garbage, oil, grease, chemicals or other miscellaneous materials, resulting from Contract Work will not be permitted. If any waste material is dumped in unauthorized areas, the Contractor shall remove the material and restore the area to its original condition. If necessary, ground contaminated from such unauthorized disposal operation shall be excavated, disposed as directed by the Engineer, replaced with suitable fill material, compacted and finished with topsoil, and planted as required to re-establish vegetation, all at no additional cost to the Department.

The Contractor shall take all reasonable measures to minimize interference with disturbance to wildlife.

All wastes resulting from contractor operations on this Contract shall be removed and disposed in approved locations at no additional cost to the Owner in accordance with applicable Federal, State and local laws and the requirements of other sections of these specifications. Such materials shall be removed from each Contractor Work Area before requesting final acceptance of the Work.

The Contractor shall take all necessary measures (in addition to those required by Federal, State, and local laws and regulations and the requirements of other sections of these specifications) to minimize the migration of dust off-site due to site activities. The Contractor shall be responsible for providing dust control on all unpaved roads used by transport vehicles and construction equipment. As a minimum, during dry weather conditions, unpaved roads shall be wetted twice a day, or more often if directed by the Department. No oils, calcium chlorite or contaminated liquids shall be used for dust control. The Contractor shall have available, on a full time basis, dust control measures that shall be employed during excavation, loading and off-site transportation activities of the project. The dust control measures shall be performed in

Issue: 10/1/03 Summary of Work Section 01010
Page 5 of 6

accordance with the requirement of the Contract Documents, the Health and Safety Plan and the Work Plan prepared by the Contractor.

The Contractor shall take any necessary measures (in addition to those required by Federal, State and local laws and regulations and requirements of other sections of these specifications to control odors as determined by the Owner's representative or the NYSDEC.

3.4 SURFACE WATER MANAGEMENT

Size, layout and construction of any surface water management features shall be in a accordance with applicable Soil Erosion and Sediment Control Standards.

Surface water shall be prevented from entering areas of exposed excavation or other known areas of contamination for peak discharge flow resulting from up to four (4) inches of precipitation within a 24-hour period rain storm.

In the event success access to become contaminated, the affected areas shall be cleaned in accordance with instructions given by the Engineer of the NYSDEC at the Contractor's expense.

3.5 CONTRACTOR QUALITY CONTROL

The quality of all Work shall be the responsibility of the Contractor. The Contractor shall provide and maintain an effective quality control program that complies with the Contract Documents and Work Plan specified herein.

The Contractor shall furnish qualified personnel, appropriate facilities, instruments, and testing devices necessary for the performance of the quality control system; these shall be adequate to cover all operations, including both on-site and off-site fabrication and testing.

3.6 FIRE PREVENTION AND CONTROL

In the event that a fire breaks out, or one is suspected, which cannot be controlled by available on-site equipment, the Contractor shall immediately inform the local fire department, and the Department. All Work that would endanger health or safety of on-site or off-site personnel shall be stopped until the fire has been brought under control and the danger has passed, as determined by the Engineer.

Contractor shall mixte and most with the local fire departs and makes sound of an completion of mountainers.

END OF SECTION 01010

Issue: 10/1/03

SECTION 01026 UNIT PRICES & MEASUREMENT FOR PAYMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division-1 Specification Sections, apply to this Section.

1.2 SUMMARY

This Section specifies administrative and procedural requirements for unit prices.

- A unit price is an amount proposed by Bidders and stated on the Bid Form as a price per unit of
 measurement for materials or services that will be added to or deducted From the Contract Sum by Change
 Order in the event the estimated quantities of Work required by the Contract Documents are increased or
 decreased.
- 2. 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. The Owner does not assume any responsibility that the quantities shall be strictly attained in the construction of the work, nor shall the Contactor plead misunderstanding or deception because of such estimate of quantities or of the character of the work, location or other condition pertaining thereto. The Owner reserves the right to increase or diminish any or all of the quantities of work as Owner sees appropriate.
- 3. Unit prices include all labor, materials, equipment, tools, supervision overhead, profit applicable taxes, and additional services necessary to complete the Work.
- 4. No direct or separate payment will be made for any work required by the Specifications or Drawings unless it is defined as a pay item. Full payment for all such labor, materials, equipment, tools, supervision and services and minor work required is included under the unit price or lump sum pay items.
- 5. No direct or separate payment will be made for providing miscellaneous temporary or accessory works, plant, services, Contactor's office, Engineer's field equipment, layout surveys, job signs, sanitary requirements, testing, safety devices, approval and record drawings, water supplies, power, maintaining traffic, removal of remaining waste, watchman, bonds, insurance and all other items as required by the General Conditions, Supplementary Conditions, and the General Requirements. Compensation for all such services, materials, and related work is to be included in the prices stipulated for the unit and/or lump sum pay items listed herein.
- B. Schedule: A "Unit Price Schedule" is included at the end of this Section. Specification Sections referenced in the Schedule contain requirements for materials and methods described under each unit price.
- The Owner reserves the right to reject the Contractor's measurement of work-in-place that involves use of established unit prices, and to have this Work measured by an independent surveyor or engineer acceptable to the Contractor at the Owner's expense.

PART 2 - PRODUCTS (Not Applicable)

Issue: 10/1/03

Unit Prices & Measurement for Payment Section 01026 Page 1 of 5

PART 3 - EXECUTION

3.1 UNIT PRICE SCHEDULE

Item LS-1 - Mobilization/Demobilization

- A. Description: Mobilization and demobilization includes, but is not limited to, project startup costs and project closeout costs specified in Section 02011, preparation of various Work Plans and Health & Safety Plan required to be submitted, and additional costs associated with fulfilling obligations for the completion of the Project in accordance with the Contract Documents. Included are all costs associated with the work that are not included in other payment items. The Contractor shall submit a bid breakdown for this bid item that shows the individual costs of installations of Section 02011.
- B. Measurement: Lump Sum.
- C. Payment: Full compensation for work performed. 70 percent of the bid price will be paid for

upon complete mobilization and accepted site peparation, 30 percent will be paid

for demobilization and accepted site restoration.

Item LS-2 —Monitoring Well Decommissioning

- 1. Description: Eight (8) ground water monitoring wells decommissioned and removed in accordance with the Contract Drawings and Specifications (Section 02120). Includes proper dismantling and removal, decommissioning, decontamination, and disposal of wastes.
- 2. Measurement: Lump Sum.
- 3. Payment: Full compensation for work performed to completely decommission and dispose of

all existing monitoring wells.

Item LS-3 – Construct Dewatering Facilities/Utilities

A. Description: Construct Dewatering Facilities/Utilities includes those costs associated with the construction and operation of facilities necessary to accomplish the dewatering of the project excavation prior to soil excavation and removal from the project site, and implementation of the dewatering activities described in the Excavation Dewatering Plan, all as called for in Section 02220.

B. Measurement: Lump Sum.

C. Payment: Full compensation for work performed. 60 percent of the bid price will be paid for

upon completed and accepted construction and implementation, 40 percent will be

paid upon completion of excavation and removal of installation.

Unit Prices & Measurement for Payment Section 01026 Page 2 of 5

Item UP-4 - Site Health And Safety & Site Management

- 1. Description: Implement and manage the approved Health and Safety Plan in accordance with the Contract Documents and applicable laws, rules and regulations governing the Work performed under this Contract. Includes, but is not limited to, all site management and security duties and all H&S work associated with the excavation and handling of contaminated soils. This item includes all H&S related decontamination of equipment and sampling of soils and water, furnishing and maintaining H&S monitoring equipment and supplies, maintaining decon and dewatering pads and site facilities, air sampling and analytical costs, training and medical monitoring, and all else required by the Health & safety Plan to protect the Contractor's employees, Engineer's and NYDDEC personnel, site visitors, and the community.
- 2. Measurement: Per Day.
- 3. Payment: Full compensation at the item unit price for work performed for each day the site is maintained and the Health & safety Plan is adhered to. Payment will be at 50% of the bid unit price for each day the Health & Safety Plan is adhered to and there is no exclusion zone but air monitoring is continuous. Payment will only be made for days during which work is being performed on the site and contaminated soils are being excavated or handled.

Item UP-5 – Contaminated Soil Excavation & Removal

- Description: Provide all labor, tools, machinery and equipment necessary for excavation, staging, handling, removal and disposal of designated contaminated soils. Item includes excavation of soils, maintenance of excavations, testing for disposal facility compliance, and transport and disposal of contaminated soils at an approved disposal facility, in accordance with the Contract Documents (Section 02504).
- Measurement: Per Ton of excavated and disposed of soils as determined by measurement of
 excavation by transport manifest weight records based upon certified scale tickets
 obtained by the Contractor from a scale certified by the local county Office of
 Weights and Measures.
- 3. Payment: Full compensation at the item unit price for each ton of contaminated soil excavated, removed, and disposed.

Item UP-6- Excavation Backfill & Site Grading

Issue: 10/1/03

- 1. Description: Provide all labor, tools, machinery and equipment necessary for backfilling the work excavations with compacted imported clean earth materials to pre-excavation grades, and re-establishment of site grading. Item includes importing of approved earth materials from approved and permitted sources, analytical testing, gradation and compaction testing, placement and compaction in accordance with the Contract Documents (Section, 02200, 02221, 02506).
- 2. Measurement: Per Cubic Yard (CY) of earth materials in place, as measured by the volume of excavations as determined by instrument survey to monitor excavation depth and excavation limits by cross-section and reference to the excavation survey grid.
- 3. Payment: Full compensation at the item unit price for each cubic yard of clean compacted backfill in place.

Item UP-7 - Site Restoration & Seeding

- 1. Description: Provide all labor, tools, machinery and equipment necessary for restoring the site to pre-existing grades with no concentration of surface runoff drainage or ponding of surface runoff. Includes grading and conditioning of ground surface for seed, and seeding, in all areas disturbed by the Project activities in accordance with the Contract Documents (Section 02200, 02931).
- Measurement:

Per 1,000 Square Feet (SF) of site area restored and seeded of as determined by

reference to the Contract Drawings, site features, and site survey grid.

3. Payment:

Full compensation at the item unit price for each 1,000 Square Feet of restored and

seeded area.

Item UP-8 - Construction Water Management - Untreated

- 1. Description: Provide all labor, tools, machinery and equipment necessary for collecting, managing and disposing of all excavation and construction water which can be discharged to the City of Schenectady sewer system for disposal without treatment by carbon filtration, in accordance with the Contract Documents (Sections 02220, 02225, 02511, 02506).
- 2. Measurement:

Per Gallon of untreated excavation and construction water disposed of, as

measured by calibrated totalizing flow meter approved by the engineer, discharged

to the City sewer system.

3. Payment:

Full compensation at the item unit price for each metered gallon of untreated water

disposed.

Item UP-9 - Construction Water Management - Treated

- 1. Description: Provide all labor, tools, machinery and equipment necessary for collecting, managing, treating, and disposing of all excavation and construction water which must be pre-treated by carbon filtration in order to meet City of Schenectady Treatment Plant effluent limitation criteria prior to discharge to the City of Schenectady sewer system, in accordance with the Contract Documents (Sections 02220, 02225, 02511, 02506).
- Measurement:

Per Gallon of pre-treated excavation and construction water disposed of, as

measured by calibrated totalizing flow meter approved by the engineer, discharged

to the City sewer system.

Payment:

Full compensation at the item unit price for each metered gallon of pre-treated

water disposed.

Item UP-10 - Construction Water Testing

- Description: Provide all labor, tools, machinery and equipment and containers necessary for testing of construction water and excavation water to verify compliance with City of Schenectady Treatment Plant effluent limitation criteria prior to discharge to the City sewer system for disposal. Includes all shipping, laboratory testing, laboratory and independent OA/OC procedures, and report submittal of all field and laboratory procedures and results, accordance with the Contract Documents (Section 02506).
- 2. Measurement: Per Sample/Analysis of excavation water and construction water collected and

analyzed, upon receipt of complete report of sampling and analysis in accordance

with the approved QA/QC Plan.

3. Payment: Full compensation at the item unit price for each sample/analysis meeting the

approved QA/QC requirements.

Item UP-11 - Soil Verification Testing

Description: Provide all labor, tools, machinery and equipment and containers necessary for testing of excavation bottom soil samples to verify compliance with Project goals and SCGs for site restoration in accord with the NYSDEC Project Record of Decision. Includes all shipping, laboratory testing, laboratory and independent QA/QC procedures, and report submittal of all field and laboratory procedures and results, accordance with the Contract Documents (Section 02506).

2. Per Sample/Analysis of excavation soil samples collected and analyzed, upon receipt Measurement:

of complete report of sampling and analysis in accordance with the approved

QA/QC Plan.

3. Payment: Full compensation at the item unit price for each sample/analysis meeting the

approved QA/QC requirements.

Item UP-12 - Pollution Liability Insurance

1. Description: Provide required Pollution Liability Insurance in accordance with the Contract General Requirements and Supplementary Conditions.

2. Measurement: Contractor's Cost of Insurance provided.

3. Payment: No payment will be made for this item. This item is not separately included

in the Contract Price.

END OF SECTION 01026

Issue: 10/1/03

Unit Prices & Measurement for Payment Section 01026 Page 5 of 5

SECTION 01027 APPLICATIONS FOR PAYMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division-1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements governing each prime Contractor's Applications for Payment.
 - 1. Coordinate the Schedule of Values and Applications for Payment with the Contractor's Progress schedule, List of Subcontracts, and Submittal Schedule.
- B. The Contractor's Progress schedule and Submittal Schedule are included in Section "Submittals".

1.3 SCHEDULE OF VALUES

- Coordinate preparation of the Schedule of Values with preparation of the Contractor's Progress schedule.
- B. Each prime Contractor shall coordinate preparation of its Schedule of Values for its part of the Work with preparation of the Contractors' Progress schedule.
 - 1. Correlate line items in the Schedule of Values with other required administrative schedules and forms, including:
 - Contractor's progress schedule.
 - b. Application for Payment form.
 - c. List of subcontractors.
 - d. Schedule of allowances.
 - e. Schedule of alternates.
 - f. List of products.
 - g. List of principal suppliers and fabricators.
 - Schedule of submittals.
 - 2. Submit the Schedule of Values to the Engineer at the earliest feasible date, but in no case later than 21 days before the date scheduled for submittal of the initial Application for Payment.
- Format and Content: Use the table included in the Bid Form for the Schedule of Values.
 - Identification: Include the following Project identification on the Schedule of Values:
 - a. Project name and location.
 - b. Name of the Engineer.
 - c. Project number.
 - d. Contractor's name and address.
 - e. Date of submittal.

Applications for Payment Section 01027 Page 1 of 4

Issue: 10/1/03

- 2.Arrange the Schedule of Values in a tabular form with separate columns to indicate the following for each item listed:
 - Generic name.
 - b. Related Specification Section.
 - c. Name of subcontractor.
 - d. Name of manufacturer or fabricator.
 - e. Name of supplier.
 - f. Change Orders:(numbers) that have affected value.
 - g. Dollar value.
 - h. Percentage of Contract Sum to the nearest percent, adjusted to total 100 percent.
- Provide a breakdown of the Contract Sum in sufficient detail to facilitate continued evaluation of Applications for Payment and progress reports. Break principal subcontract amounts down into several line items.
- 4. Round amounts off to the nearest whole dollar; the total shall equal the Contract Sum.
- 5. For each part of the Work where an Application for Payment may include materials or equipment, purchased or fabricated and stored, but not yet installed, provide separate line items on the Schedule of Values for initial cost of the materials, for each subsequent stage of completion, and for total installed value of that part of the Work.
- Schedule Updating: Update and resubmit the Schedule of Values when Change Orders or Work Change Directives result in a change in the Contract Sum.

1.4 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment shall be consistent with previous applications and payments as certified by the Engineer and paid for by the Owner.
 - The initial Application for Payment, the Application for Payment at time of Substantial Completion, and the final Application for Payment involve additional requirements.
- B. Payment Application Times: The date for each progress payment is the 15th day of each month. The period of construction Work covered by each Application for Payment is the period ending 15 days prior to the date for each progress payment and starting the day following the end of the preceding period.
- C. Payment Application Forms: Use AIA Document G 702 and Continuation Sheets G 703 as the form for Application for Payment.
- D. Application Preparation. Complete every entry on the form, including notarization and execution by person authorized to sign legal documents on behalf of the Owner. Incomplete applications will be returned without action.
 - Entries shall match data on the Schedule of Values and Contractor's Progress schedule. Use updated schedules if revisions have been made.
 - Include amounts of Change Orders and Work Change Directives issued prior to the last day of the construction period covered by the application.

Applications for Payment Section 01027 Page 2 of 4

- E. Transmittal: Submit 3 executed copies of each Application for Payment to the Engineer by means ensuring receipt within 24 hours; one copy shall be complete, including waivers of lien and similar attachments, when required.
 - 1. Transmit each copy with a transmittal form listing attachments and recording appropriate information related to the application in a manner acceptable to the Engineer.
- F. Waivers of Mechanics Lien: With each Application for Payment, submit waivers of mechanics lien from every entity who may lawfully be entitled to file a mechanics lien arising out of the Contract, and related to the Work covered by the payment.
- G. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of the first Application for Payment include the following:
 - List of subcontractors.
 - 2. List of principal suppliers and fabricators.
 - Schedule of Values.
 - 4. Contractor's Progress schedule (preliminary if not final).
 - Submittal Schedule (preliminary if not final).
 - Initial progress report.
 - 7. Report of pre-construction meeting.
 - Certificates of insurance and insurance policies.
- H. Application for Payment at Substantial Completion: Following issuance of the Certificate of Substantial Completion, submit an Application for Payment; this application shall reflect any Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work.
- I. Administrative actions and submittals that shall proceed or coincide with this application include:
 - 1. Warranties (guarantees) and maintenance agreements.
 - 2. Maintenance instructions.
 - Meter readings.
 - 4. Start-up performance reports.
 - 5. Change-over information related to Owner's occupancy, use, operation and maintenance.
 - Final cleaning.
 - 7. Application for reduction of retainage, and consent of surety.
 - Advice on shifting insurance coverages.
 - Final progress photographs.
 - List of incomplete Work, recognized as exceptions to Engineer's Certificate of Substantial Completion.

- J. Final Payment Application: Administrative actions and submittals which must precede or coincide with submittal of the final payment Application for Payment include the following:
 - 1. Completion of Project closeout requirements.
 - 2. Completion of items specified for completion after Substantial Completion.
 - Assurance that unsettled claims will be settled.
 - 4. Assurance that Work not complete and accepted will be completed without undue delay.
 - 5. Transmittal of required Project construction records to Owner.
 - 6. Proof that taxes, fees and similar obligations have been paid.
 - 7 Removal of temporary facilities and services.
 - 8. Removal of surplus materials, rubbish and similar elements.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable

END OF SECTION 01027
APPLICATIONS FOR PAYMENT

Issue: 10/1/03

SECTION 01040 PROJECT COORDINATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division-1 Specification Sections, apply to this Section.

1.2 SUMMARY

- This Section specifies administrative and supervisory requirements necessary for Project coordination.
- Field engineering is included in Section "Field Engineering".
- C. Requirements for the Contractor's Construction Schedule are included in Section "Submittals".

1.3 COORDINATION

Issue: 10/1/03

- A. <u>Coordination</u>: Coordinate construction activities included under various Sections of these Specifications to assure efficient and orderly installation of each part of the Work. Coordinate construction operations included under different Sections of the Specifications that are dependent upon each other for proper installation, connection, and operation.
 - 1. Where installation of one part of the Work is dependent on installation of other components, either before or after its own installation, schedule construction activities in the sequence required to obtain the best results.
 - 2. Where availability of space is limited, coordinate installation of different components to assure maximum accessibility for required maintenance, service and repair.
 - Make adequate provisions to accommodate items scheduled for later installation.
 - 4. Coordinate construction activities with public and private utilities.
 - a. Notify "Underground Facilities Protective Organizations" (UFPO) a minimum of 48 hours prior to excavation or blasting.
 - b. Notify the Owner and Engineer of any utility locations encountered which conflict with the work. Coordinate with the Owner and Utility Company in the protection, removal, relocation or replacement of conflicting utility locations.
- B. <u>Memoranda</u>: Where necessary, prepare memoranda for distribution to each party involved outlining special procedures required for coordination. include such items as required notices, reports, and attendance at meetings.
 - Prepare similar memoranda for the Owner and separate Contractors where coordination of their Work is required.

Project Coordination Section 01040 Page 1 of 2

- C. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and ensure orderly progress of the Work.
- Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials.
 - Salvage materials and equipment involved in performance of, but not actually incorporated in, the Work. Refer to other sections for disposition of salvaged materials that are designated as Owner's property.

1.4 **SUBMITTALS**

- Staff Names. Within 5 days of Notice to Proceed, submit a list of the Contractor's principal staff assignments, including the Superintendent and other personnel in attendance at the site; identify individuals, their duties and responsibilities; list their addresses and telephone numbers.
 - Post copies of the list in the Project meeting room; the temporary field office, or at Contractor's field station, as applicable.

PART 2 - PRODUCTS (Not Applicable)

(Not Applicable) PART 3 - EXECUTION

END OF SECTION 01040

Issue: 10/1/03

Project Coordination Section 01040

SECTION 01050 FIELD ENGINEERING

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division-1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. General: This Section specifies administrative and procedural requirements for field engineering services.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.1 EXAMINATION

- A. The Owner will identify existing control points and project site limits.
- B. Verify layout information shown on the Drawings, in relation to the property survey and existing benchmarks before proceeding to layout the Work. Locate and protect existing benchmarks and control points. Preserve, or replace and/or relocate, permanent reference points during construction.
 - Do not change or relocate benchmarks or control points without prior written approval.
 Promptly report lost or destroyed reference points, or requirements to relocate reference points because of necessary changes in grades or locations.
 - 2. Promptly replace lost or destroyed project control points. Base replacements on the original survey control points.
- C. Existing utilities and equipment: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location of underground utilities and other construction.

3.2 PERFORMANCE

- A. Working from lines and levels established by the Owner, establish benchmarks and markers to set lines and levels as needed to properly locate each element of the Project. Calculate and measure required dimensions within indicated or recognized tolerances. Do not scale Drawings to determine dimensions.
 - Advise entities engaged in construction activities, of marked lines and levels provided for their use. As construction proceeds, check every major element for line, level and plumb.
- B. Site Excavation & Grading: Locate and lay out site excavation area survey grid as shown on the Contract Drawings, including stakes for grid reference, fill placement, slopes and excavation bottom elevations by instrumentation and similar appropriate means. Provide excavation quantity determinations by instrument survey and reference to survey cross-sections of the excavations, and/or the excavation area survey grid.

END OF SECTION 01050

Issue: 10/1/03

Field Engineering Section 01050 Page 1 of 1

SECTION 01085 SUBSURFACE STRUCTURES AND UTILITIES

PART 1 - GENERAL

1.1 DESCRIPTION

- A. When, in the course of the work, water lines, sewers, drains, pipe lines, subsurface structures or utilities are parallel to or in close proximity of the work and are to be removed, relocated or altered, said removal, relocation or alteration shall be in strict accordance with the requirements and specifications of the Owner of said facilities at the Contractor's expense.
- B. In addition, the Contractor shall pay particular attention to poles, pole lines, overhead wires and all other facilities above ground that will be in conflict with the work. The Contractor shall follow the same procedures outlined herein for underground facilities.
- C. In addition, Contractor shall pay particular attention to subsurface utilities, particularly the City of Schenectady sewer pipelines to the POTW that lie immediately adjacent to the proposed Work. The Contractor shall exercise extreme care when working adjacent to the sewer pipelines and shall proceed with excavation only with the understanding and approval of the City of Schenectady DEPW. The Contractor will be responsible for employing measures and protections to protect the sewer lines from disturbance, damage, or loss of service, and will be responsible for re-establishing proper sewer line support and backfill of any adjacent areas of excavation.

No excavation within four (4) feet of the City sewer lines will be allowed without written permission of the City Engineer. If excavation is necessary within four (4) feet of the City sewer lines, the Contractor will submit the proposed temporary protection for approval by the City Engineer before proceeding with any excavation. The cost of temporary protection will be at the sole expense of the Contractor.

- D. No claim for additional compensation will be allowed on account of any delay occasioned by the relocation of the Owner's facilities or the relocation of or temporary removal or replacement of all pipe lines, subsurface structures or utilities.
- E. Furnish information necessary to adjust, move or relocate existing structures, utility poles, lines, services or other appurtenances located in, or affected by construction. Coordinate with local authorities having jurisdiction.

END OF SECTION 01085

Issue: 10/1/03 Subsurface Structures and Utilities
Revised: 4/20/04 Section 01085
Page 1 of 1

SECTION 01095 REFERENCE STANDARDS AND DEFINITIONS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division-1 Specification Sections, apply to this Section.

1.2 DEFINITIONS

Issue: 10/1/03

- A. General: Basic Contract definitions are included in the Conditions of the Contract.
- B. <u>Indicated</u>: The term "indicated" refers to graphic representations, notes or schedules on the Drawings, or other Paragraphs or Schedules in the Specifications, and similar requirements in the Contract Documents. Where terms such as "shown," "noted," "scheduled," and "specified" are used, it is to help the reader locate the reference; no limitation on location is intended.
- C. <u>Directed</u>: Terms such as "directed, "requested," "authorized," "selected," "approved," "required," and "permitted" mean "directed by the Engineer," "requested by the Engineer," and similar phrases.
- D. <u>Approve</u>: The term "approved," where used in conjunction with the Engineer's action on the Contractor's submittals, applications, and requests, is limited to the Engineer's duties and responsibilities as stated in the Conditions of the Contract.
- E. <u>Regulation</u>: The term "Regulations" includes laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, as well as rules, conventions, and agreements within the construction industry that control performance of the Work.
- F. <u>Furnish</u>: The term "furnish" is used to mean "supply and deliver to the Project site, ready for unloading, unpacking, assembly, installation, and similar operations."
- G. <u>Install</u>: The term "install" is used to describe operations at project site including the actual "unloading, unpacking, assembly, erection, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations."
- H. <u>Provide</u>: The term "provide" means "to furnish and install, complete and ready for the intended use."
- I. <u>Installer</u>: An "installer" is the Contractor or an entity engaged by the Contractor either as an employee, subcontractor, or contractor of lower tier for performance of a particular construction activity, including installation, erection, application, and similar operations. Installers are required to be experienced in the operations they are engaged to perform.
 - 1. The term "experienced," when used with the term "installer, means having a minimum of five previous projects similar in size and scope to this Project, being familiar with the special requirements indicated, and having complied with requirements of the authority having jurisdiction.
 - 2. <u>Trades</u>: Use of titles such as "carpentry" is not intended to imply that certain construction activities must be performed by accredited or unionized individuals of a corresponding generic

Reference Standards and Definitions Section 01095 name, such as "carpenter." It also does not imply that requirements specified apply exclusively to tradesperson's of the corresponding generic name.

- J. <u>Project Site</u>: The space available to the Contractor for performance of construction activities, either exclusively or in conjunction with others performing other work as part of the Project. The extent of the Project Site is shown on the Drawings and may or may not be identical with the description of the land on which the Project is to be built.
- K. <u>Testing Laboratories</u>: A "testing laboratory" is an independent entity engaged to perform specific inspections or tests, either at the Project Site or elsewhere, and to report on and, if required, to interpret results of those inspections or tests.

1.3 SPECIFICATION FORMAT AND CONTENT EXPLANATION

- A. Specification Format: These Specifications are generally organized into Divisions and Sections, generally based on the Construction Specifications Institute's 16-Division format and numbering system.
- B. Specification Content: This Specification uses certain conventions in the use of language and the intended meaning of certain terms, words, and phrases when used in particular situations or circumstances. These conventions are explained as follows:
 - 1. Abbreviated Language: Language used in Specifications and other Contract Documents is the abbreviated type. Words and meanings shall be interpreted as appropriate. Words that are implied, but not stated shall be interpolated as the sense required. Singular words will be interpreted as plural and plural words interpreted as singular where applicable and the context of the Contract documents so indicates.
 - 2. Imperative and streamlined language is used generally in the Specifications. Requirements expressed in the imperative mood are to be performed by the Contractor. At certain locations in the text, for clarity, subjective language is used to describe responsibilities that must be fulfilled indirectly by the Contractor, or by others when so noted.
 - a. The words "shall be" shall be included by inference wherever a colon (:) is used within a sentence or phrase.

1.4 INDUSTRY STANDARDS

- A. Applicability of Standards: Except where the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.
- B. Publication Dates: Comply with the standard in effect as of the date of the Contract Documents.
- C. Conflicting Requirements: Where compliance with two or more standards is specified, and the standards may establish different or conflicting requirements for minimum quantities or quality levels, refer requirements that are different, but apparently equal, and uncertainties to the Engineer for a decision before proceeding.
 - 1. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. :In complying with these requirements, indicated numeric values are minimum or maximum, as

Reference Standards and Definitions Section 01095 appropriate for the context of the requirements. Refer uncertainties to the Engineer for a decision before proceeding.

- D. Copies of Standards: Each entity engaged in construction on the Project is required to be familiar with industry standards applicable to that entity's construction activity. Copies of applicable standards are not bound with the Contract Documents.
 - 1. Where copies of standards are needed for performance of a required construction activity, the Contractor shall obtain copies directly from the publication source.
- E. Abbreviations and Names: Trade association names and titles of general standards are frequently abbreviated. Where such acronyms or abbreviations are used in the Specifications or other Contract Documents, they mean the recognized name of the trade association, standards generating organization, authority having jurisdiction, or other entity applicable to the context of the text provision. Refer to the "Encyclopedia of Associations," published by Gale Research Co., available in most libraries.
- F. Federal Government Agencies: Names and titles of federal government standard or Specification producing agencies are often abbreviated. The following acronyms or abbreviations referenced in the Contract Documents indicate names of standard or Specification producing agencies of the federal government. Names and addresses are subject to change but are believed to be, but are not assured to be, accurate and up to date as of the date of the Contract Documents.

CFR

Code of Federal Regulations
Government Printing Office
N. Capitol St. between G and H St. NW
Washington, DC 20402
(202) 783-3238 (Materi

(Material is usually first published in the "Federal Register")

NYCRR

Official Compilations of Code Rules and Regulations of the State of New York New York State Fire Prevention and Building Code 162 Washington Avenue Albany, NY 12231 (518) 474-4073

OSHA

Issue: 10/1/03

Occupational Safety and Health Administration (U.S. Department of Labor)
Government Printing Office
N. Capitol St. between G and H St. NW
Washington, DC 20402
(202) 523-6091

1.5 GOVERNING REGULATIONS/AUTHORITIES

A. The Engineer has contacted authorities having jurisdiction where necessary to obtain information necessary for preparation of Contract Documents. Contact authorities having jurisdiction directly for information and decisions having a bearing on the Work.

Reference Standards and Definitions Section 01095 Page 3 of 4

1.6 SUBMITTALS

A. Permits, Licenses, and Certificates: For the Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, and similar documents, correspondence, and records established in conjunction with compliance with standards and regulations bearing upon performance of the Work.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 01095

Issue: 10/1/03

Reference Standards and Definitions Section 01095 Page 4 of 4

SECTION 01300 SUBMITTALS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division-1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements for submittals required for performance of the Work, including;
 - Contractor's progress schedule.
 - Submittal schedule.
 - Work Progress/Process Plans.
 - 4. Daily construction reports.
 - 5. Shop Drawings.
 - Product Data.
 - Samples.
- B. Administrative Submittals: Refer to other Division-1 Sections and other Contract Documents for requirements for administrative submittals. Such submittals include, but are not limited to:
 - Permits.
 - 2. Applications for payment.
 - Performance and payment bonds.
 - Insurance certificates
 - List of Subcontractors.
- C. The Schedule of Values submittal is included in Section "Applications for Payment."

1.3 SUBMITTAL PROCEDURES

- A. Coordination: Coordinate preparation and processing of submittals with performance of construction activities. Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay.
 - Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals and related activities that require sequential activity.
 - 2. Coordinate transmittal of different types of submittals for related elements of the Work in order that processing of submittals will not be delayed by the need to review submittals concurrently.
 - a. The Engineer reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.

- 3. Processing: Allow sufficient review time so that Work will not be delayed as a result of the time required to process submittals, including time for resubmittals.
 - a. Allow two weeks for initial review. Allow additional time if processing must be delayed to permit coordination with subsequent submittals, or if required specifically by the Specifications. The Engineer will promptly advise the Contractor when a submittal being processed must be delayed for coordination.
 - If an intermediate submittal is necessary, process the same as the initial submittal.
 - c. Allow two weeks for reprocessing each submittal.
 - d. No extension of Contract Time will be authorized because of failure to transmit submittals to the Engineer sufficiently in advance of the Work to permit processing.
- B. Submittal Preparation: Place a permanent label or title block on each submittal for identification. Indicate the name of the entity that prepared each submittal on the label or title block.
 - 1. Provide a space on the label or beside the title block on Shop Drawings to record the Contractor's review and approval markings and the action taken.
 - 2. Include the following information on the label for processing and recording action taken.
 - a. Project name.
 - b. Date.
 - c. Name and address of Engineer.
 - d. Name and address of Contractor.
 - e. Name and address of subcontractor.
 - f. Name and address of supplier.
 - g. Name of manufacturer.
 - h. Number and title of appropriate Specification Section.
 - Drawing number and detail references, as appropriate.
 - No faxed copies of submittals will be approved by Engineer.
 - C. Submittal Transmittal: Package each submittal appropriately for transmittal and handling. Transmit each submittal from Contractor to Engineer using a transmittal form. Submittals received from sources other than the Contractor will be returned without action.
 - 1. On the transmittal, record relevant information and requests for data. On the form, or separate sheet, record deviations from Contract Document requirements, including minor variations and limitations. Include Contractor's certification that information complies with Contract Document requirements.

1.4 CONTRACTOR'S CONSTRUCTION SCHEDULE

A. Bar-Chart Schedule: Prepare a comprehensive and complete horizontal bar chart construction schedule. Submit within 5 days of Notice to Proceed.

- 1. Provide a separate time bar for each significant construction activity. Provide a continuous vertical line to identify the first working day of each week. Use the same breakdown of units of the Work as indicated in the "Schedule of Values".
- 2. Within each time bar indicate estimated completion percentage in 10 percent increments. As Work progresses, place a contrasting mark in each bar to indicate Actual Completion.
- 3. Prepare the schedule on a sheet, or series of sheets, of stable transparency, or other reproducible media, of sufficient width to show data for the entire construction period.
- 4. Coordinate each element on the schedule with other construction activities; include minor elements involved in the sequence of the Work. Show each activity in proper sequence. Indicate, graphically sequences necessary for completion of related portions of the Work.
- Coordinate the Contractor's progress schedule with the schedule of values, list of subcontracts, submittal schedule, progress reports, payment requests and other schedules.
- 6. Indicate completion in advance of the date established for Substantial Completion. Indicate Substantial Completion on the schedule to allow time for the Engineer's procedures necessary for certification of Substantial Completion.
- B. Distribution: Following response to the initial submittal, print and distribute copies to the Engineer, Owner, subcontractors, and other parties required to comply with scheduled dates. Post copies in the temporary field office/station.
 - 1. When revisions are made, distribute to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in construction activities.
- C. Schedule Updating: Revise the schedule after each meeting or activity, where revisions have been recognized or made. Issue the updated schedule concurrently with report of each meeting.

1.5 Work Progress/Process Plans

All submittals specified in Section 01300, Sub-section 1.5 A, "Submittals Five (5) Days After Notice to Apparent Low Bidder" shall be delivered for the Engineer and NYSDEC review in 8 copies. Upon acceptance by the Engineer of a document specified in subsection Sub-section 1.5 A, the Contractor shall deliver to the Engineer 8 copies of each document. Eight copies of the final Health and Safety Plan must also be submitted to the Department

A. SUBMITTALS FIVE DAYS AFTER NOTICE TO APPARENT LOW BIDDER

The apparent low bidder shall submit the following plans for the Work. The plans must address at a minimum, the items referenced below:

- Work Plan
 - Excavation (soil, hazardous waste)
 - b. Material Handling
 - c. Quality Control.
 - d. Soil Erosion and Sedimentation Control
 - e. Environmental Control
 - f. Construction Water Management.

Section 01300, Sub-section 1.5 B for requirements of this plan.

- 2. Sampling and Analysis/Quality Assurance/Quality Control Plan (QA/QC Plan)
 - a. Sampling Procedures
 - b. Analytical Methods
 - c. Chemical Quality Control Measures

Refer to Section 01300, Sub-section 1.5 C for requirements of this plan.

- 3. Health and Safety Plan.
 - a. Health and Safety.
 - Decontamination of Equipment and Personnel.
 - c. Contingency Measures.
 - d. Community Air Monitoring.

Refer to Section 01310 for minimum requirements of the Health and Safety Plan.

B. WORK PLAN

The Work Plan shall address all items referenced herein:

General Requirements

- Adequate diagram of the Work site with a layout showing existing site conditions, and the location of hauling routes and truck routes through public streets, staging areas, office trailers, air monitoring stations, drainage controls and the access to the site. The diagram shall also show the "decontamination areas", and the "clean areas" all of which are defined in the Health and Safety Guidelines.
- Identification of any permits required to conduct Work.
- c. Materials Handling Plan including procedures for handling the hazardous wastes and the contaminated soils (Section 02007).
- d. Identify the size of staging, dewatering and temporary water treatment areas (including onsite locations for staging and for disposal of trees and brush), locations and maintenance activities.
- e. Procedures for bulking wastes on-site for shipment off-site.
- Provision for the control and prevention of surface runoff from the active construction Work sites.
- g. Provisions for the control of fugitive emissions to the air including dust control. Note: Calcium chloride will not be allowed for dust control.
- A detailed Work schedule (i.e., bar chart) for performance of tasks required to fulfill the Contract.
- Any other requirements necessary to provide adequate staging and removal of wastes from the site.

- Measures to control surface water and to maintain separation of construction water from uncontaminated water during excavation.
- List and condition of equipment to be used on-site.

2. Quality Control

The quality of Work shall be the responsibility of the Contractor. The Contractor shall maintain an effective quality control program that complies with the Contract Documents and approved Work Plan. The Contractor shall furnish qualified personnel, appropriate facilities, instruments and testing devices necessary for the performance of the quality control system; these shall be adequate to cover all operations. Sufficient inspections and tests shall be performed on a continuous basis of all items of Work, including Work performed by Subcontractors.

Sequence of Work:

The Contractor shall prepare and submit a detailed sequence of Work that describes all activities and their sequencing as related to all work including hazardous waste excavation and removal, soil excavation and offsite removal or, backfilling and surface restoration of excavated areas, and removal of monitoring wells and piezometers. The sequence of Work shall address specific means, methods and procedures for all tasks that will be employed by the Contractor, to perform its Work in a manner that will minimize the risk to the property owners and other nearby residences.

C. SAMPLING AND ANALYSIS PLAN

1. General

The Contractor shall provide a sampling and analysis plan for all materials generated during remedial activities. The Contractor shall provide all required sample and shipping containers, collect representative samples under chain-of-custody, ship all samples for analysis to the laboratory (also provided by the Contractor), and provide complete analytical reports with the appropriate quality assurance/quality control package.

The Sampling and Analysis Plan shall specifically address the following, as these materials are required to be sampled in these Specifications.

- Confirmation of adequate decontamination
- Treated construction water samples.
- Liquids generated from decontamination activities.
- Confirmatory samples from Contractor's work/staging areas.
- e. Required air monitoring sampling.

The Sampling and Analysis Plan shall also list:

- Sampling and sample custody procedures, along with any references used as a source for the procedure.
- Description of equipment.
- Sampling team and qualifications.

Issue: 10/1/03 Submittals
Section 01300
Page 5 of 9

Chemical Quality Assurance Plan

The Sampling and Analysis Plan shall also include a Chemical Quality Assurance/Quality Control Plan (QA/QC Plan) developed by the Contractor. The QA/QC Plan is a required document for this project. The Contractor's QA/QC Plan will be reviewed and commented on by the NYSDEC during the award period. The QA/QC Plan must be accepted by the NYSDEC before the Contract can be awarded.

The requirements presented herein are minimum requirements required by the New York State Department of Environmental Conservation. The TSDF, NYSDOT, USDOT or other states may require additional sample(s), analysis and/or requirements for proper transportation and disposal of the wastes to the TSDF. Final disposal will be subject to State requirements and specific requirements of the TSDF. The Contractor shall be responsible for compliance with all appropriate and applicable requirements for final disposition of all waste/contaminated materials.

a. Analysis of decon water

Waters generated on site as a result of decon operations shall be collected on site for subsequent treatment as part of the scope of Work of this project.

b. Air Monitoring Samples

As indicated in the Health and Safety Plan specification, air samples shall be collected and analyzed during excavation activities.

General QA/QC Plan Requirements c.

The laboratory chosen by the Contractor is to be included in the bid response, be approved by the New York State Department of Health for hazardous waste testing, be acceptable to the NYSDEC and capable of producing NYSDEC CLP level B deliverables, and be acceptable to the TSDFs. The Contractor is also to submit the laboratory's Quality Assurance Program Plan, or similar documentation which outlines the following laboratory protocols:

- complete analytical capabilities.
- data reduction, validation and reporting.
- quality control checks.
- performance and system audits.
- preventive maintenance.
- corrective actions.
- principal personnel resumes.

The QA/OC plan must state that prior to any deviations from the agreed program, the NYSDEC will be notified and the deviation acceptable to the NYSDEC. However, such an acceptance does not limit the full responsibility of the Contractor to meet all requirements of the Contract Documents.

All samples shall be delivered to the laboratory within 24 hours from day of collection.

Acetone is an unacceptable solvent for decontamination of sampling equipment. Pesticide grade methanol or hexane is allowed.

Issue: 10/1/03 Submittals Section 01300

1.6 DAILY CONSTRUCTION REPORTS

- A. Prepare a daily construction report, recording the following information concerning events at the site, and submit duplicate copies to the Engineer at weekly intervals:
 - List of subcontractors at the site.
 - 2. Approximate count of personnel at the site.
 - 3. High and low temperatures, general weather conditions.
 - Accidents and unusual events.
 - Meetings and significant decisions.
 - Stoppages, delays, shortages, losses.
 - 7. Meter readings and similar recordings.
 - Emergency procedures.
 - Orders and requests of governing authorities.
 - Change Orders received, implemented.
 - Services connected, disconnected.
 - 12. Equipment or system tests and start-ups.
 - 13. Partial Completions, occupancies.
 - Substantial Completions authorized.

1.7 SHOP DRAWINGS

A. Submit newly prepared information, drawn to accurate scale. Do not reproduce Contract Documents or copy standard information as the basis of Shop Drawings. Highlight, encircle, or otherwise indicate deviations from the Contract Documents. Standard information prepared without specific reference to the Project is not considered Shop Drawings.

Shop drawings shall be furnished to the Engineer at the Pre-Construction Conference. The following shop drawings are to be submitted:

- a. Electrical Supply and Lighting (Article 00501)
- Water Supply and Use Requirements (Article 00501)
- c. Temporary Site Facilities (Article 00501)
- Decontamination Pads (Article 00501)
- e. Staging Areas for contaminated materials
- f. Construction Dewatering Facility
- g. Temporary Water Treatment System
- Other drawings as requested by the Engineer

1.8 PRODUCT DATA

A. Collect Product Data into a single submittal for each element of construction or system. Product Data includes printed information such as manufacturer's installation instructions, catalog cuts, standard color charts, roughing-in diagrams and templates, standard wiring diagrams and performance curves. Where Product Data must be specially prepared because standard printed data is not suitable for use, submit as "Shop Drawings."

 Issue:
 10/1/03
 Submittals

 Section 01300
 Page 7 of 9

1.9 SAMPLES

A. Submit full-size, fully fabricated Samples cured and finished as specified and physically identical with the material or product proposed. Samples include partial sections of manufactured or fabricated components, cuts or containers of materials, color range sets, and swatches showing color, texture and pattern.

1.10 Other Submittals

- a. Material sources and quantities.
- b. Progress schedule submittals.
- Security logs and tickets.
- d. Written backfill, topsoil, and seeding, certifications
- e. Written authorization from TSDFs.
- f. List of selected TSDFs.
- Waste manifests, bill of lading, Waste characterization forms, TSDF approvals and notifications.
- h. All other submittals as required by the section(s) of these Specifications applicable to the Work being performed or as requested by the Engineer.

1.11 ENGINEER'S ACTION

- A. Except for submittals for record, information or similar purposes, where action and return is required or requested, the Engineer will review each submittal, mark to indicate action taken, and return promptly.
 - 1. Compliance with specified characteristics is the Contractor's responsibility.
- B. Action Stamp: The Engineer will stamp each submittal with a uniform, self-explanatory action stamp. The stamp will be appropriately marked, as follows, to indicate the action taken:
 - Final Unrestricted Release: Where submittals are marked "No Exceptions Taken," that part
 of the Work covered by the submittal may proceed provided it complies with requirements of
 the Contract Documents; final acceptance will depend upon that compliance.
 - Final-But-Restricted Release: When submittals are marked "Make Corrections Noted," that
 part of the Work covered by the submittal may proceed provided it complies with notations
 or corrections on the submittal and requirements of the Contract Documents; final
 acceptance will depend on that compliance.
 - 3. Returned for Resubmittal: When submittal is marked "Revise and Resubmit", "Rejected", or "Submit Specified Item", do not proceed with that part of the Work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Revise or prepare a new submittal in accordance with the notations;-resubmit without delay. Repeat if necessary to obtain a different action mark.
 - a. Do not permit submittals marked "Revise and Resubmit", "Rejected"; or "Submit Specified Item" to be used at the Project site, or elsewhere where Work is in progress.

Riverside Lot 6 Brownfields Restoration

Section 01300 Submittals

4. Other Action: Where a submittal is primarily for information or record purposes, special processing or other activity, the submittal will be returned, marked "Action Not Required".

PART 2 - PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

END OF SECTION 01300

SECTION 01310 HEALTH AND SAFETY PLAN

PART 1 - GENERAL

1.1 SUMMARY

- A. Contractor shall develop and implement a written health and safety program, consistent with the provisions of Subpart 3.1 of this Section, and shall manage Health & Safety controls on the site during all periods of Contractor activities.
- B. Program shall be designed to identify, evaluate, and control health and safety hazards, and provide for emergency response through the use of a written, site-specific Health and Safety Plan that is consistent with the provisions designated in Subpart 3.2 of this Section.
- C. Level D personal protective equipment shall be the minimum level of protection unless changes are otherwise indicated by site monitoring, site reconnaissance, and/or site records. Level C or higher level of protection may be necessary during excavation of contaminated soil and should be addressed in Health and Safety Plan preparation.
- D. Sections include, but are not limited to:
 - 1. SECTION 02011 CONSTRUCTION WATER MANAGEMENT
 - SECTION 02200 MONITOR WELL DECOMMISSIONG
 - SECTION 02220 EXCAVATION DEWATERING
 - SECTION 02221 TRENCHING, PIPE BACKFILLING AND COMPACTION
 - SECTION 02225 WATER PRE-TREATMENT
 - SECTION 02504 EXCAVATION & DISPOSAL OF CONTAMINATED SOILS
 - SECTION 02506 SAMPLING AND ANALYSIS
 - SECTION 02507 MATERIALS HANDLING
 - SECTION 01310A HEALTH AND SAFETY PLAN MINIMUM REQUIREMENTS

1.2 REFERENCES

- A. Occupational Safety and Health Act Regulations, 29 CFR 1910 and 1926.
- B. NYSDOH Community Air Monitoring Plan (CAMP)
- C. NYSDEC TAGM #4031 "Fugitive Dust Suppression & Particulate Monitoring Program at Inactive Hazardous Waste Sites"

1.3 SUBMITTALS

Issue: 3/1/04

- A. The health and safety plan shall be submitted to the Engineer in accordance with SECTION "SUBMITTALS. No work shall commence until the health and safety plan has been reviewed by the Engineer and accepted by the NYSDEC.
- B. The review of the document by the Engineer does not imply compliance with Applicable Codes, Laws and Regulations, and does not relieve the Contractor of responsibility for the development and proper implementation of the Plan

PART 2 - PRODUCTS - (Not Applicable)

Health and Safety Plan Section 01310 Page 1 of 3

PART 3 - EXECUTION

3.1 WRITTEN HEALTH AND SAFETY PROGRAM

- A. Written program shall include the following as per OSHA Standards referenced in Title 29 of the Code of Federal Regulations Part 1910.120(b) [29 CFR 1910.120(b)].
 - 1. An organizational structure [29 CFR 1910.120(b)(2)].
 - 2. A comprehensive work plan [29 CFR 1910.120(b)(3)].
 - A site-specific Health and Safety Plan.
 - 4. A Health and Safety training program.
 - 5. A Medical surveillance program, if deemed necessary by the Health and Safety Plan.
 - Standard operating procedures.
 - 7. Any necessary interface between general program and site-specific activities.

3.2 SITE-SPECIFIC HEALTH AND SAFETY PLAN (HSP)

- A. Written Health and Safety Plan must be consistent with the requirements of 29 CFR 1910.120(b)(4) and 6 NYCRR Part 360-2.18(e) and must meet the following provisions:
 - The Health and Safety Plan must be maintained on-site at all times.
 - The Health and Safety Plan shall address the health and safety hazards of each phase of site operation.
 - The Health and Safety Plan must include requirements and procedures for employee protection and protection of the surrounding community and environment and musty comply with NYSDEC TAGM 4031 "Fugitive Dust Suppression & Particulate Monitoring Program at Inactive Hazardous Waste Sites"
 - 4. The Health and Safety Plan must be introduced to, understood by, and complied with, by all site personnel, to include any subcontractors working in the operations described in the Health and Safety Plan.
 - 5. The effectiveness of the Health and Safety Plan must be evaluated by the Contractor site safety and health supervisor or equivalent personnel. Any deficiencies in the effectiveness of the site Health and Safety Plan shall be corrected by the originator of the Health and Safety Plan.
 - 6. The Contractor shall provide all necessary personal protection equipment and supplies to the representatives of the ENGINEER, NYSDEC, and authorized visitors to the site, and shall control and manage access to the site in accordance with the accepted Health & Safety Plan.
- B. Elements of Health and Safety Plan:
 - 1. Health and safety risk or hazard analysis (i.e. physical or chemical hazard involved, concentration, primary hazard) for each site task or operation referenced in the work plan.
 - 2. Employee training assignments to assure compliance with 29 CFR 1910.120 (e) including identification of the use of 24-Hour (part-time) and 40-Hour (full-time) OSHA trained on-site workers as necessary and appropriate to the Health and Safety Plan.
 - 3. Personal protective level/equipment to be used for each site task or operation [29 CFR 1910.120 (g)] selected as a result of the hazard analysis and consistent with OSHA Permissible Exposure Limits referenced in 29 CFR 1910.1000. This includes the identification of head, eye, ear, face, body, foot, skin, and respiratory protection necessary and the minimum level of protection that should be worn on-site at all times.

Issue: 3/1/04

- 4. Medical surveillance requirements [29 CFR 1910.120 (f)] including the identification of the medical surveillance performed for 24-Hour and 40-Hour OSHA trained workers on-site, medical surveillance required for on-site workers to wear respirators, if necessary, and medical surveillance required should an on-site worker be overexposed.
- 5. Frequency and types of air monitoring (i.e., organic vapor, combustible gas, particulate, radiation), personnel monitoring (i.e. cold/heat, stress), and environmental sampling techniques and instrumentation, including methods of maintenance and calibration of equipment. This section should also list action levels, that when reached on the monitoring equipment will cause operations to cease, and further contingency actions to be taken, in consideration of both project site and project community health and safety issues.
- 6. Site control measures [29 CFR 1910.120 (d)] including the designation of the areas of exclusion, contamination reduction, and support zone, and identification of how site security will be accomplished.
- 7. Decontamination procedures [29 CFR 1910.120 (k)] for on-site personnel and equipment including decontamination procedures to use in the event of an emergency as well as the identification of decontamination station equipment, and solutions.
- 8. Emergency response plan including location of and directions to the nearest hospital, fire & police emergency numbers, and communication procedures, on-site first aid available, acute exposure symptoms of hazards involved, and emergency procedures for injury within work zones, fire, explosion, equipment failure, and chemical exposure.
- Confined space entry procedures, if required, including a description of the permit system, attendant duty system, barricading of space, atmospheric testing requirements, lockout/tagout requirements, and specialized equipment used.
- 10. Spill containment program [29 CFR 1910.120 (j)].
- 11. Line of command on-site (identification of Contractor Health and Safety Supervisor on-site) as well as identification of management, advisors, medical support, fire/rescue support, field team/work party, security, hygienists, and others, if deemed necessary in the HSP.
- C. NYSDEC Health and Safety Plan Minimum Requirements:
- The project–specific Health and Safety Plan shall comply with the minimum requirements set forth in Section 01310A Health and Safety – Minimum Requirements.
- The project–specific Health and Safety Plan shall include a site-specific Health and Safety Plan, as well as a "Community Health and Safety Plan" that shall identify and ameliorate site community health and safety issues. These shall comply with the NYSDOH Community Air Monitoring Plan (generic CAMP), attached to these specifications as Attachment "C," and NYSDEC TAGM 4031 "Fugitive Dust Suppression & Particulate Monitoring Program at Inactive Hazardous Waste Sites". Site monitoring to verify compliance with Air Monitoring requirements will be performed by the CONTRACTOR and independently by the ENGINEER.

END OF SECTION 01310

Issue: 3/1/04 He

SECTION 01310A HEALTH AND SAFETY PLAN- MINIMUM REQUIREMENTS

PART 1 GENERAL

1.1 DESCRIPTION

The CONTRACTOR is responsible and liable for the health and safety of all on-site personnel and off-site community impacted by the remediation.

This section describes the minimum health and safety requirements for this project including the requirements for the development of a written Health and Safety Plan (HASP). All on-site workers must comply with the requirements of the HASP. The CONTRACTOR'S HASP 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 HASP is a required deliverable for this project as per Section 01300, Sub-part 1.5A. The HASP will be reviewed by the NYSDEC (the DEPARTMENT). The CONTRACTOR will resubmit the HASP, addressing all review comments from the DEPARTMENT.

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.

Any discrepancies between this HASP and the specifications shall be resolved in favor of the more stringent requirements as determined by the DEPARTMENT.

1.2 BASIS

Issue: 10/1/03

The Occupational Safety and Health Administration (OSHA) Standards and Regulations contained in Title 29, Code of Federal Regulations, Parts 1910 and 1926 (20 CAR 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 (NOSH, 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 Occupation Safety and Health (NOSH) regarding procedures required to ensure safe operations at abandoned hazardous waste disposal sites.

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 DEPARTMENT'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 DEPARTMENT 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 DEPARTMENT. The cost of work stoppage due to health and safety is the responsibility of the CONTRACTOR under this Contract.

1.3 HEALTH AND SAFETY DEFINITIONS

The following definitions shall apply to the work of this Contract:

- A. Project Personnel: Project personnel include the DEPARTMENT'S On-site Representatives, CONTRACTOR, Subcontractors, and Federal and State Representatives, working or having official business at the Project Site.
- B. Authorized Visitor: Authorized visitors who work for the State of New York shall receive approval to enter the site from the DEPARTMENT. The Safety Officer has primary responsibility on determining who is qualified and may enter the site. The Site Safety Officer will only allow authorized visitors with written proof that they have been medically certified and trained in accordance with 29 CAR 1910.120 to enter the contamination reduction zone and/or exclusion area.
- C. Health and Safety Coordinator (OSC): The OSC shall be a Certified Industrial Hygienist (CIH) or Certified Safety Professional (CSP) retained by the CONTRACTOR. The OSC will be responsible for the development and implementation of the HASP.
- D. Safety Officer (SO): The SO will be the CONTRACTOR's on-site person who will be responsible for the day-to-day implementation and enforcement of the HASP.
- E. Health and Safety Technicians (HST): The HST(s) will be the CONTRACTOR's on-site personnel who will assist the SO in the implementations of the HASP, in particular, with air monitoring in active work areas and maintenance of safety equipment.
- F. Medical Consultant (MC): The MC is a physician retained by the CONTRACTOR who will be responsible for conducting physical exams as specified under the Medical Monitoring Programs in this section.
- G. Project Site: The area designated on the Site Sketch, which includes the Contractor Work Area.
- H. Contractor Work Area: An area of the project site including the Support Zone, access road, staging area, and Exclusion Zone.
- I. 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 specified decontamination procedures in the adjacent Contamination Reduction Zone.
- Staging Areas: Areas within the Exclusion Zone for the temporary staging of contaminated soil and debris.
- K. 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.
- L. 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.

- M. DEPARTMENT's on-site representative: The DEPARTMENT's representative assigned responsibility and authority by the DEPARTMENT for day-to-day field surveillance duties.
- N. Work: Work includes all labor, materials, and other items that are shown, described, or implied in the Contract and includes all extra and additional work and material that may be ordered by the DEPARTMENT.
- O. Monitoring: The use of direct reading field instrumentation to provide information regarding the levels of gases and/or vapor, which are present during remedial action. Monitoring shall be conducted to evaluate employee exposures to toxic materials and hazardous conditions.

1.4 RESPONSIBILITIES

The DEPARTMENT will be responsible for the following:

- A. Reviewing the HASP for the acceptability for its personnel and the impact on the site and human health.
- Reviewing modifications to the HASP.

The CONTRACTOR will be responsible for the following:

The CONTRACTOR will perform all work required by the Contract Documents in a safe and environmentally acceptable manner. The CONTRACTOR will provide for the safety of all project personnel and the community for the duration of the Contract.

The CONTRACTOR shall:

Issue: 10/1/03

- A. Employ an SO who shall be assigned full-time responsibility for all tasks herein described under this HASP. In the event the SO cannot meet his responsibilities, the CONTRACTOR shall be responsible for obtaining the services of an "alternate" SO meeting the minimum requirements and qualifications contained herein. No work will proceed on this project in the absence of an approved SO.
- B. Ensure that all project personnel have obtained the required physical examination prior to and at the termination of work covered by the contract.
- C. Be responsible for the pre-job indoctrination of all project personnel with regard to the HASP and other safety requirements to be observed during work, including but not limited to (a) potential hazards, (b) personal hygiene principles, (c) personal protection equipment, (d) respiratory protection equipment usage and fit testing, and (e) emergency procedures dealing with fire and medical situations.
- D. Be responsible for the implementation of this HASP, and the Emergency Contingency and Response Plan.
- E. Provide and ensure that all project personnel are properly clothed and equipped and that all equipment is kept clean and properly maintained in accordance with the manufacturer's recommendations or replaced as necessary.
- F. Alert appropriate emergency services before starting any hazardous work and provide a copy of the Emergency Contingency Plan to the respective emergency services.

Health & Safety Plan – Minimum Requirements Section 01310A Page 3 of 34

- G. Have sole and complete responsibility of safety conditions for the project, including safety of all persons (including employees).
- H. Be responsible for protecting the project personnel and the general public from hazards due to the exposure, handling, and transport of contaminated materials. Barricades, lanterns, roped-off areas, and proper signs shall be furnished in sufficient amounts and locations to safeguard the project personnel and public at all times.
- I. Ensure all OSHA health and safety requirements are met.
- Maintain a chronological log of all persons entering the project site. It will include organization, date, and time of entry and exit. Each person must sign in and out.

1.5 HEALTH AND SAFETY PLAN

The HASP is a deliverable product of this project. The DEPARTMENT will review and comment on the CONTRACTOR'S HASP. Agreed upon responses to all comments will be incorporated into the final copy of the HASP. The HASP shall govern all work performed for this contract. The HASP shall address, at a minimum, the following items in accordance with 29 CFR 1910.120(I)(2):

- A. Health and Safety Organization.
- B. Site Description and Hazard Assessment.
- C. Training.
- D. Medical Surveillance.
- Work Areas.
- F. Standard Operating Safety Procedures and Engineering Controls.
- G. Personal Protective Equipment (PPE).
- H. Personnel Hygiene and Decontamination
- Equipment Decontamination.
- J. Air Monitoring.
- K. Emergency Equipment/First Aid Requirements.
- L. Emergency Response and Contingency Plan.
- M. Confined-Space Entry Procedures.
- N. Spill Containment Plan.
- O. Heat & Cold Stress.
- P. Record Keeping.

Issue: 10/1/03

Q. Community Protection Plan.

The following sections will describe the requirements of each of the above-listed elements of the HASP.

1.6 HEALTH AND SAFETY ORGANIZATION

The CONTRACTOR shall list in the HASP a safety organization with specific names and responsibilities. At a minimum, the CONTRACTOR shall provide the services of a Health and Safety Coordinator, SO, Health and Safety Technician, and a Medical Consultant.

Health and Safety Coordinator: The CONTRACTOR must retain the services of a Health and Safety Coordinator (OSC). The OSC must be an American Board of Industrial Hygiene (ABI) Certified Industrial Hygienist (CIH) or a Certified Safety Professional (CSP). The OSC must have a minimum of two years experience in hazardous waste site REMEDIATION or related industries and have a working knowledge of federal and state occupational health and safety regulations. The OSC must be familiar with air monitoring techniques and the development of health and safety programs for personnel working in potentially toxic atmospheres.

In addition to meeting the above requirements the OSC will have the following responsibilities:

- A. Responsibility for the overall development and implementation of the HASP.
- B. Responsibility for the initial training of on-site workers with respect to the contents of the HASP.
- C. Availability during normal business hours for consultation by the Safety Officer.
- D. Availability to assist the Safety Officer in follow-up training and if changes in site conditions occur.

<u>Safety Officer</u>: The designated 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 SBA and airline respirators.

In addition to meeting the above qualifications, the SO will be responsible for the following minimum requirements:

- A. Responsibility for the implementation, enforcement, and monitoring of the health and safety plan.
- B. Responsibility for the pre-construction indoctrination and periodic training of all on-site personnel with regard to this safety plan and other safety requirements to be observed during construction, including:
 - Potential hazards.
 - Personal hygiene principles.
 - 3. PPE.
 - Respiratory protection equipment usage and fit testing.
 - 5. Emergency procedures dealing with fire and medical situations.
 - Conduct daily update meetings in regard to health and safety.

- C. Responsibility for alerting the DEPARTMENT's on-site representative prior to the CONTRACTOR starting any particular hazardous work.
- Responsibility for informing project personnel of the New York State Labor Law Section 876 (Right-to-Know Law).
- E. Responsibility for the maintenance of separation of Exclusion Zone (Dirty) from the Support Zone (Clean) areas as described hereafter.

Health and Safety Technicians: 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.

<u>Medical Consultant</u>: The CONTRACTOR is required to retain a Medical Consultant (MC) who is a physician, certified in occupational medicine. The physician shall have experience in the occupational health area and shall be familiar with potential site hazards of remedial action projects. The MC will also be available to provide annual physicals and to provide additional medical evaluations of personnel when necessary.

1.7 SITE DESCRIPTION AND HAZARD ASSESSMENT

The CONTRACTOR shall perform a hazard assessment to provide information to assist in selection of PPE and establish air monitoring guidelines to protect on-site personnel, the environment, and the public. The CONTRACTOR shall provide a general description of the site, its location, past history, previous environmental sampling results, and general background on the conditions present at the site.

- A. <u>Chemical Hazards</u>: A qualitative evaluation of chemical hazards shall be based on the following:
 - Nature of potential contaminants;

Issue: 10/1/03

- Location of potential contaminants at the project site;
- Potential for exposure during site activities; and
- Effects of potential contaminants on human health.
- B. <u>Biological Hazards</u>: A qualitative evaluation of biological hazards consisting of the elements listed for chemical hazards.
- C. <u>Physical Hazards</u>: The CONTRACTOR shall assess the potential for physical hazards affecting personnel during the performance of on-site work.

The CONTRACTOR shall develop a hazard assessment for each site task and operation established in the HASP.

1.8 TRAINING

OSHA Training

The CONTRACTOR is responsible to ensure that all project personnel have been trained in accordance with OSHA 1910.120 regulations.

The CONTRACTOR shall ensure that all employees are informed of the potential hazards of toxic chemicals to the unborn child and of the risks associated with working at the project site.

The CONTRACTOR shall be responsible for, and guarantee that, personnel not successfully completing the required training are not permitted to enter the project site to perform work.

Safety Meetings

The SO will conduct daily safety meetings that will be mandatory for all project personnel. The meetings will provide refresher courses for existing equipment and protocols, and will examine new site conditions as they are encountered.

Additional safety meetings will be held on an as-required basis.

Should any unforeseen or site-peculiar safety-related factor, hazard, or condition become evident during the performance of work at this site, the CONTRACTOR will bring such to the attention of the SO in writing as quickly as possible for resolution. In the interim, the CONTRACTOR will take prudent action to establish and maintain safe working conditions and to safeguard employees, the public, and the environment.

1.9 MEDICAL SURVEILLANCE

The CONTRACTOR shall utilize the services of a Physician to provide the minimum medical examinations and surveillance specified herein. The name of the

Physician and evidence of examination of all CONTRACTOR and Subcontractor on-site personnel shall be kept by the SO.

CONTRACTOR and Subcontractor project personnel involved in this project shall be provided with medical surveillance prior to onset of work. Immediately at the conclusion of this project, and at any time there is suspected excessive exposure to substances that would be medically detectable, all project personnel will be medically monitored. The costs for these medical exams, including state field representatives, (four maximum) are to be borne by the CONTRACTOR.

Physical examinations are required for:

- A. Any and all personnel entering hazardous or transition zones or performing work that required respiratory protection.
- B. All CONTRACTOR personnel on site who are dedicated or may be used for emergency response purposes in the Exclusion Zone.
- C. CONTRACTOR supervisors entering hazardous or transition zones, or on site for more than 16 hours during the length of the contract.

Physical examinations are not required for people making periodic deliveries provided they do not enter hazardous or transition zones.

In accordance with good medical practice, the examining Physician or other appropriate representative of the Physician shall discuss the results of such medical examination with the individual examined. Such discussion shall include an explanation of any medical condition that the Physician believes required further evaluation or treatment and any medical condition which the Physician believes would be adversely affected by such individual's employment at the project site. A written report of such examination shall be transmitted to the individual's private physician upon written request by the individual.

The examining Physician or Physician group shall notify the SO in writing that the individual has received a medical examination and shall advise the SO as to any specific limitations upon such individual's ability to work at the project site that were identified as a result of the examination. Appropriate action shall be taken in light of the advice given pursuant to this subparagraph.

The physical examination shall also include but not be limited to the following minimum requirements:

- A. Complete blood profile;
- Blood chemistry to include: chloride, 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;
- "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.
- 3. Tetanus booster shot (if no inoculation has been received within the last five years); and
- Complete medical history.

1.10 SITE CONTROL

Security

Issue: 10/1/03

Security shall be provided and maintained by the CONTRACTOR as specified in Section 01500, Sub-part 3.4. The gate shall be locked after each day's work is completed.

Health & Safety Plan – Minimum Requirements Section 01310A Page 8 of 34 Security identification, specific to the project site, shall be provided by the CONTRACTOR for all project personnel entering the project site. The CONTRACTOR shall be responsible for and ensure that such identification shall be worn by each individual, visible at all times, while the individual is on the site. Vehicular access to the site, other than to designated parking areas, shall be restricted to authorized vehicles only.

Use of on-site designated parking areas shall be restricted to vehicles of the ENGINEER, ENGINEER's on-site representative, CONTRACTOR, subcontractor, and service personnel assigned to the site and actually on duty but may also be used on short-term basis for authorized visitors.

The CONTRACTOR shall be responsible for maintaining a log of security incidents and visitor access granted. 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.

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.

Site visitors shall not be permitted to enter the hazardous work zone unless approved by the DEPARTMENT with appropriate site access agreement.

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.

Site Control

The CONTRACTOR shall provide the following site control procedures as a minimum:

- · A site map;
- A map showing site work zones;
- · The use of a "buddy system"; and
- Standard operating procedures or safe work practices.

Work Areas

Issue: 10/1/03

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:

- A. 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).
- B. 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.

1.11 STANDARD OPERATING SAFETY PROCEDURES, ENGINEERING CONTROLS

GENERAL STANDARD OPERATING PROCEDURES (SOP'S)

- A. The CONTRACTOR will ensure that all safety equipment and protective clothing is kept clean and well maintained.
- B. All prescription eyeglasses in use on this project will be safety glasses and will be compatible with respirators. No contact lenses shall be allowed on site.
- C. All disposable or reusable gloves worn on the site will be approved by the SO.
- During periods of prolonged respirator usage in contaminated areas, respirator filters will be changed upon breakthrough. Respirator filters will always be changed daily.
- E. 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.
- F. All PPE used on site will be decontaminated or disposed of at the end of the work day. The SO will be responsible for ensuring decontamination of PPE before reuse.
- G. All respirators will be individually assigned and not interchanged between workers without cleaning and sanitizing.
- H. 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.
- I. The CONTRACTOR will ensure that all project personnel shall have vision or corrected vision to at least 20/40 in one eye.
- J. On-site personnel found to be disregarding any provision of this plan will, at the request of the SO, be barred from the project.

- K. Used disposable outerwear such as coveralls, gloves, and boots shall not be reused. Used disposable outerwear will be removed upon leaving the hazardous work zone and will be placed inside disposable containers provided for that purpose. These containers will be stored at the site at the designated staging area and the CONTRACTOR will be responsible for proper disposal of these materials at the completion of the project. This cost shall be borne by the CONTRACTOR.
- Protective coveralls that become torn or badly soiled will be replaced immediately.
- M. Eating, drinking, chewing gum or tobacco, smoking, etc., will be prohibited in the hazardous work zones and neutral zones.
- N. All personnel will thoroughly cleanse their hands, face, and forearms and other exposed areas prior to eating, smoking or drinking.
- O. Workers who have worked in a hazardous work zone will shower at the completion of the day.
- P. All personnel will wash their hands, face, and forearms before using toilet facilities.
- Q. No alcohol, firearms or drugs (without prescriptions) will be allowed on site at any time.
- R. 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.

Engineering Controls - Air Emissions

The CONTRACTOR shall provide all equipment and personnel necessary to monitor and control air emissions.

1.12 PERSONAL PROTECTIVE EQUIPMENT

General

The CONTRACTOR shall provide all project personnel with the necessary safety equipment and protective clothing, taking into consideration the chemical wastes at the site. The CONTRACTOR shall supply the DEPARTMENT'S on-site personnel (average two people for the project duration) with PPE as specified. The DEPARTMENT will require specific manufacturers and styles of PPE, which are detailed in the Safety Equipment Specifications portion of this section. At a minimum, the CONTRACTOR shall supply all project personnel with the following:

- A. Two (2) sets of cotton work clothing to include underwear, socks, work shirts, and work pants. Leather steel-toed work boots, and such other clothing and outer garments as required by weather conditions (e.g., insulated coveralls and winter jacket);
- B. Sufficient disposable coveralls;
- C. One pair splash goggles;

Issue: 10/1/03

Health & Safety Plan - Minimum Requirements Section 01310A Page 11 of 34

- D. Chemical-resistant outer and inner gloves;
- E. Rubber overshoes (to be washed daily);
- F. Hard hat and ear/hearing protection;
- G. One full-face mask with appropriate canisters. The DEPARTMENT will supply their own full-face mask. The CONTRACTOR will supply the appropriate canisters to all on-site project personnel including the DEPARTMENT. The CONTRACTOR shall supply MSA canisters for DEPARTMENT personnel; and
- H. For all project personnel involved with Level B protection, a positive-pressure SBA or in-line air. A 5-minute escape bottle must be included with the in-line air apparatus.

Levels of Protection

The following sections describe the requirements of each level of protection.

A. Level A Protection

- PPE: 1.
 - Supplied-air respirator approved by the Mine Safety and Health Administration (MSHA) a. and NOSH. Respirators may be:
 - Positive-pressure SBA; or
 - Positive-pressure airline respirator (with escape bottle for Immediately Dangerous to Life and Health [IDLH] or potential for IDLH atmosphere).
 - b. Fully encapsulating chemical-resistant suit.
 - c. Coveralls.
 - d. Cotton long underwear.*
 - e. Gloves (inner), chemical-resistant.
 - f. Boots, chemical-resistant, steel toe and shank. (Depending on suit construction, worn over or under suit boot.)
 - Hard hat (under suit).* g.
 - h. Disposal gloves and boot covers (worn over fully encapsulating suit).
 - i. Cooling unit.*

- Two-way radio communications (inherently safe).* j.
- k. Ear/hearing protection.
 - Optional

2. Criteria for Selection:

Meeting any of these criteria warrants use of Level A protection:

- a. The chemical substance has been identified and requires the highest level of protection for skin, eyes, and the respiratory system based on:
 - Measures (or potential for) high concentration of atmospheric vapors, gases, or particulates, or
 - Site operations and work functions involves high potential for splash, immersion, or exposure to unexpected vapors, gases, or particulates of materials highly toxic to the skin.
- Substances with a high degree of hazard to the skin are known or suspected to be present, and skin contact is possible.
- Operations must be conducted in confined, poorly ventilated areas until the absence of substances requiring Level A protection is determined.
- d. Direct readings on field Flame Ionization Detectors (FID) or Photoionization Detectors (PID) and similar instruments indicate high levels of unidentified vapors and gases in the air.

3. Guidance on Selection:

Issue: 10/1/03

a. Fully encapsulating suits are primarily designed to provide a gas- or vapor-tight barrier between the wearer and atmospheric contaminants. Therefore, Level A is generally worn when high concentrations of airborne substances could severely effect the skin. Since Level A requires the use of SBA, the eyes and respiratory system are also more protected.

Until air surveillance data become available to assist in the selection of the appropriate level of protection, the use of Level A may have to be based on indirect evidence of the potential for atmospheric contamination or other means of skin contact with severe skin affecting substances.

Conditions that may require Level A protection include:

- Confined spaces: Enclosed, confined, or poorly ventilated areas are conducive to the buildup of toxic vapors, gases, or particulates. (Explosive or oxygen-deficient atmospheres are also more probable in confined spaces). Confined-space entry does not automatically warrant wearing Level A protection, but should serve as a cue to carefully consider and to justify a lower level of protection.
- Suspected/known highly toxic substances: Various substances that are highly toxic, especially skin absorption, for example, fuming corrosives, cyanide compounds, concentrated pesticides, Department of Transportation Poison "A" materials, suspected carcinogens, and infectious substances may be known or suspected to be involved. Field instruments may not be available to detect or quantify air concentrations of these materials. Until these substances are identified and concentrations measured, maximum protection may be necessary.

Health & Safety Plan – Minimum Requirements Section 01310A Page 13 of 34

- Visible emissions: Visible air emissions from leaking containers or railroad/vehicular tank cars, as well as smoke from chemical fires and others, indicate high potential for concentrations of substances that could be extreme respiratory or skin hazards.
- Job Functions: Initial site entries are generally walk-throughs, in which instruments and visual observations are used to make a preliminary evaluation of the hazards.

In initial site entries, Level A should be worn when:

- There is a probability for exposure to high concentrations of vapors, gases, or particulates; and
- Substances are known or suspected of being extremely toxic directly to the skin or by being absorbed.
- Subsequent entries are to conduct the many activities needed to reduce the
 environmental impact of the incident. Levels of protection for later operations are
 based not only on data obtained from the initial and subsequent environmental
 monitoring, but also on the probability of contamination and ease of
 decontamination.

Examples of situations where Level A has been worn are:

- Excavating of soil to sample buried drums suspected of containing high concentrations of dioxin;
- Entering a cloud of chlorine to repair a valve broken in a railroad accident;
- · Handling and moving drums known to contain oleum; and
- · Responding to accidents involving cyanide, arsenic, and undiluted pesticides.
- b. The fully encapsulating suit provides the highest degree of protection to skin, eyes, and respiratory system if the suit material resists chemicals during the time the suit is worn. While Level A provides maximum protection, all suit material may be rapidly permeated and degraded by certain chemicals from extremely high air concentrations, splashes, or immersion of boots or gloves in concentrated liquids or sludges. These limitations should be recognized when specifying the type of fully encapsulating suit. Whenever possible, the suit material should be matched with the substance it is used to protect against.

B. Level B Protection

- PPE:
- a. Positive-pressure SBA (MSHA/NOSH approved); or
- Positive-pressure air line respirator (with escape bottle for IDLH or potential for IDLH atmosphere) MSHA/NOSH approved;
- Chemical-resistant clothing (overalls and long-sleeved jacket; coveralls or hooded, one- or two-piece chemical-splash suit; disposable chemical-resistant, one-piece suits);

Health & Safety Plan – Minimum Requirements Section 01310A Page 14 of 34

- d. Cotton long underwear;*
- e. Coveralls;
- f. Gloves (outer), chemical-resistant;
- g. Gloves (inner), chemical-resistant;
- Boots (inner), leather work shoe with steel toe and shank;
- Boots (outer), chemical-resistant, (disposable);
- j. Hard hat (face shield*);
- k. 2-way radio communication;* and
- I. Taping between suit and gloves, and suit and boots.
- m. Ear/hearing protection.

*Optional

2. Criteria for Selection:

Any one of the following conditions warrants use of Level B Protection:

- a. The type and atmospheric concentration of toxic substances have been identified and require a high level of respiratory protection, but less skin protection than Level A. These atmospheres would:
 - · Have IDLH concentrations; or
 - Exceed limits of protection afforded by an air-purifying mask; or
 - Contain substances for which air-purifying canisters do not exist or have low removal efficiency; or
 - Contain substances requiring air-supplied equipment, but substances and/or concentrations do not represent a serious skin hazard.
- b. The atmosphere contains less than 19.5% oxygen.
- c. Site operations make it highly unlikely that the work being done will generate high concentrations of vapors, gases or particulates, or splashes of material that will affect the skin of personnel wearing Level B protection.
- Working in confined spaces.
- e. Total atmospheric concentrations, sustained in the breathing zone, of unidentified vapors or gases range from 5 ppm above background to 500 ppm above background as measured by direct reading instruments such as the FID or PID or similar instruments, but vapors and gases are not suspected of containing high levels of chemicals toxic to skin.

Guidance on Selection Criteria:

Level B equipment provides a reasonable degree of protection against splashes and to lower air contaminant concentrations, but a somewhat lower level of protection to skin than Level A. The chemical-resistant clothing required in Level B is available in a wide variety of styles, materials, construction detail, permeability, etc. Taping joints between the gloves, boots and suit, and between hood and respirator reduces the possibility for splash and vapor or gas penetration. These factors all affect the degree of protection afforded. Therefore, the SO should select the most effective chemical-resistant clothing based on the known or anticipated hazards and/or job function. (It is anticipated that Level B protection will not be required under this contract.)

Level B does provide a high level of protection to the respiratory tract. Generally, if SBA is required, Level B clothing rather than a fully encapsulating suit (Level A) is selected based on needing less protection against known or anticipated substances affecting the skin. Level B skin protection is selected by:

- Comparing the concentrations of known or identified substances in air with skin toxicity data;
- Determining the presence of substances that are destructive to or readily absorbed through the skin by liquid splashes, unexpected high levels of gases, vapor or particulates, or other means of direct contact; and
- Assessing the effect of the substance (at its measured air concentrations or splash
 potential) on the small area of the head and neck left unprotected by chemical-resistant
 clothing.

For initial site entry at an open site, Level B protection should protect site personnel, providing the conditions described in selecting Level A are known or judged to be absent.

C. Level C Protection

- 1. PPE
 - a. Full-face, air-purifying, cartridge- or canister-equipped respirator (MSHA/NOSH approved) with cartridges appropriate for the respiratory hazards;
 - b. Chemical-resistant clothing (coveralls, hooded, one-piece or two-piece chemical splash suit; chemical-resistant hood and apron; disposable chemical-resistant coveralls);
 - c. Coveralls;
 - d. Cotton long underwear;*
 - e. Gloves (outer), chemical-resistant;
 - Gloves (inner), chemical-resistant;
 - Boots (inner), leather work shoes with steel toe and shank;
 - Boots (outer), chemical-resistant (disposable);*
 - I. Hard hat (face shield);*
 - Escape SBA of at least 5-minute duration;

- k. 2-way radio communications (inherently safe);* and
- I. Taping between suit and boots, and suit and gloves.
- m. Ear/hearing protection.
 - Optional

Criteria for Selection

Meeting all of these criteria permits use of Level C protection:

- a. Measured air concentrations of identified substances will be reduced by the respirator to, at or below, the substance's Threshold Limit Value (TLV) or appropriate occupational exposure limit and the concentration is within the service limit of the canister.
- Atmospheric contaminant concentrations do not exceed IDLH levels.
- c. Atmospheric contaminants, liquid splashes, or other direct contact will not adversely affect the small area of the skin left unprotected by chemical-resistant clothing.
- d. Job functions do not require SBA.
- e. Total readings register between background and 5 ppm above background as measured by instruments such as the FID or PID.
- f. Oxygen concentrations are not less than 19.5% by volume.
- g. Air will be monitored continuously.
- Guidance on Selection Criteria

Issue: 10/1/03

Level C protection is distinguished from Level B by the equipment used to protect the respiratory system, assuming the same type of chemical-resistant clothing is used. The main selection criterion for Level C is that conditions permit wearing air-purifying devices. The air-purifying device must be a full-face mask (MSHA/NOSH approved) equipped with a cartridge suspended from the chin or on a harness. Cartridges must be able to remove the substances encountered.

A full-face, air-purifying mask can be used only if:

- a. Oxygen content of the atmosphere is at least 19.5% by volume;
- b. Substance(s) is identified and its concentrations(s) measured;
- c. Substance(s) has adequate warning properties;
- d. Individual passes a qualitative fit-test for the mask; and
- e. Appropriate cartridge is used, and its service limits concentration is not exceeded.

An air monitoring program is part of all response operations when atmospheric contamination is known or suspected. It is particularly important that the air be monitored thoroughly when personnel are wearing air-purifying respirators (Level C). Continual surveillance using direct-reading instruments and air sampling is needed to detect any changes in air quality necessitating a higher level of respiratory protection. Total unidentified vapor/gas concentrations exceeding 5 ppm above background require Level B.

D. Level D Protection

1. PPE:

- a. Coveralls, chemical resistant;
- b. Gloves (outer), chemical resistant;
- c. Gloves (inner), chemical resistant;*
- Boots (inner), leather work shoes with steel toe and shank;
- e. Boots (outer), chemical resistant (disposable);*
- f. Hard hat;
- g. Face shield;*
- h. Safety glasses with side shields or chemical splash goggles;* and
- Taping between suit and boots, and suit and gloves.
- j. Ear/hearing protection

* Optional

2. Criteria for Selection:

- a. No atmospheric contaminant is present.
- Direct reading instruments do not indicate any readings above background.
- C. Job functions have been determined not to require respirator protection.

Guidance on Selection Criteria:

Level D protection is distinguished from Level C protection in the requirement for respiratory protection. Level D is used for non-intrusive activities or intrusive activities with continuous air monitoring. It can be worn only in areas where there is no possibility of contact with contamination.

E. Anticipated Levels of Protection

Based on what is known of this site, Level C (during decontamination work) and Level D is the expected level for PPE. This level is suggested and is subject to change as a result of air monitoring or judgement by the SO, who may require an upgrade to a higher level of protection. A respirator shall be immediately available in the event that air monitoring indicates an upgrade to Level C is required. The determination of the proper level of protection for each task shall be the responsibility of the CONTRACTOR. These task specific levels of protection shall be stated in the CONTRACTOR's HASP.

Safety Equipment Specifications

Issue: 10/1/03

Prior to purchasing any equipment or supplies required by this HASP, the CONTRACTOR shall notify the DEPARTMENT of the type, model and manufacturer/supplier of that particular safety equipment he is proposing to use or purchase for use on this project. The specifications for PPE that the CONTRACTOR is to supply to the DEPARTMENT and which differ from the minimum requirements shown below are provided at the end of this section.

Self-Contained Breathing Apparatus

The CONTRACTOR shall provide positive-pressure SBA for possible upgrades in respiratory protection. The CONTRACTOR shall further supply all the SBA for all field personnel for the duration of normal work activities. The units must be a MSHA/NOSH-approved pressure-demand type with a 30-minute service life, manufactured/supplied by Scott, MSA, or other appropriate manufacturers. The CONTRACTOR shall inspect and maintain respirators in accordance with OSHA regulations (29 CAR 1910.13-4) and as recommended by the manufacturer.

Disposable Coveralls

The CONTRACTOR shall provide, as necessary, protective coveralls for all project personnel each day with extra sets provided for authorized visitors. The coveralls shall be of the disposable type made of Tyvek or equivalent material, and shall be manufactured/supplied by Durafab, Koppler, or other appropriate manufacturers. To protect project personnel from exposure to liquids, splash-resistant suits (Saranex suits, from appropriate manufacturers) shall be provided. Ripped suits will be immediately replaced after all decontamination has been completed to the satisfaction of the SO.

Hard Hat

The CONTRACTOR shall provide and maintain one hard hat per person on site (authorized visitors included). The hard hats shall comply with OSHA Health and Safety Standards (29 CAR 1910.135).

Face Shields

The CONTRACTOR shall provide and maintain one face shield per person on site. Face shields shall be of the full face type meeting OSHA Health and Safety Standards (29 CAR 1910.133) with brackets for mounting on hard hats. Hard hats and face shields shall be from the same manufacturer to ensure proper fit, manufactured/supplied by Bullard, Norton, or other appropriate manufacturers.

Work Clothing

Issue: 10/1/03

The CONTRACTOR shall provide a minimum of two sets of work clothing per personnel to allow for changing if contaminated. The work clothing shall include a minimum of underwear, socks, work shirts, work pants, and other clothing as weather conditions dictate. All work clothes shall be put on clean, before entering the site and shall not be kept in same lockers as the workers street clothes. All project personnel shall change to street clothing prior to leaving the site. All contaminated work clothing shall be laundered after each use.

Escape-Type Respirator

The CONTRACTOR shall provide and maintain an adequate number of self-contained breathing escape-type respirators on site. The small self-contained device shall be capable of providing oxygen to the worker while protecting an escaping worker from toxic gases. The respirator shall be made by Scott, MSA, or other appropriate manufacturer. The CONTRACTOR shall inspect and ensure all devices are in working order before issuing to personnel. Employees must be trained to use equipment prior to being allowed to work on site and carry the escape-type respirator with them. An escape-type respirator must be available if positive-pressure SBA are not part of the ensemble worn by workers at the site.

Full Face Organic Vapor Respirator

The CONTRACTOR shall provide and maintain a dedicated air-purifying organic vapor respirator per person working in hazardous work and neutral work zones. The respirator shall be of the full-face canister type with cartridges appropriate for the respiratory hazards. Respirators and cartridges shall be MSHA/NOSH approved, manufactured/supplied by MSA, Scott, or other appropriate manufacturers. The CONTRACTOR shall inspect and maintain respirators and canisters in accordance with OSHA regulations (29 CAR 1910.134) and in accordance with manufacturer's instructions. The CONTRACTOR shall ensure that proper fit testing training and medical surveillance of respirator users is in accordance with OSHA regulations (29 CAR 1910.134).

Gloves (outer)

The CONTRACTOR shall supply the necessary number of gloves per workman in areas where skin contact with hazardous material is possible. Work gloves shall consist of nitrile (NCR) or Neoprene material. Other gloves may be selected if required based on the potential chemical present. Cotton liners will be provided by the CONTRACTOR during cold weather or as needed.

Gloves (inner)

The CONTRACTOR shall supply Latex or equivalent surgical gloves to be worn inside the outer gloves.

Boots (inner)

The CONTRACTOR shall supply one pair of safety shoes or boots per workman and shall be of the safety-toe type meeting the requirements of 29 CAR 1910.136.

Boots (outer)

The CONTRACTOR shall provide and maintain one pair of overshoes for the on-site person entering a hazardous work area. The overshoes shall be constructed of rubber and shall be 12 inches high minimum.

Issue: 10/1/03

PERSONAL PROTECTIVE EQUIPMENT SPECIFICATIONS				
Description	Manufacturer	Model Number	Size	Comments
Tyvek coveralls	Kappler/Abanda	1427/1428	xl/lg	NA
Saranex coveralls	Kappler/Abanda	77427/77428/77434	xl/lg	NA
Sijal acid suit	Chemtex Bata	91522-G	xl/lg	NA
Surgical gloves	Best	7005	xl/lg	NA
Neoprene gloves	Edmont	8-354	xl/lg	NA
Nitrile gloves	Granet	1711	10	NA
Butyl gloves	North	B-161	10	NA
Viton gloves	North	F-124	10/11	NA
Long gauntlet neoprene	Edmont	19-938	xl	NA
Cotton work gloves	North	Grip-N/K511M	men's	or equal
Latex booties	Rainfair	1250-Y	xl	NA
PAPR pesticide cartridges	Racal	AP-3	NA	NA
PAPR asbestos cartridges	Racal	SP-3	NA_	NA
APR organic cartridges	MSA	GMC-H	NA	NA
APR asbestos cartridges	MSA	Туре Н	NA	NA
APR pesticide cartridges	MSA	GMP	NA	NA
APR mercury cartridges	MSA	Mersorb	NA	NA

1.13 PERSONNEL HYGIENE AND DECONTAMINATION

On-Site Hygiene Facility

The CONTRACTOR shall provide a hygiene facility on site. The hygiene facility shall include the following:

- Adequate lighting and heat;
- Areas for changing into and out of work clothing. Work clothing should be stored separately from street clothing;
- Clean and "dirty" locker facilities; and
- Storage area for work clothing, etc.

Portable "Boot Wash" Decontamination Equipment

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. An appropriate detergent such as trisodium phosphate shall be used. The cost of properly disposing all such wash water shall be incorporated in the unit price item for Site Health and Safety.

Personnel Decontamination

The CONTRACTOR shall provide full decontamination facilities at all hazardous zones. Decontamination facilities must be described in detail in the HASP.

Disposal of Spent Clothing and Material

Contaminated clothing, used respirator cartridges and other disposable items will be put into drums/containers for transport and proper disposal in accordance with RCRA requirements. Containers/55-gallon capacity drums shall conform to the requirements of 40 CAR Part 178 for Transportation of Hazardous Materials. The containers/drums containing contaminated PPE and other hazardous material shall be transported by the CONTRACTOR to the staging area. The CONTRACTOR is responsible for the proper container packaging, labeling, transporting, and disposal.

1.14 **EQUIPMENT DECONTAMINATION**

General

Issue: 10/1/03

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 soils and the decontamination of the 28 Metal Stamping Presses, all other contaminated equipment, materials, debris, decontamination water, 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 unit price bid Item for Site Health and Safety.

All vehicles shall be decontaminated in the Contamination Reduction Zone prior to leaving the site, and a decontamination certificate, signed by the Contractor's Health and Safety Officer or his designated representative, shall be provided to the Department representative stating that each piece of equipment has been decontaminated prior to remove from the site. Each statement shall include the following:

- 1. No soil or other material is adhering to the vehicle body, tires or undercarriage.
- 2. The vehicle is not leaking or dripping liquids.
- 3. The contents of the vehicle are covered or completely enclosed so as not to permit potentially fugitive particulate matter to become airborne.

Decontamination shall take place within the designated equipment and materials decontamination area. The decontamination shall consist of degreasing (if required), followed by high-pressure, hot-water cleaning, supplemented by detergents as appropriate. Wash units shall be portable, high-pressure with a self-contained water storage tank and pressurizing system (as required). Each unit shall be capable of heating wash waters to 180 degrees Fahrenheit and providing a nozzle pressure of 150 psi.

Personnel engaged in vehicle decontamination will wear Level C Protective clothing and equipment. If the CONTRACTOR cannot or does not satisfactorily decontaminate his tools or equipment at the completion of the project, the CONTRACTOR will dispose of any equipment which cannot be decontaminated satisfactorily and will bear the cost of such tools and equipment and its disposal without any liability to the DEPARTMENT. At the completion of the project the CONTRACTOR shall completely decontaminate and clean the decontamination area.

Decontamination Station

The CONTRACTOR shall construct a decontamination station as described in Section 02011, Decontamination Station. 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.

Action Levels

Issue: 10/1/03

The CONTRACTOR is responsible for developing level of protection site action levels for organic vapors and/or inorganic species.

The SO, CONTRACTOR, and their personnel will be responsible for implementing, maintaining and enforcing the respirator program.

In addition to these on-site action levels, the following action levels will be established for work area and perimeter monitoring of particulates. If the following levels are attained at half the distance between the work zone and the property line, then work will cease until engineering controls bring levels down to acceptable limits. These levels are general and shall be used as minimum action levels. The CONTRACTOR shall develop site-specific perimeter monitoring action levels based on contaminants found in the work areas.

Parameter	Action Level
Total Particulates	Equal or greater than 150 µg/m³ above background level
Organic Vapors	Greater than 5 ppm above background

1.15 AIR MONITORING PROGRAM

General

The CONTRACTOR shall develop, as part of the HASP, 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.

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: an organic vapor analyzer, photoionizer, and real-time aerosol monitors, depending on work activities and environmental conditions.

The CONTRACTOR's AMP shall include both real-time and documentation air monitoring (personal and air 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.

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.

During the progress of active remedial work, the CONTRACTOR will monitor the quality of the air in and around each active hazardous operation with real-time instrumentation prior to personnel entering these areas. Sampling at the hazardous work site will be conducted on a continuous basis. Any departures from general background will be reported to the SO prior to entering the area. The SO will determine when and if operations should be shut down.

Air monitoring equipment will be operated by personnel trained in the use of the specific equipment provided and will be under the control of the SO. A log of the location, time, type and value of each reading and/or sampling will be maintained. Copies of log sheets will be provided on a daily basis to the DEPARTMENTs on-site representative.

Real-Time Monitoring

Real-time monitoring shall be conducted using the following equipment:

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. Total particulates shall be measured using a real-time aerosol monitor. The instrument shall be calibrated daily according to the procedure in the users manual. The meter shall be capable of measuring dust concentrations down to 0.01 mg/m³. The monitor shall be Miniram model MIEPDM-3, or equal.

Real-time monitoring will be conducted at any excavation or disturbance of contaminated soil or sediments and during demolition work on a continuous basis. This includes real time monitoring for particulates. If the downwind particulate level is 150 micrograms per cubic meter greater than the upwind (background) level, then work must be suspended and engineering controls must be implemented to bring concentrations back down to acceptable levels such as dust suppression techniques.

Real-time monitoring will also be conducted at perimeter locations including an upwind (background) and a downwind location. 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.

If CONTRACTOR-established 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.

Documentation Monitoring

Issue: 10/1/03

Documentation monitoring will be conducted at the perimeter at a minimum of four locations (one upwind and three downwind) for total dust, and volatile organic compounds (VOC's). Documentation monitoring will be conducted only during demolition (dust), soil excavation, staging or removal activities.

- A. Total nuisance dust will be collected using a PVC collection filter and personnel sampling pump and analyzed gravimetrically according to NOSH Method 0500. The Contractor shall take steps to prevent the generation of dust or wind erosion of soils during the removal of soils at the site. Such steps shall include wetting down dry soils before excavation and removal.
- B. Documentation samples will be collected at established perimeter locations. The four locations will be chosen according to site activities and expected wind direction. At the end of the sampling period, meteorological data will be reviewed and one upwind and two downwind samples will be chosen to be analyzed.
- C. The perimeter locations will be established and marked with high visibility paint or flagging at approximately equidistant points around the site. Samples will be collected at a height of 6 feet above ground surface.

- D. Documentation samples will be collected twice a week or at the initiation of a new phase of on-site work. Samples will be collected during the normal work hours when activities are occurring on site.
- E. In addition to perimeter monitoring, documentation samples will be collected on site. Onsite samples will be collected by choosing "high risk" workers to wear appropriate collection media for particulates and VOC's. "High risk" workers are those workers most likely to encounter contamination on a particular task.

Organic vapors will be collected using sorbent tubes and personnel sampling pumps and analyzed according to NIOSH Methods 1501 and 1500.

Community Air Monitoring

The project—specific Health and Safety Plan shall include and comply with the Community Air Monitoring Plan (CAMP), attached to these specifications.

Real-time air monitoring, for particulate levels at the perimeter of the work area is necessary:

A. Particulates shall be continuously monitored upwind, downwind and within the work area at temporary particulate monitoring stations. If the downwind particulate level is 150 ug/m³ greater than the upwind particulate level, then work must be suspended and engineering controls must be implemented to bring concentrations back down to acceptable levels such as dust suppression techniques. All readings must be recorded and be available for Engineer's review.

The CONTRACTOR shall install a meteorological station on site that will be capable of recording, at a minimum, wind velocity and direction.

1.16 EMERGENCY EQUIPMENT AND FIRST AID REQUIREMENTS

Communications

The CONTRACTOR shall provide telephone communication at the site field office. Emergency numbers, such as police, sheriff, fire, ambulance, hospital, NYSDEC, EPA, NYSDOH, and utilities, applicable to this site shall be prominently posted near the telephone. The CONTRACTOR shall establish a signaling system for emergency purposes.

Emergency Eye Wash

The CONTRACTOR shall supply and maintain one portable eyewash facility per active hazardous work zone. The portable eyewash facility shall be manufactured/ supplied by Direct Safety Company, Lab Safety Supply Company, or equal.

Fire Extinguishers

Issue: 10/1/03

The CONTRACTOR shall supply and maintain at least one fire extinguisher in the CONTRACTOR's office and one at each hazardous work zone. The fire extinguisher shall be a 20-pound Class ABC dry fire extinguisher with UL-approval per OSHA Safety and Health Training Standards 29 CAR 1910.157. The fire extinguisher shall be manufactured/supplied by Direct Safety Company, Lab Safety Supply Company, or other appropriate suppliers.

First Aid Kit

The CONTRACTOR shall supply and locate in his project office and at each and every hazardous work zone one 24-unit (minimum size) "industrial" or "Contractor" first aid kit, required by OSHA requirements 29 CAR 1910.151. The first aid kit shall be manufactured/supplied by Norton, Scott, or other appropriate suppliers.

Emergency Inventory

In addition to those items specified elsewhere, the SO will maintain the following inventory of equipment and protective clothing for use at the site in the event of emergencies:

- a. Washable coveralls;
- b. Gloves (outer);
- c. Gloves (inner);
- d. SBA;
- e. Escape SBA (authorized visitor use);
- f. Face shields;
- g. Safety glasses;
- Respirators and appropriate cartridges;
- I. Disposable coveralls;
- Chemical-resistant boots and latex boot covers;
- k. Hard hats:
- Bottled breathing air;
- m. Rain suits; and
- n. Ear protection.

1.17 EMERGENCY RESPONSES/CONTINGENCY PLAN AND PROCEDURES

Daily Work

Issue: 10/1/03

During the progress of work, the CONTRACTOR will monitor the quality of the air in and around each active hazardous operation prior to personnel entering these areas. Sampling shall be conducted on a continuous basis. Based on the air monitoring data, the proper level of protection will be chosen by the SO.

Emergency Vehicle Access

In the event that emergency services vehicles (police, fire, ambulance) need access to a location which is blocked by the working crew operations, those operations (equipment, materials, etc.) will be immediately moved to allow those vehicles access. Emergency crews will be briefed as to site conditions and hazards by the SO. All vehicles and personnel will be decontaminated prior to leaving the site.

The CONTRACTOR shall schedule a site briefing with the local Fire Department at the completion of mobilization to familiarize emergency response personnel with his operations and site layout.

Personal Injury Response Plan

In cases of personal injuries, the injured person or the crew personnel in charge will notify the SO. The SO will assess the seriousness of the injury, give first aid treatment if advisable, consult by telephone with a physician if necessary, and arrange for hospitalization if required. The SO will arrange for an ambulance if required.

If soiled clothing cannot be removed, the injured person will be wrapped in blankets for transportation to the hospital.

Personnel, including unauthorized personnel, having skin contact with chemically contaminated liquids or soils shall be flushed with water after any wet or soiled clothing has been removed.

These personnel should be observed by the SO to ascertain whether there are any symptoms resulting from the exposure. If there is any visible manifestation of exposure such as skin irritation, the project personnel will refer to a consulting physician to determine whether the symptoms were the result of a delayed or acute exposure, a secondary response to exposure such as skin infection, or occupational dermatitis. All episodes of obvious chemical contamination will be reviewed by the SO in order to determine whether changes are needed in work procedures.

Route to the Hospital

The CONTRACTOR shall post in conspicuous places in the Support Zone a map with written directions to the nearest hospital or emergency medical treatment facility.

Fire Service

The CONTRACTOR will make arrangements to take immediate fire fighting and fire protection measures with the local Fire Chief. If there is a fire, the crewmen or their person in charge will immediately call the SO. The SO will immediately call the fire personnel.

The air downwind from any fire or explosion will be monitored immediately in order to protect workers and the nearby community. If personal injuries result from any fire or explosion, the procedures outlined in the Personal Injury Response Plan are to be followed.

Master Telephone List

The attached master telephone list will be completed and prominently posted at the field office. 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.

Emergency Service		Telephone Number		
Fire Department Police Department Ambulance Hospital/Emergency Care Facility Poison Control Center Chemical Emergency Advice (CHEMTREC)		911 911 911 911 (800) 282-3171 (800) 424-9300		
Schenectady County Department of Health		(Work Hours)	(518) 270-2672	
NYSDEC Central Office Remedial Bureau C	(Work Hours) After Hours	(Hotline)	(518) 402-9662 800 - 457-7362	
NYSDEC Region 4 office	(Work Hours)	(100)	(518) 357-2234	
	After Hour	(Hotline)	800 - 457-7362	
New York State Department of Health			(518) 402-7890	

1.18 HEAT STRESS MONITORING

Site personnel who wear protective clothing allow body heat to be accumulated with an elevation of the body temperature. Heat cramps, heat exhaustion, and heat stroke can be experienced, which, if not remedied, can threaten life or health. Therefore, an American Red Cross <u>Standard First Aid</u> book or equivalent will be maintained on site at all times so that the SO and site personnel will be able to recognize symptoms of heat emergencies and be capable of controlling the problem.

When protective clothing is worn, especially Levels A and B, the suggested guidelines for ambient temperature and maximum wearing time per excursion are:

Maximum Wearing Time Per Excursion (Minutes)
15
30
60
90
120
180

One method of measuring the effectiveness of employees' rest-recovery regime is by monitoring the heart rate. The "Brouha guideline" is one such method:

- During a 3-minute period, count the pulse rate for the last 30 seconds of the first minute, the last 30 seconds of the second minute, and the last 30 seconds of the third minute.
- Double the count.

If the recovery pulse rate during the last 30 seconds of the first minute is at 110 beats/minute or less and the deceleration between the first, second, and third minutes is at least 10 beats/minute, the work-recovery regime is acceptable. If the employee's rate is above that specified, a longer rest period is required, accompanied by an increased intake of fluids.

In the case of heat cramps or heat exhaustion, "Gatorade" or its equivalent is suggested as part of the treatment regime. The reason for this type of liquid refreshment is that such beverages will return much-needed electrolytes to the system. Without these electrolytes, body systems cannot function properly, thereby increasing the represented health hazard.

This liquid refreshment will be stored in a cooler at the edge of the decontamination zone in plastic squeeze bottles. The plastic bottles will be marked with individual's names. Disposable cups with lids and straws may be used in place of the squeeze bottles. Prior to drinking within the decontamination zone, the project personnel shall follow the following decontamination procedures:

- A. Personnel shall wash and rinse their outer gloves and remove them.
- Personnel shall remove their hard hats and respirators and place on table.
- C. Personnel shall remove their inner gloves and place them on table.
- D. Personnel shall wash and rinse their face and hands.
- E. Personnel shall carefully remove their personal bottle or cup from the cooler to ensure that their outer clothes do not touch any bottles, cups, etc.
- F. The used bottle or cups will not be returned to the cooler, but will be placed in a receptacle or container to be cleaned or disposed of.
- G. Personnel shall replace their respirators, hard hats, gloves and tape gloves prior to re-entering the hazardous zone.

When personnel are working in situations where the ambient temperatures and humidity are high - and especially in situations where protection Levels A, B, and C are required - the SO must:

- Assure that all employees drink plenty of fluids ("Gatorade" or its equivalent);
- Assure that frequent breaks are scheduled so overheating does not occur; and
- Revise work schedules, when necessary, to take advantage of the cooler parts of the day (i.e., 5:00 a.m. to 1:00 p.m., and 6:00 p.m. to nightfall).

Cold Stress

Whole-body protection shall be provided to all site personnel that have prolonged exposure to cold air. The right kind of protective clothing shall be provided to site personnel to prevent cold stress. The following dry clothing shall be provided by the CONTRACTOR as deemed necessary by the SO:

- · Appropriate underclothing (wool or other);
- Outer coats that repel wind and moisture;
- Face, head, and ear coverings;
- Extra pair of socks;
- Insulated safety boots; and
- Glove liners (wool) or wind- and water-repellant gloves.

The SO will use the equivalent chill temperature when determining the combined cooling effect of wind and low temperatures on exposed skin or when determining clothing insulation requirements.

Site personnel working continuously in the cold are required to warm themselves on a regular basis in the on-site hygiene facility. Warm, sweet drinks will also be provided to site personnel to prevent dehydration. The SO shall follow the work practices and recommendations for cold stress threshold limit values as stated by the 1991-1992 Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices by the American Conference of Governmental Industrial Hygienists or equivalent cold stress prevention methods.

1.19 LOGS, REPORTS AND RECORD KEEPING

Security Log

A daily log of security incidents and visitors granted access to the site will be maintained, as well as a log of all personnel entering and exiting the site.

All approved visitors to the site will be briefed by the SO on safety and security, provided with temporary identification and safety equipment, and escorted throughout their visit. Site visitors will not be permitted to enter a hazardous work zone.

Project site shall be posted, "Warning: Hazardous Work Area, Do Not Enter Unless Authorized," and access restricted by the use of a snow fence or equivalent.

Safety Log

The CONTRACTOR'S SO will maintain a bound safety logbook. The log will include all health and safety matters on site and include, but not be limited to, the following information:

- Date and weather conditions on site;
- A description of the proposed work for the day;
- Times when site personnel arrive and depart;

- Air monitoring data;
- Heat and/or cold stress monitoring;
- Decontamination procedures;
- Type and calibration of air sampling/monitoring equipment used;
- Safety meeting summaries; and
- Accidents.

Emergency Or Accident Report

Any emergency or accident will be reported immediately to the SO. The DEPARTMENT will also be notified. The CONTRACTOR will submit a written report immediately, but no later than 24 hours of its concurrence. The report will include, but not be limited to, the nature of the problem, time, location, areas affected, manner and methods used to control the emergency, sampling and/or monitoring data, impact, if any, to the surrounding community, and corrective actions the CONTRACTOR will institute to minimize future occurrences. All spills will be treated as emergencies.

Daily Work Report

The CONTRACTOR shall maintain a daily work report that summarizes the following:

- Work performed including the number of workers and number and type of equipment used that day,
- Level of protection,
- Air monitoring results,
- Safety-related problems, and
- Corrective actions implemented.

1.20 POSTING REGULATIONS

Issue: 10/1/03

The CONTRACTOR will post signs at the perimeter of the Exclusion Zone that state "Warning, Hazardous Work Area, Do Not Enter Unless Authorized." In addition, a notice directing visitors to sign in will be posted at the project site. Also, the CONTRACTOR will post a sign stating that any questions about the site should be directed to the New York State Department of Environmental Conservation.

Safety regulations and safety reminders will be posted at conspicuous locations throughout the project area. The following safety regulations and safety reminders are at a minimum to be posted around the job site.

SAFETY REGULATIONS

(To be Posted for Project Personnel)

The main safety emphasis is on preventing personal contact with gases, soils, sludge and water. Towards that end, the following rules have been established.

Regulations

- A. Eating on the site is PROHIBITED except in specifically designated areas.
- B. All project personnel on the site must wear clean or new gloves daily.
- C. If you get wet to the skin, you must wash the affected area with soap and water immediately. If clothes in touch with the skin are wet, these must be changed.
- D. You must wash your hands and face before eating, drinking or smoking.
- E. Observe regulations on washing and removing boots before entering the dressing room or a clean area and washing before going home.

Recommendations

- A. Do not smoke with dirty hands; better yet, do not smoke.
- B. Check for any personal habit which could get soil or water into your body.
 Examples: food off your fingers, wiping your face or nose with a dirty hand or running a dirty hand through your hair.
- Check that any regularly worn clothing is clean.
 Examples include: dirty watchbands, neck chains and a dirty liner on your safety helmet.

Safety practices with poisonous chemicals can be summed up with a few words:

Don't breathe in chemical odors and don't touch the water, soil, and sludge.

If you do get dirty or wet, clean up as soon as possible.

SAFETY REMINDER FOR TOXIC CHEMICALS

(Post for Project Personnel)

Issue: 10/1/03

Chemicals can't cause problems unless you breathe them, eat them, or put them on your skin.

Chemicals in Gases, Soils, Sludge, and Water

Don't let them go into your mouth, nose, or stay on your skin.

Use common personal hygiene.

- A. Don't eat or drink on the site.
- B. No smoking in the area of work.
- C. Wear protective clothing.
- D. Glove liners must be clean.
- E. Wash your hands whenever practical. Wash before eating, drinking, or smoking.
- F. Don't carry chemicals home to your family. (For example, on clothing, mud in the car, dirty hands.)
- G. Follow strictly the HASP.

1.21 COMMUNITY PROTECTION

General

The CONTRACTOR shall develop, as part of this HASP, a Community Protection Plan (CPP). The CPP shall outline those steps which the CONTRACTOR will implement to protect the health and safety of surrounding human population and the environment including community air monitoring (particulates, VOC's) and a Vapor Emission Response Plan.

Off-site Spill Response Plan

The CONTRACTOR shall produce 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 arrangements for cleanup and decontamination measures. 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.

END OF SECTION 01310A

Issue: 10/1/03

SECTION 01400 QUALITY CONTROL SERVICES

PART 1 – GENERAL 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division-1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. The Contractor shall employ the services of an independent testing laboratory to perform testing services for the duration of the work as specified herein.
- B. This Section specifies administrative and procedural requirements for quality control services.
- C. Quality control services include, but are not limited to, inspections and tests and related actions including reports, performed by independent agencies, governing authorities, and the Contractor. They do not include Contract enforcement activities performed by the Engineer.
- D. Inspection and testing services are required to verify compliance with requirements specified or indicated. These services do not relieve the Contractor of responsibility for compliance with Contract Document requirements.
- E. Requirements of this Section relate to customized fabrication, installation procedures, prequalification testing, in-place density testing, and periodic testing of construction materials, not production of standard products.
 - Specific quality control requirements for individual construction activities are specified in the Sections that specify those activities. Those requirements include prequalification tests and inspections and tests of installed products as well as customized fabrication and installation procedures.
 - 2. Inspections, tests and related actions specified are not intended to limit the Contractor's quality control procedures that facilitate compliance with Contract Document requirements.
 - 3. Requirements for the Contractor to provide quality control services required by the Engineer, Owner, or authorities having jurisdiction are not limited by provisions of this Section.

1.3 RESPONSIBILITIES

Issue: 10/1/03

- A. Contractor Responsibilities: The Contractor shall provide inspections, tests and similar quality control services, specified in individual Specification Sections and required by governing authorities, or as directed by the Engineer; these services include those specified to be performed by an independent inspection or testing agency and not by the Contractor. No additional payment for these services will be made and the cost of inspections and testing shall be incorporated into the unit price bid.
 - 1. The Contractor shall employ and pay an independent agency, to perform specified quality control services.
 - a. Employment of testing laboratory shall in no way relieve Contractor of obligation to perform Work in accordance with requirements of Contract Documents.

Quality Control Services Section 01400 Page 1 of 4

- b. The selection of an independent testing laboratory is subject to approval of the Engineer and the Owner.
- c. One (1) independent testing laboratory shall be used to provide all services specified herein for each: Earthwork and Environmental Analytical Chemistry. That is, one (1) earth materials laboratory and one (1) environmental analytical chemistry laboratory.
- Retesting: The Contractor is responsible for retesting where results of required inspections, tests or similar services prove unsatisfactory and do not indicate compliance with Contract Document requirements.
 - a. Cost of retesting construction revised or replaced by the Contractor, where required tests were performed on original construction, is the Contractor's responsibility.
 - b. Retesting shall be performed at no additional cost to the Owner.
 - 3.Associated Services: The Contractor shall cooperate with agencies performing required inspections, tests and similar services and provide reasonable auxiliary services as requested. Notify the agency sufficiently in advance of operations to permit assignment of personnel. Auxiliary services required include but are not limited to:
 - a. Providing access to the Work and furnishing incidental labor and facilities necessary to facilitate inspections and tests.
 - b. Taking adequate quantities of representative samples of materials that require testing or assisting the agency in taking samples.
 - c. Providing facilities for storage and curing of test samples, and delivery of samples to testing laboratories.
 - d. Providing the agency with a preliminary design mix proposed for use for materials mixes that require control by the testing agency.
 - Security and protection of samples and test equipment at the Project site.
- B. Testing Agency Responsibility: The independent testing agency engaged to perform inspections, sampling and testing of materials and construction specified in individual Specification Sections shall cooperate with the Engineer and Contractor in performance of its duties, and shall provide qualified personnel to perform required inspections and tests.
 - Provide qualified personnel at site after due notice; cooperate with Engineer and Contractor in performance of services.
 - Perform specified inspection, sampling, and testing of products in accordance with specified standards. Field testing locations and methods shall be subject to approval by the Engineer.
 - Ascertain compliance of materials and mixes with requirements of Contract Documents.
 - Promptly notify Engineer and Contractor of observed irregularities or nonconformance of Work or products.

Quality Control Services Section 01400 Page 2 of 4

- 5. Perform additional inspections and tests required by Engineer.
- 6. Attend preconstruction conferences and progress meetings, as required and requested.
- C. Limits on Testing Agency Authority
 - Laboratory may not release, revoke, alter, or enlarge on requirements of Contract Documents.
 - 2. Laboratory may not approve or accept any portion of the Work.
 - Laboratory may not assume any duties of Contractor.
 - 4. Laboratory has no authority to stop Work.

1.4 SUBMITTALS

- A. Prior to start of Work, submit testing laboratory name, address and telephone number, and name of responsible officer.
- B. The independent testing agency shall submit a certified written report of each inspection, test or similar service, directly to Engineer with copy to Contractor.
 - 1. Submit additional copies of each written report directly to the governing authority, when the authority so directs.
 - 2. Report Data: Written reports of each inspection, test or similar sen/ice shall include, but not be limited to:
 - Date of issue.
 - b. Project title and number.
 - c. Name, address and telephone number of testing agency.
 - d. Dates and locations of samples and tests or inspections.
 - e. Names of individuals making the inspection or test.
 - Designation of the Work and test method.
 - Identification of product and Specification Section.
 - h. Complete inspection or test data, including raw data, work sheets, etc.
 - Test results and an interpretations of test results.
 - j. Ambient conditions at the time of sample-taking and testing.
 - Comments or professional opinion as to whether inspected or tested Work complies with Contract Document requirements.
 - Name and signature of laboratory inspector.
 - m. Recommendations on retesting.

1.5 QUALITY ASSURANCE

Issue: 10/1/03

- A. Reference Standards and Regulations: comply with applicable provisions and recommendations for the following, except as otherwise shown or specified.
 - American Society for Testing and Materials (ASTM)
 - 2. NYSDEC TAGM 4046, and others as applicable
 - NYSDEC STARS Memo #1

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.1 REPAIR AND PROTECTION

- A. General: Upon completion of inspection, testing, sample-taking and similar services, repair damaged construction and restore substrates and finishes to eliminate deficiencies.
- B. Protect construction exposed by, or for, quality control service activities and protect repaired construction.
- C. Repair and protection is the Contractor's responsibility, regardless of the assignment of responsibility for inspection, testing or similar services.

3.2 PERFORMANCE OF TESTS AND INSPECTIONS

- A. Tests, inspections and Quality Control Services are specified in each Section and the responsibilities of the Contractor are noted.
- B. No direct compensation will be made for tests, inspections or Quality Control Services as required by the Contract Documents.

END OF SECTION 01400

Issue: 10/1/03

Quality Control Services Section 01400

Page 4 of 4

SECTION 01500 TEMPORARY FACILITIES & EQUIPMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division-1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section specifies requirements for temporary services and facilities, including utilities, construction and support facilities, security and protection.
- B. Temporary utilities required include, but are not limited to:
 - Temporary electric power
- C. Temporary construction and support facilities required include, but are not limited to:
 - Temporary on-site roadways
 - 2. Sanitary facilities, including drinking water.
 - Dewatering facilities and drains.
 - Waste disposal services.
 - Construction aids and miscellaneous services and facilities.
 - 6. Engineer's Equipment
- D. Security and protection facilities required include, but are not limited to:
 - Temporary fire protection.
 - Barricades, warning signs, lights.
 - Environmental protection.

1.3 SUBMITTALS

Issue: 10/1/03

- A. Temporary Utilities: Submit reports of tests, inspections, and similar procedures performed on temporary utilities.
- B. Implementation and Termination Schedule: Submit a schedule indicating implementation of each temporary utility within 5 days of the date established for commencement of the Work.

1.4 QUALITY ASSURANCE

- A. Regulations: Comply with industry standards and applicable laws and regulations of authorities having jurisdiction, including but not limited; to:
 - Building Code requirements.
 - Health and safety regulations.
 - Utility company regulations.
 - Police, Fire Department and Rescue Squad rules.
 - City of Schenectady DEPW and POTW requirements.
 - Environmental protection regulations.

Temporary Facilities & Equipment Section 01500

- B. Standards: Comply with NFPA Code 241, "Building Construction and Demolition Operations", ANSI-A10 Series standards for "Safety Requirements for Construction and Demolition," and NECA Electrical Design Library "Temporary Electrical Facilities."
 - 1. Refer to "Guidelines for Bid Conditions for Temporary Job Utilities and Services", prepared jointly by AGC and ASC, for industry recommendations.
- C. Electrical Services: Comply with NEMA, NECA, and UL standards and regulations for temporary electric service. Install service in compliance with National Electric Code (NFPA 70).
- D. Inspections: Arrange for authorities having jurisdiction to inspect and test each temporary utility before use. Obtain required certifications and permits.

1.5 PROJECT CONDITIONS

A. Conditions of Use: Keep temporary services and facilities clean and neat in appearance. Operate in a safe and efficient manner. Take necessary fire prevention measures. Do not overload facilities, or permit them to interfere with progress. Do not allow hazardous dangerous or unsanitary conditions, or public nuisances to develop or persist on the site.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. General: Provide new materials; if acceptable to the Engineer, undamaged previously used materials in serviceable condition may be used. Provide materials suitable for the use intended.
- B. Lumber and Plywood.
 - 1. For job-built temporary offices, shops and sheds within the construction area, provide UL labeled, fire treated lumber and plywood for framing, sheathing and siding.
 - 2. For signs and directory boards, provide exterior type, Grade B-B High Density Concrete Form Overlay Plywood conforming to PS-1, of sizes and thickness indicated.
 - For fences and vision barriers, provide exterior type, minimum 3/8" thick plywood.
 - 4. For safety barriers, sidewalk bridges and similar uses, provide minimum 5/8" thick exterior plywood.

C. Paint:

Issue: 10/1/03

- For job-built temporary offices, shops, sheds, fences and other exposed lumber and plywood, provide exterior grade acrylic-latex emulsion over exterior primer.
- 2. For sign panels and applying graphics, provide exterior grade alkyd gloss enamel over exterior primer.
- For interior walls of temporary offices, provide two coats interior latex flat wall paint.

Temporary Facilities & Equipment Section 01500

- D. Tarpaulins: Provide waterproof, fire-resistant, UL labeled tarpaulins with flame-spread rating of 15 or less. For temporary enclosures provide translucent nylon reinforced laminated polyethylene or polyvinyl chloride fire retardant tarpaulins.
- E. Water: Provide potable water approved by local health authorities.

2.2 EQUIPMENT

- A. General: Provide new equipment; suitable for use intended.
- B. Lamps and Light Fixtures: Provide general service incandescent lamps of wattage required for adequate illumination. Provide guard cages or tempered glass enclosures, where exposed to breakage. Provide exterior fixtures where exposed to-moisture for field office or work station.
- C. Heating Units: Provide temporary heating units that have been tested and labeled by UL, FM or another recognized trade association related to the type of fuel being consumed, as required by seasonal conditions.
- D. Temporary Offices: Provide prefabricated or mobile units with lockable entrances, and serviceable finishes. Provide heated and air-conditioned units on foundations adequate for normal loading as required by seasonal conditions.
- E. Temporary Toilet Units: Provide self-contained single-occupant toilet units of the chemical, aerated recirculation, or combustion type, properly vented and fully enclosed with a glass fiber reinforced polyester shell or similar nonabsorbent material.
- F. First Aid Supplies: Comply with governing regulations.
- G. Fire Extinguishers: Provide hand-carried, portable UL-rated, class "A" fire extinguishers for temporary offices and similar spaces. In other locations provide hand-carried, portable, UL-rated, class "ABC" dry chemical extinguishers, or a combination of extinguishers of NFPA recommended classes for the exposures. Comply with NFPA 10 and 241 for classification, extinguishing agent and size required by location and class of fire exposure.

H. Engineer's Equipment:

General Requirements for all Engineer's Equipment:

The Contractor shall purchase and supply the following for the Engineers or Owner's representative's use during the duration of the work:

- One field Photo Ionization Detector (PID), MiniRAE 2000 Model PGM-7600 Kit (includes PID plus calibration equipment, tools and case), and accessory extra battery pack and automatic charger.
- One (1) 200 ft. nylon engineers/surveyors tape measure and reel.
- Soil sampling and monitoring supplies, including nitrile PPE gloves, both Large and Extra Large sizes, 1-gallon "Ziplock" plastic sample screening bags, clean wooden sampling spatulas.
- 4. First Aid Kit: The Contractor shall keep the kit properly stocked with appropriate first aid supplies at all times.

Temporary Facilities & Equipment Section 01500 Page 3 of 6 5. Maintenance: The Contractor shall maintain all furnished equipment in good working condition and sufficient quantities of expendable supplies.

All supplied Engineers Equipment will be the property of the Owner upon project Substantial Completion.

PART 3 - EXECUTION

3.1 INSTALLATION

Issue: 10/1/03

- A. Use qualified personnel for installation of temporary facilities. Locate facilities where they will serve the Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required.
- B. Provide each facility ready for use when needed to avoid delay. Maintain and modify as required. Do not remove until facilities are no longer needed, or are replaced by authorized use of completed permanent facilities.

3.2 TEMPORARY UTILITY INSTALLATION

- A. General: Engage-the appropriate local utility company to install temporary service or connect to existing service. Where the company provides only part of the service, provide the remainder with matching, compatible materials and equipment; comply with the company's recommendations.
 - 1. Arrange with the utility company and existing users for a time when service can be interrupted, where necessary, to make connections for temporary services.
 - 2. Provide adequate capacity at each stage of construction. Prior to temporary utility availability, provide trucked-in services.
 - 3. Obtain easements to bring temporary utilities to the site, where the Owner's easements cannot be used for that purpose.
 - 4. Use Charges: Cost or use charges for temporary facilities are not chargeable to the Owner or Engineer, and will not be accepted as a basis of claims for a Change Order.
- B. Water Service: Install water service and distribution piping of sizes and pressures adequate for construction.
 - 1. Sterilization: Sterilize temporary water piping prior to use.
- C. Sewers and Drainage: If sewers are available, provide temporary connections to remove effluent that can be discharged lawfully. If sewers are not available or cannot be used, provide drainage ditches, dry wells, stabilization ponds and similar facilities. If neither sewers nor drainage facilities can be lawfully used for discharge of effluent, provide containers to remove and dispose of effluent off the site in a lawful manner.
 - 1. Filter out soil, construction debris, chemicals, oils and similar contaminants that might clog sewers or pollute waterways before discharge.

Temporary Facilities & Equipment Section 01500 Page 4 of 6

- 2. Maintain temporary sewers and drainage facilities in a clean, sanitary condition. Following heavy use, restore normal conditions promptly.
- D. Provide earthen embankments and similar barriers in and around excavations and subgrade construction, sufficient to prevent flooding by runoff of storm water from heavy rains.

3.3 TEMPORARY CONSTRUCTION AND SUPPORT FACILITIES INSTALLATION

- A. Locate field offices, storage sheds, sanitary facilities and other temporary construction and support facilities for easy access.
 - Maintain temporary construction and support facilities until near Substantial Completion.
 Remove prior to Substantial Completion all facilities not needed by personnel remaining after Substantial Completion.
- B. Provide incombustible construction for offices, shops and sheds located within the construction area, or within 30 feet of building lines. Comply with requirements of NFPA 241.
- C. Sanitary facilities include temporary toilets, wash facilities and drinking water fixtures. Comply with regulations and health codes for the type, number, location, operation and maintenance of fixtures and facilities. Install where facilities will best serve the Project's needs.
 - 1. Provide toilet tissue, paper towels, paper cups and similar disposable materials for each facility. Provide covered waste containers for used material.
- D. Toilets: Install self-contained toilet units. Shield toilets to ensure privacy. Use of pit-type privies will not be permitted.
- H. Wash Facilities: Install wash facilities supplied with potable water at convenient locations for personnel involved in handling materials that require wash-up for a healthy and sanitary condition. Dispose of drainage properly. Supply cleaning compounds appropriate for each condition.
- E. Drinking Water Facilities: Provide containerized tap-dispenser bottled-water type drinking water units, including paper supply.
- F. Dewatering Facilities and Drains: For temporary drainage and dewatering facilities and operations not directly associated with construction activities included under individual Sections, comply with dewatering requirements of applicable Division-2 Sections. Where feasible, utilize the same facilities. Maintain the site, excavations and construction free of water.
- G. Collection and Disposal of Waste: Collect waste from construction areas and elsewhere daily. Comply with requirements of NFPA 241 for removal of combustible waste material and debris. Enforce requirements strictly. Do not hold materials more than 7 days during normal weather or 3 days when the temperature is expected to rise above 80° F (27° C). Handle hazardous, dangerous, or unsanitary waste materials separately from other waste by containerizing properly. Dispose of material in a lawful manner. Burning is not permitted.

3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION

Issue: 10/1/03

A. Do not change over from use of temporary security and protection facilities to permanent facilities until Substantial Completion, or longer as requested by the Engineer.

Temporary Facilities & Equipment Section 01500 Page 5 of 6

- B. Temporary Fire Protection: Until fire protection needs are supplied by permanent facilities, install and maintain temporary fire protection facilities of the types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 10 "Standard for Portable Fire Extinguishers," and NFPA 241 "Standard for Safeguarding Construction, Alterations and Demolition Operations."
 - Locate fire extinguishers where convenient and effective for their intended purpose.
 - 2. Store combustible materials in containers in fire-safe locations.
 - Maintain unobstructed access to fire extinguishers, fire hydrants, temporary fire protection facilities, and other access routes for fighting fires. Prohibit smoking in hazardous fire exposure areas.
 - Provide supervision of welding, operations, combustion type temporary heating units, and similar sources of fire ignition.
- C. Barricades, Warning Signs and Lights: Comply with standards and code requirements for erection of structurally adequate barricades. Paint with appropriate colors, graphics and warning signs to inform personnel and the public of the hazard being protected against. Where appropriate and needed provide lighting, including flashing red or amber lights.
- D. Environmental Protection: Provide protection, operate temporary facilities and conduct construction in ways and by methods that comply with environmental regulations, and minimize the possibility that air, waterways and subsoil might be contaminated or polluted, or that other undesirable effects might result. Avoid use of tools and equipment which produce harmful noise. Restrict use of noise making tools and equipment to hours that will minimize complaints from persons or firms near the site.
- 3.5 OPERATION, TERMINATION AND REMOVAL
 - A. Supervision: Enforce strict discipline in use of temporary facilities. Limit availability of temporary facilities to essential and intended uses to minimize waste and abuse.
 - B. Maintenance: Maintain facilities in good operating condition until removal. Protect from damage by freezing temperatures and similar elements.
 - 1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation and similar facilities on a 24-hour day basis where required to achieve indicated results and to avoid possibility of damage.
 - 2. Protection: Prevent water filled piping from freezing. Maintain markers for underground utilities and lines. Protect from damage during excavation operations.
 - C. Termination and Removal: Unless the Engineer requests that it be maintained longer, remove each temporary facility when the need has ended, or when replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with the temporary facility. Repair damaged Work, clean exposed surfaces and replace construction that cannot be satisfactorily repaired.
 - 1. Materials and facilities that constitute temporary facilities are property of the Contractor. The Owner reserves the right to take possession of Project identification signs.

END OF SECTION 01500

Issue: 10/1/03

Temporary Facilities & Equipment Section 01500 Page 6 of 6

SECTION 01561 NUISANCE CONTROL

PART 1 – GENERAL

1.1 DESCRIPTION

- A. Nuisance conditions of dust and miscellaneous debris resulting from the Contractor's operations shall be corrected by the Contractor.
- B. The Contractor shall keep the work zone surfaces and haul routes clean at all times. Specifically, trucks "hauling" on or off the site shall not have the loads heaped above the box, and loads shall be covered to prevent material from spilling along the haul routes. Haul routes shall be cleaned anytime material is spilled, and as required by the Engineer. All hauling is to comply with the requirements of all NYSDEC, NYSDOT, or other authorizing agency.
- C. Prior to the end of each work day the Contractor shall inspect all roads and work zone surfaces to verify clean conditions and shall perform any necessary clean-up actions prior to the end of the work day.

PART 2 - PRODUCTS

- 2.1 MATERIALS (For exterior use only)
 - A. Water
- PART 3 EXECUTION
- 3.1 METHOD
 - A. Water used as a dust palliative shall be distributed uniformly over a minimum width of eight (8) feet by the use of suitable spray heads or spray bar. This applies to the area within the project limits.
 - B. The Contractor shall keep all areas of work reasonably free from dust and debris spillage as directed by the Engineer. Action levels shall be levels in excess of 0.15 mg/m³ as indicated at the perimeter of the project, and in accord with NYSDOH community air monitoring plans (CAMP Attachment C) and procedures (NYSDEC TAGM #4031).
 - C. The cost of this work shall not be measured or paid for directly, but shall be included in the various contract items.

END OF SECTION 01561

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division-1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements for project closeout, including but not limited to:
 - Inspection procedures.
 - Identification of all test locations and laboratory determinations
 - Project record document submittal.
 - 4. Operating and maintenance manual submittal.
 - Submittal of warranties.
 - Final cleaning.
- B. Closeout requirements for specific construction activities are included in the appropriate Sections in Division-2 through Division-16.

1.3 SUBSTANTIAL COMPLETION

- A. Preliminary Procedures: Before requesting inspection for certification of Substantial Completion, complete the following. List exceptions in the request.
 - 1. In the Application for Payment that coincides with, or first follows, the date Substantial Completion is claimed, show 100 percent completion for the portion of the Work claimed as substantially complete. Include supporting documentation for completion as indicated in these Contract Documents and a statement showing an accounting of changes to the Contract Sum.
 - a. If 100 percent completion cannot be shown, include a list of incomplete items, the value of incomplete construction, and reasons the Work is not complete.
 - 2. Advise Owner of pending insurance change-over requirements.
 - 3. Submit specific warranties, workmanship bonds, maintenance agreements, final certifications and similar documents.
 - 4. Obtain and submit releases enabling the Owner unrestricted use of the Work and access to services and utilities; include occupancy permits, operating certificates and similar releases.
 - 5. Submit record drawings, maintenance manuals, final project photographs, damage or settlement survey, property survey, and similar final record information.
- B. Inspection Procedures: On receipt of a request for inspection, and notification that the Work is substantially complete, the Engineer will either proceed with inspection or advise the Contractor of unfilled requirements. The Engineer will prepare the Certificate of Substantial Completion following

Issue: 10/1/03 Closeout Section 01700 Page 1 of 4

inspection, or advise the Contractor of construction that must be completed or corrected before the certificate will be issued.

- 1. The Engineer will repeat inspection when requested and assured that the Work has been substantially completed.
- 2. Results of the completed inspection will form the basis of requirements for final acceptance.

1.4 FINAL ACCEPTANCE

- A. Preliminary Procedures: Before requesting final inspection for certification of final acceptance and final payment, complete the following. List exceptions in the request.
 - 1. Submit the final payment request with releases and supporting documentation not previously submitted and accepted. Include certificates of insurance for products and completed operations where required.
 - 2. Submit an updated final statement, accounting for final additional changes to the Contract Sum.
 - 3. Submit a certified copy of the Engineer's inspection list of items to be completed or corrected, stating that each item has been completed or otherwise resolved for acceptance, and the list has been endorsed and dated by the Engineer.
 - Submit final meter readings of utilities, a measured record of stored fuel, and similar data as of the date of Substantial Completion or when the Owner took possession of and responsibility for corresponding elements of the Work.
 - 5. Submit consent of surety to final payment.
 - 6. Submit a final liquidated damages settlement statement.
 - 7. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
 - 8. Submit Record Documents.
- B. Reinspection Procedure: The Engineer will reinspect the Work upon receipt of notice that the Work, including inspection list items from earlier inspections, has been completed, except items whose completion has been delayed because of circumstances acceptable to the Engineer.
 - Upon completion of reinspection, the Engineer will prepare a certificate of final acceptance, 1. or advise the Contractor of Work that is incomplete or of obligations that have not been fulfilled but are required for final acceptance.
 - 2. If necessary, reinspection will be repeated.

1.5 RECORD DOCUMENT SUBMITTALS

A. General: Do not use record documents for construction purposes; protect from deterioration and loss in a secure, fire-resistive location; provide access to record documents for the Engineer's reference during normal working hours.

Issue: 10/1/03 Closeout Section 01700

- B. Record Drawings: Maintain a clean, undamaged set of blue or black line white-prints of Contract Drawings and Shop Drawings. Mark the set to show the actual installation where the installation varies from the Work as originally shown. Mark whichever drawing is most capable of showing conditions fully and accurately; where Shop Drawings are used, record a cross-reference at the corresponding location on the Contract Drawings. Give particular attention to concealed elements that would be difficult to measure and record at a later date.
 - Mark record sets with red erasable pencil; use other colors to distinguish between variations in separate categories of the Work.
 - 2. Mark new information that is important to the Owner, but was not shown on Contract Drawings or Shop Drawings.
 - 3. Note related Change Order numbers where applicable.
 - 4. Organize record drawing sheets into manageable sets, bind with durable paper cover sheets, and print suitable titles, dates and other identification on the cover of each set.
- Record Survey: Complete a record survey of the site showing as-built topography, final limit of excavation and sol removal and backfill, and other significant features. Include bench mark on drawings.
- D. Record Specifications: Maintain one complete copy of the Project Manual, including addenda, and one copy of other written construction documents such as Change Orders and modifications issued in printed form during construction. Mark these documents to show variations in actual Work performed in comparison with the text of the Specifications and modifications. Give particular attention to substitutions, selection of options and similar information on elements that are concealed or cannot otherwise be readily discerned later by direct observation. Note related record drawing information and Product Data.
 - Upon completion of the Work, submit record Specifications to the Engineer for the Owner's 1. records.
- E. Record Product Data: Maintain one copy of each Product Data submittal. Mark these documents to show variations in actual Work performed in comparison with information submitted. Include variations in products delivered to the site, and from the manufacturer's installation instructions and recommendations. Give particular attention to concealed products and portions of the Work which cannot otherwise be readily discerned later by direct observation. Note related Change Orders and mark-up of record drawings and Specifications.
 - Upon completion of mark-up, submit complete set of record Product Data to the Engineer for the Owner's records.
- F. Record Sample Submitted: Immediately prior to the date or dates of Substantial Completion, the Contractor will meet at the site with the Engineer and the Owner's personnel to determine which of the submitted Samples that have been maintained during progress of the Work are to be transmitted to the Owner for record purposes. Comply with delivery to the Owner's Sample storage area.
- G. Miscellaneous Record Submittals: Refer to other Specification Sections for requirements of miscellaneous record-keeping and submittals in connection with actual performance of the Work. Immediately prior to the date or dates of Substantial Completion, complete miscellaneous records and place in good order, properly identified and bound or filed, ready for continued use and reference. Submit to the Engineer for the Owner's records, including but not limited to the following:

Issue: 10/1/03 Closeout Section 01700

- a. Updated submittals register and listings of all plans, product data, catalog cuts, shop drawings, samples, test results and other information submitted to the Engineer during the course of the project.
- b.Logs and reports specified in previous sections.
- c. Original laboratory test data including log books, instrument outputs, and calculations. Level B Deliverables are required for post construction and verification soil samples only.
- Weigh tickets and manifests.
- PART 2 PRODUCTS (Not Applicable)

PART 3- EXECUTION

- 3.1 CLOSEOUT PROCEDURES (Not Used)
- 3.2 FINAL CLEANING
 - A. General: General cleaning during construction is required by the General Conditions and included in Section "Temporary Facilities".
 - B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to the condition expected in a normal, commercial building cleaning and maintenance program. Comply with manufacturer's instructions.
 - Complete the following cleaning operations before requesting inspection for Certification of Substantial Completion.
 - a. Clean the site, including landscape development areas, of rubbish, litter and other foreign substances. Sweep paved areas broom clean; remove stains, spills and other foreign deposits. Rake grounds that are neither paved nor planted, to a smooth even-textured surface.
 - C. Compliance: Comply with regulations of authorities having jurisdiction and safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on the Owner's property. Do not discharge volatile, harmful or dangerous materials into drainage systems. Remove waste materials from the site and dispose of in a lawful manner.
 - 1. Where extra materials of value remaining after completion of associated Work have become the Owner's property, arrange for disposition of these materials as directed.

END OF SECTION 01700

Issue: 10/1/03

i I			
•			
ſ			
ı			

DIVISION 2 - SITEWORK

SECTION 02000 WORK INCLUDED

PART 1 - GENERAL

SUMMARY

The Contractor shall provide all labor, material, and equipment necessary to perform the work as depicted or suggested on the Contract Drawings to the standards of the General Conditions and this Division where applicable.

The Work in this Division shall include, but is not limited to, the following:

Excavation and off-site disposal of petroleum contaminated soils, environmental testing of excavation soils, stability and security of excavations and adjacent City of Schenectady sewer pipelines, collection and management of excavation dewatering, discharge and possible pretreatment of excavation water, on-site management of soil materials, restoration of site grades with clean imported backfill soils and seeding, removal of eight (8) ground water monitoring wells, maintenance of site security and health and safety.

SITE CONDITIONS

The drawings and specifications do not purport to show and describe all aspects of the work involved, but rather, they outline the work for general informative purposes.

The Contractor shall visit the site and acquaint himself with all existing conditions.

END OF SECTION 02000

Issue: 10/1/03

SECTION 02011 MOBILIZATION & DEMOBILIZATION, SITE PREPARATION, AND SITE FACILITIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division-1 Specification Sections, apply to this Section.

1.2 DESCRIPTION

A. The work for this Item and its cost shall include mobilizing everything necessary to complete the Work; preparing the site for soil excavation including grubbing as necessary; constructing the decontamination pad, staging areas, the decontamination and personal hygiene facilities and utilities; layout and maintenance of the excavation area survey grid; satisfactorily completing all work required by Contract Documents and not included in the other payment items restoration and demobilizing from the site. All work, and the means to mange the work, shall be presented in the Work Plan to be submitted by the Contractor (Section 01300 (1.5)).

1.3 SITE ACCESS

A. The Contractor shall enter and leave the site from the North, from/to Anthony Street. The Contractor may, at his option, construct an on-site access road, as necessary, which shall be removed at the end of the contract.

1.4 UTILITIES

- **A.** The Contractor shall provide all necessary utilities to the site for proper execution and satisfactory completion of this Contract. Contractor shall be responsible for utility markouts. This includes furnishing, operating and maintaining the following utilities and their removal upon completion of the project:
 - 1. Potable water supply (Decontamination wash water)
- **B.** The Contractor shall determine the site water requirements and provide adequate potable water from off-site sources. The Contractor shall provide to the Engineer for approval shop drawings showing water supply, contaminated washwater handling and sanitary facilities including source points, layout locations, fixtures, materials and methods of disposal.
- **C.** A high pressure wash system shall be provided for the equipment decontamination pad and shall be suitably sized to provide a minimum pressure of 500 psi and a 0.5 gallons per minute flow and a nominal temperature of 200 \square F. Wash units for equipment decontamination shall be self-contained, portable high pressure water or steam units.
- **D.** Washwater from the equipment decontamination pad shall drain into the sump adjacent to the wash pad. The water shall be pumped from the sump to a temporary holding tank and finally disposed in accordance with Federal and State environmental regulations, at the Contractor's expense. The washwater may be disposed of in accordance with the Construction Water Mangement Plan, Section 02511, if relevant requirements are met. If such requirements are not met, the Contractor will be responsible for on-site treatment of washwater or off-site disposal. The Contractor is responsible for

Issue: 10/1/03 Mobilization & Demobilization, Site Preparation/Facilities
Section 02011

securing the acceptance agreement from the said facility. The acceptance agreement shall be submitted to the Engineer for approval prior to disposal.

1.5 **TEMPORARY FACILITIES**

This Section includes furnishing, operating and maintaining the following temporary facilities and their removal on completion of the project:

- 1. Sanitary Facilities
- 2. Emergency medical facilities in accordance with OSHA.
- 3. Meteorlogical station to support air monitoring.
- 4. Decontamination and equipment storage.
- 5. **Excavation Survey Grid**

Shop drawings showing General layouts of temporary site facilities including trailers, emergency medical facilities, parking areas and equipment lay down areas shall be submitted and approved by the Engineer prior to delivery to or installation at the site:

All facilities specified shall be located on site within the Project Site boundary (Support Zone) except as shown on the Contract Documents or approved by the Engineer with the exception of the emergency medical and decontamination facilities which shall be located within the Contamination Reduction Zones.

All materials shall be suitable for their intended use and shall conform to applicable codes and standards. Manufacturers' requirements shall be strictly adhered to.

1.5.1 SANITARY FACILITIES

- Sanitary facilities, and disposal of sanitary wastes, shall be in accordance with New York State A. Department of Health and local requirements.
- B. Adequate sanitary facilities for both male and female on-site personnel shall be provided throughout the Contractor Work Area.
- Waste from sanitary facilities shall be collected in holding tanks and disposed of at the expense C. of the Contractor. Contractor shall obtain appropriate construction permit(s) from the Schenectady County Department of Health, as necessary, prior to construction. The proposed sanitary facilities shall be constructed in accordance with the Schenectady County Sanitary Code or other applicable code.

1.5.2 EMERGENCY MEDICAL FACILITIES

A separate area shall be provided in the active Contamination Reduction Zone for emergency medical facilities.

1.5.3 METEOROLOGICAL STATION

A Meteorological station to support air monitoring shall be installed, as required and consistent with the Site Air monitoring Program, which shall include the Community Air monitoring Plan (CAMP).

1.5.4 DECONTAMINATION PAD

Issue: 10/1/03

The Contractor shall construct and place a decontamination pad. Each decontamination pad will be equipped with a drain system and holding tank on a properly graded area that has no deleterious material. The Contractor shall obtain and analyze three soil samples at the area where the

Mobilization & Demobilization, Site Preparation/Facilities

decontamination pad is to be built and three soil samples after the pad has been dismantled. The cost associated with the samples shall be included in the site preparation cost.

- **B.** The Contractor shall be responsible for the provision of an adequately equipped decontamination pad which shall meet the following requirements:
 - Adequate dimensions to contain wash water and debris from the largest sized vehicles to be utilized in this Contract. All vehicles and construction equipment leaving the Exclusion Zone shall be decontaminated.
 - II. Perimeter to be curbed and provided with splash guards.
 - III. Impervious membrane (minimum 40 mil) required to prevent seepage into the ground.
 - IV. Sumps, pumping facilities, and temporary storage facilities to be adequate for anticipated use.
 - V. Temporary storage facility may be mobile tankers or suitable fixed tanks. Fixed tanks shall be located within secondary containment areas capable of containing 100% of the tank capacity, or 110% of the largest tank where the secondary containment area holds more than one tank. The secondary containment area shall have a permeability of not more than 1.0 x 10⁻⁷ cm/sec.
 - VI. All facilities to be at minimum 5 feet clear of the Contamination Reduction Zone boundary.
 - VII. The decontamination pad is to be located at the exit of the exclusion zone.
 - VIII. The Contractor shall place a minimum of 6 inches of sand over and under the decontamination pad.
 - IX. There shall be side wall panels, six feet high minimum, on two sides to prevent overspray.
- **C.** Shop drawing of the decontamination pad shall be submitted to the Engineer for his approval. The Contractor shall clean the decontamination pad after daily use. No contamination shall be left behind. The Contractor will be required to dismantle, remove and properly dispose of the pad at his own expense.

1.5.5 EXCAVATION SURVEY GRID

A. The Contractor shall provide instrument survey and maintenance of field reference stakes to establish and maintain the excavation area survey grid as shown on the Contract Drawings.

1.6 STAGING AREAS

Issue: 10/1/03

A. The Contractor shall provide staging areas if necessary for transportation off site. These staging areas will be to stage contaminated soil. The staging area shall be bermed with a 40 mil watertight liner covering the berm including the entire footprint of the berm. The floor of the staging area shall be sloped to a sump lined as to achieve its water-tightness. The locations of all staging areas shall be approved by the Engineer.

Mobilization & Demobilization, Site Preparation/Facilities Section 02011

- В. The staging area(s) shall be lined with a minimum 40 mil sealed, watertight liner. The Contractor shall take sufficient precautions to ensure the integrity of the liner during its use. This liner shall be properly transported and disposed of by the Contractor when the staging area is no longer needed. The Contractor shall provide a minimum 20 mil sealed, watertight liner to cover staged materials. Staged materials shall be covered at all times to prevent contaminated runoff.
- C. All staging areas shall be constructed in such a way as to prevent the spread of contamination to the surrounding soils, surface water, or groundwater.
- D. Shop drawing of all staging areas shall be submitted by the Contractor to the Engineer for review and approval.

1.7 CONSTRUCTION DEWATERING FACILITY

- A. The Contractor shall provide dewatering system for saturated excavated material. The plans and specifications for these areas shall be detailed in the Materials Management Plan Submittal. (Section 02220).
- B. All water generated from this dewatering system (and also from any excavation dewatering) shall be managed, treated and discharged in accordance with all relevant standards, regulations and guidance. All construction water shall be handled in accordance with the Construction Water Management Plan (Section 02511) and Excavation Dewatering (Section 02220).

1.8 CERTIFIED WEIGHT FACILITY

The Contractor shall provide a scale ticket from a certified scale prior to and after each load is loaded onto the truck. The Contractor is responsible to locate a facility having a certified scale and must receive the Department's approval two weeks prior to use. The Contractor shall assure observance of the legal load limits on all public roads.

1.9 **FENCING**

The Contractor shall install temporary, secure 5 foot high plastic construction fence (Tenax Alpi or equal) as necessary in order to meet the requirements of the contract (i.e., site security, safety, etc.). All temporary fencing shall be removed and properly disposed at the completion of the work.

1.10 CLEARING

Issue: 10/1/03

The Contractor shall clear areas as needed for excavation of contaminated soils. This clearing shall be performed in accordance with Section 02110.

1.11 **EROSION & SEDIMENTATION CONTROLS**

Erosion and sedimentation control procedures acceptable to the Engineer shall be utilized at the downgradient perimeter of work areas and shall occur as required immediately following any clearing or surface disturbance activities.

> Mobilization & Demobilization, Site Preparation/Facilities Section 02011

1.12 SUBMITTALS – SITE UTILIZATION PLAN

The Contractor shall prepare and submit a Site Utilization Plan which shall clearly indicate how the site shall be utilized, managed and maintained to complete the required Work. The plan shall be consistent with, and may be coincident with, other Plans prepared in accordance with Section 01300.

1.13 COLD WEATHER OPERATIONS

The Contractor shall take all necessary steps to protect and continue the work during cold weather and cold season storms, and shall take necessary precautions to protect and maintain project facilities and equipment. This shall include, but not be limited to:

- A Maintain site access and clear snow and sleet as required. Snow and sleet collected in work areas shall be considered construction water.
- B. Protect equipment from freezing, including pumps, excavation equipment, water storage and water pre-treatment system equipment, and all pipes, hoses, and other means of water conveyance. In the event that equipment is damaged or inoperable due to freezing or cold weather conditions, the Contractor shall promptly repair or replace such equipment and place the project facilities into operation.
- C. Protect all Health & Safety and environmental monitoring equipment and instruments from damaging weather to insure proper operation, and/or adjust to cold weather procedures, and/or provide alternate equipment and instruments.

END OF SECTION 02011

Issue: 10/1/03

SECTION 02110 CLEARING

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes, but is not necessarily limited to:
 - 1. Removal of brush, grass and other vegetation.
 - 2.Clearing and grubbing
 - 3. Collection and disposal of debris.
- B. The site shall be cleared and within the project limits north and east of the "Western Fill" area as shown on the Drawings.

1.2 PROJECT CONDITIONS

- A. Conduct site clearing operations to ensure minimum interference with roads and other adjacent occupied or used facilities.
- B. Prevent damage to pipes, conduits, wires, cables or structures above or below ground. No land monuments, property markers, or official datum points shall be damaged or removed until an authorized agent has witnessed or otherwise referenced their location and approved their removal. Control operations to prevent damage to trees and shrubs which are to be preserved. Protection may include fences and boards lashed to trees to prevent damage from machine operations. Fresh scars and wounds shall be painted with an approved tree paint.
- C. Provide protections necessary to prevent damage to adjoining properties. Restore damaged items to their original condition, at no additional cost to the Owner, and as acceptable to the Engineer.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.1 SITE CLEARING

A. Remove trees, shrubs, grass and other vegetation, improvements, or obstructions interfering with installation of new construction, except those designated to be left in place. Clear and remove items on the site as specifically indicated.

3.2 CLEARING AND GRUBBING

- A. Clear the site of sapplings, shrubs, and other vegetation north and east of the "Western Fill" area, but <u>not</u> including the "tree line" along the north and western side of the site. Cutting may be done with "brush hog" or mowing equipment, as appropriate, to maintain the active site area in an accessible and observable condition.
- B. Existing sod and root structure shall not be cleared, and clearing operations shall minimize conditions susceptible to the creation of erosion or dust nuisance conditions.

Issue: 10/1/03 Clearing
Section 02110
Page 1 of 2

3.3 REMOVAL OF IMPROVEMENTS

A. Remove existing above-grade and below-grade improvements necessary to permit construction and other work as indicated. Abandonment or removal of discovered underground piping and conduit interfering with construction is included under this section, unless specified elsewhere.

3.4 DISPOSAL

- A. Burning is NOT permitted.
- B. All clearing and grubbing debris shall be disposed of off-site or chipped, ground, etc, into pieces less than three inches in greatest dimension and shall be removed from the site to a location acceptable to the Engineer.
- No stumps or other debris shall be felled, sidecast, or placed outside the project limits.
- D. Erosion and sedimentation control procedures acceptable to the Engineer shall be utilized at the down-gradient perimeter of work areas and shall occur as required immediately following any clearing or surface disturbance activities.

END OF SECTION 02110

SECTION 02120 Monitor Well Decommissioning

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division-1 Specification Sections, apply to this Section.

1.2 SUMMARY

This Section specifies the work required to decommission 8 existing on-site monitoring wells.

The 8 monitoring well were also constructed of 2-inch diameter schedule 40 PVC piping to depths ranging from 16 ft. to 37 ft. below grade. These wells mostly consist of 10 feet of 0.01 machine slot screen with a threaded bottom plug and flush threaded into schedule 40 PVC riser pip of the same diameter. The top of each well is equipped with vented non-threaded cap. The 2 deep wells (HC-2d and HC-4d) are bedrock wells and are of a similar construction except that slotted screen is installed into a drilled rock socket. All the wells were finished with two or three foot thick concrete plug and surface work pad and equipped with a locking protective steel casing. The 8 monitoring wells are located on the Contract Drawings as HC-1, HC-2s, HC-2d, HC-3, HC-4s, HC-4d, HC-5, and HC-6.

PART 2 - PRODUCTS

2.1 MATERIALS

A. BENTONITE GROUT

Cement/Bentonite Grout- The cement/bentonite grout shall consist of a mixture of 2 to 5 pounds of pure bentonite powder per 94 pound base of Portland Cement Type I or II with 7 to 8 gallons of water. Bentonite products and additives shall be mixed in accordance with manufacturer's specifications.

PART 3 - EXECUTION

Issue: 10/1/03

3.1 INSTALLATION

A. DECONTAMINATION

Prior to beginning at each location, the equipment and tools used in the decommissioning must be decontaminated at a site decontamination pad following the procedures detailed in the site's Health and Safety Plan.

B. DECOMMISSIONING

Wells shall be decommissioned in accordance with the most recent NYSDEC Well Decommissioning procedures (drafted in October, 1996) and as approved by the Engineer. The method for decommissioning is casing pulling which involves removing the well casing by lifting. The procedure for removing the casing must allow grout to be added during the pulling operation. Grout will fill space once occupied by the material being withdrawn.

Monitor Well Decommissioning Section 02120 Page 1 of 2 The procedure to remove casing involves puncturing the bottom of the casing, flushing with water to remove sand (if necessary to mitigate lock-up of the casing during pulling), filling the casing with grout and lifting the casing out by using a drill rig, backhoe, crane, or other suitable equipment. Additional grout must be added to the casing as it is withdrawn. In the event of casing failure during removal, the remaining casing will be over-drilled to a minimum depth of 10 feet below ground surface and grouted (via pipe tremie) to grade.

C. PIEZOMETER AND WELL DECOMMISSIONING WASTES

The materials anticipated to be generated during well decommissioning activities include decontamination fluids, disposable safety equipment (including personal protective equipment), drill cuttings, well construction materials (PVC casings, well screens, sand, bentonite/grout mixtures, etc.) and any spill containment materials.

During well decommissioning activities, generated waste materials must be contained and segregated according to the nature of the suspected contamination. All well materials generated from decommissioning must be properly disposed of off-site.

END OF SECTION 02120

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division-1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. These items include the cost of required seeding and backfill materials obtained offsite. The quantity of compacted fill and cover material for which payment will be determined by field measurements, cross sections and surveys as performed by the Contractor with the Engineer present. Cost associated with this work shall include obtaining the material to be placed (measured after compaction), placement, compaction and grading of that material. Cost associated with this work shall include obtaining the material to be placed, placement, compaction and grading of that material.
- B. No materials shall be placed by the Contractor until the sub-grades are observed and all backfill material is confirmed to be suitable for placement by the Engineer. The material needed for backfill will be additional soil from a NYSDOT permitted pit or NYSDEC permitted mining operation. Final grades shall have no low spots and shall be properly drained.

PART 2 - PRODUCTS

2.1 MATERIALS

A. General: Provide new materials; if acceptable to the Engineer, undamaged previously used materials in serviceable condition may be used. Provide materials suitable for the use intended.

2.2 SEEDING

- **A.** All of the excavated and backfilled areas, and all areas disturbed and damaged by the Contractors activities, will be seeded, and mulched to protect from erosion, as directed by the Engineer.
- **B.** The areas to be seeded shall be prepared, and seed and mulch applied, as required by Section 02931 Seeding.

2.3 BACKFILL

A. Suitable backfill materials shall be used to complete the fill of the areas of excavation to within 6 inches of the finished grade in areas "A" and "B."

Issue: 3/1/04 Earthwork
Section 02200
Page 1 of 2

- Backfill material shall be capable of sustaining plant life and reasonably free from roots, heavy or stiff clay, stones larger than 2 inches in greatest dimension, noxious weeds, sticks, brush, litter and other deleterious matter. Backfill materials should be similar in consistency to existing materials. Determination of whether a specific material is suitable shall be made by the Department on the above basis. Backfill shall not be delivered to the site or used while in a frozen or muddy condition.
- C. Backfill material must come from a NYSDOT-approved source and analytical results of the soil must be provided. If a NYSDOT source is not used, a NYSDEC mining permit must be obtained and analytical results of the soil must be provided.

The contractor shall submit to the Engineer, the following:

- 1) Name and location of the proposed source of backfill
- A grain-size analysis, including hydrometer analysis of the proposed backfill material in accordance with ASTM D 422 and
- The liquid limit of the backfill material in accordance with ASTM D 4318
- 4) Environmental testing in accordance with the Sampling and Analysis Plan (Section 02506) of backfill material at a rate of 1 per 5,000 cy, minimum 2 samples.
- D. All the backfill material shall be placed in uniform lifts not greater than 12 inches in thickness. Compact each lift using suitable (10-ton minimum) smooth wheel roller or equivalent. Compact lifts with four passes of the compactor. The fill shall be compacted at a moisture content within 2 percent of optimum at the time of placement. Improperly compacted fill material shall be replaced at no additional cost to the Owner. Compaction or consolidation achieved by traveling trucks, machines, or other equipment is not acceptable. The backfill shall be placed within four (4) inches of final grade.
- E. Backfill areas shall be free of debris, standing water (except in the wetland area), snow, and ice, and ground surfaces shall not be frozen during placement of backfill. Where required, add sufficient water during the compaction effort to assure proper density. Material that exceeds the acceptable range for optimum moisture content shall be dried to within the acceptable range before compaction or backfilling.
- **F.** Erosion shall be the responsibility of the Contractor and shall be controlled to the satisfaction of the Engineer.
- **G.** Backfill material shall not be placed by the Contractor until the material is confirmed to be suitable for placement by the Engineer or its representative. The material shall be similar to the sand and gravel existing onsite.
- **H.** The Contractor shall give a 48-hour advance notice in writing and allow sufficient time for the Engineer to schedule and inspect as the Contractor measures cross sections and surveys the bottom of the excavation.

END OF SECTION 02200

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division-1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. The CONTRACTOR shall dewater as necessary in order to efficiently and accurately excavate contaminated soil below the water table in excavations or trenches in the vicinity of Area A and Area B.
- **B.** During the removal of water from excavation areas or excavated material:
 - The CONTRACTOR shall at all times, provide and maintain proper and satisfactory means and devices for the removal of all water entering the excavations and shall remove all such water as fast as it may collect in such manner as shall not interfere with the continuance of the work.
 - Water pumped or drained from the excavation encountered in the work, shall be treated and disposed of as described in the approved Construction Water Management Plan without injury to the work under construction or to roads or water courses.
 - 3. Any damage to down-gradient water courses caused by or resulting from dewatering and releasing operations shall be the sole responsibility of the Contractor.

1.3 TEMPORARY ELECTRIC POWER

A. The Contractor shall provide, as necessary, all power required to accomplish the required dewatering, and shall remove all temporary power facilities upon completion of required excavation and backfilling.

1.4 TEMPORARY CONSTRUCTION

A. The Contractor shall provide, as necessary, all temporary construction necessary to accomplish the required dewatering, including all materials, equipment, and construction labor, and shall remove all temporary construction upon completion of required excavation and backfilling except as specifically allowed in writing by the Engineer

1.5 SUBMITTALS

A. Excavation Dewatering Plan.

The Contractor shall submit n Excavation Dewatering Plan, consistent and in accordance with the Construction water Management Plan (Section 02506). This Plan shall describe the means and methods of dewatering the required areas prior to excavation and shall include a description of materials, locations, depths, discharge, and pre-treatment (if necessary) to be utilized in the collection and disposal of removed waters.

Issue: 10/1/03 Excavation Dewatering
Section 02220
Page 1 of 3

1.6 PROJECT CONDITIONS

Conditions of Use: Keep temporary services and facilities clean and neat in appearance. Operate in a safe and efficient manner. Take necessary fire prevention measures. Do not overload facilities, or permit them to interfere with progress. Do not allow hazardous dangerous or unsanitary conditions, or public nuisances to develop or persist on the site.

PART 2 - PRODUCTS

2.1 MATERIALS

A. General: Provide new materials; if acceptable to the Engineer, undamaged previously used materials in clean and serviceable condition may be used. Provide materials suitable for the use intended.

2.2 EQUIPMENT

A. General: Provide suitable equipment acceptable to the Engineer, undamaged previously used equipment in clean and serviceable condition may be used. Provide equipment suitable for the use intended.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Excavation dewatering facilities shall be installed and operated in accordance with the Excavation Dewatering Plan approved by the Engineer, suitable to accomplish excavation dewatering prior to excavation of soils requiring removal. All installation must comply with applicable federal, state, and local environmental and worker safety regulations.

3.2 COLLECTION AND DISPOSAL OF WATER REMOVED BY DEWATERING SYSTEM

- **A.** Dispose of all water removed from the excavation in such a manner as not to endanger property or any portion of the Work under construction or completed.
- **B.** Method of collection and disposal to be determined by the Contractor, consistent with the project requirements and the Construction Water Management Plan. Dewatering of Area A and Area B must be accomplished to the anticipated depth of the final excavation, approximately 12 feet.
- C. Handle and dispose of water in accordance with the approved Construction Water Management Plan specified. Discharge may be directly to the City of Schenectady Waste Water Sewer and Treatment Plant if testing indicates compliance with applicable effluent limitations. If testing indicates collected waters do not comply with applicable effluent limitations, water may be pretreated on-site to meet such limitations or removed from the site in accordance with the Construction Water Management Plan.
- **D.** Convey water from the construction site in a closed conduit. Do not use trench excavations as temporary drainage ditches except as integral to the water collection system.
- **E.** Dispose of water in such a manner as to cause no inconveniences to the Owner, NYSDEC, Engineer, or others on or adjacent to the area of excavation.

3.3 TESTING OF WATER PRIOR TO DISPOSAL

- A. CONTRACTOR shall collect a representative sample of all water to be discharged prior to discharge.
- **B.** Sample shall be analyzed for the parameters necessary to show compliance with Effluent Limitations and Monitoring Requirements for the site in accordance project Sampling and Analysis requirements (Section 02506).
- **C.** CONTRACTOR shall provide written results of sample analysis to ENGINEER prior to ENGINEER's authorization to discharge water.
- D. CONTRACTOR shall not discharge water without prior written approval from ENGINEER and the City of Schenectady.

END OF SECTION 02220

Issue: 10/1/03 Revised: 4/20/04

SECTION 02221 TRENCHING, PIPE BACKFILLING, AND COMPACTION

PART 1 - GENERAL

1.1 DESCRIPTION

- A. The Contractor shall provide all labor, materials, equipment, and services necessary for, and incidental to, the excavation of trenching, backfilling, compacting, dewatering, protection and disposal, fro excavations required for dewatering facilities and work adjacent to the City of Schenectady sewer lines, and as herein specified.
- B. The Contractor shall accept the site in the condition in which it exists at the time of award of the Contract.
- C. The Engineer will determine the suitability of materials that are to be used in the work and should any materials encountered be unsatisfactory for the purpose intended, they shall be removed from the site at the Contractor's expense.

1.2 QUALITY ASSURANCE

- A. Reference Standards: The latest edition of the following standards, as referenced herein, shall be applicable.
 - a. "Standard Specifications, Construction and Materials, New York State Department of Transportation, Office of Engineering".
 - b. "Standard Specifications for Highway Materials and Methods of Sampling and Testing, American Association of State Highway and Transportation Officials (AASHTO)".
 - c. American Society for Testing and Materials (ASTM).
- B. The Contractor shall comply with the requirements for soil erosion and sedimentation control and other requirements of governmental authorities having jurisdiction, including the State of New York

1.3 SUBMITTALS

Issue: 10/1/03

A Submit reports for prequalification tests listed in Article "Source Quality Control" of this Section directly from independent testing agency to Engineer, with copy to Contractor.

1.4 PROJECT REQUIREMENTS

- A. Notify the Engineer of any unexpected subsurface condition.
- B. Protect excavations by shoring, bracing, sheet piling, reduced wall slopes, or by other methods, as required to ensure the stability of the excavation. Comply with OSHA requirements.
- C. Underpin or otherwise support structures and utilities adjacent to the excavation which may be damaged by the excavation. This includes service lines.

Trenching, Pipe Backfilling and Conmpaction Section 02221

- D. Protection of Existing Utilities:
 - Locate existing underground utilities in areas of work, specifically the City of Schenectady sewer lines. Provide adequate means of support and protection during earthwork operations. Comply with OSHA requirements.
 - 2. No interruption or termination of utilities will be allowed.
 - 3. Provide a minimum of forty-eight (48) hours notice to the Owner and receive written notice to proceed before beginning any work immediately adjacent to the City of Schenectady sewer lines.
 - 4. Demolish and completely remove from the site any existing underground utilities designated to be removed, as shown on the Drawings or as specified in Section "Clearing and Grubbing".
 - 5. Repair any damaged utilities as acceptable to the Owner, Engineer, and utility company at no additional cost to the Owner.
- E. Protection of Persons and Property:
- 1. Barricade open excavations occurring as part of this work and post with warning lights, if required.
- 2. Operate warning lights as recommended by authorities having jurisdiction.
- 3. Protect structures, utilities, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout and other hazards created by earthwork operations.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Pipe Zone Backfill: Sound, durable sand, gravel, stone or blends of these materials, free from organic, frozen or other deleterious materials, conforming to the requirements of NYSDOT Section 304 and meeting the following gradation requirements (NYSDOT Subbase Type 4):

<u>Sieve</u>	Percent Passing	
2"	100	
1/4"	30-65	
No. 40	5 -4 0	
No. 200	0-10	

B. Suitable Material: Sound, durable sand, gravel, stone or blends of these materials, free from organic, frozen or other deleterious materials, conforming to the requirements of NYSDOT 203-2.02C and meeting the following gradation requirements:

<u>Sieve</u>	Percent Passing	
4" No. 40	100 0-70	
No. 200	0-75 0-15	

Issue: 10/1/03 Trenching, Pipe Backfilling and Compaction

Run-of-trench material, meeting the above criteria, shall be considered suitable material and shall be used for trench backfill only after tested in accordance with the specifications and approved by the Engineer. The Contractor shall pay for all testing required to determine the conformance of run-of-trench material.

2.2 SOURCE QUALITY CONTROL

- A. Contractor shall employ the services of an independent testing agency in accordance with Section "Quality Control Services" to perform the prequalification tests listed in the Paragraphs of this Article.
- B. Notify Engineer when and where sampling will take place. Provide 5 working days notice.
- C. Tests listed below shall be performed on each sample obtained. Three(3) representative samples shall be obtained from each potential borrow source. If different material gradations are known to exist in the pit, samples shall be obtained from each material proposed for use in the Work.
- D. Pipe Zone Backfill, Suitable Material:
 - 1. Particle Size Analysis:
 - Method: ASTMD422
 - b. Number of Tests: One (1) per sample; three (3) per potential source.
 - Acceptance Criteria: Gradation within specified limits.
 - 2. Maximum Density Determination:
 - Method: ASTM D698 -Standard Proctor
 - b. Number of Tests: One (1) per sample; three (3) per potential source.

PART 3 - EXECUTION

3.1 PREPARATION

- Establish required lines, levels, contours and datum.
- B. Maintain benchmarks and other elevation control points; reestablish if disturbed or destroyed, at no additional cost to the Owner.
- C. Establish location and extent of existing utilities prior to commencement of excavation.

3.2 EXCAVATION

- A. Trench excavation for pipes shall be made by open cut to accommodate the pipe or structure at the depths indicated in the Contractor's dewatering plan
- B. Excavated soil shall be managed in accordance with the Contractor's approved Site Management Plan and the provisions of Section 02200 Earthwork, Section 02504 Excavation and Disposal of Contaminated Soil, Section 02007 Materials Handling, Section 02506 Sampling and Analysis, and Section 02011 Excavation Water Management.

C. Stability of Excavation: Slope sides of excavations shall comply with local codes and ordinances having jurisdiction. Shore and brace where sloping is not possible because of space restrictions or stability of material excavated. Maintain sides and slopes of excavation in safe condition until completion of backfilling.

3.3 BEDDING AND BACKFILLING

- A. All pipe trench backfill (pipe zone backfill and trench backfill) shall be compacted by tamping or rolling to achieve a minimum dry density of 95 percent of the standard Proctor maximum dry density of the material used (ASTM D698). Backfill in pipe trenches to be covered with pavement shall be compacted to a minimum of 98 percent of standard Proctor maximum dry density. Backfill materials shall be placed with water content within plus or minus 4 percent of optimum moisture content per the standard Proctor method (ASTM D698). Any water used for compaction shall be provided by the Contractor at his own expense. The approval of the Engineer of the proposed method of compaction of backfill shall in no way be construed as relieving the Contractor of responsibility of settlement of trenches, etc. and any settlement shall be repaired by him at his own expense.
- B. Pipelines shall be backfilled to meet existing construction and shall include placement of "pipe zone backfill" from the top of the existing pipe bedding material up to one (1) foot above the pipe. Above this elevation backfilling involves the placement of "trench backfill" in the remainder of the trench up to the surface of the ground.
- C. Pipe zone backfill shall be placed in loose lifts not-to exceed six (6) inches in thickness, before compaction. The backfill shall be placed on both sides of the pipe at the same time and to approximately the same elevation. Any pipe that is damaged or moved out of alignment, regardless of cause, shall be replaced or realigned at the Contractor's expense. Each layer shall be thoroughly compacted by handtamping or mechanical means being careful not to damage the pipe. When the pipe zone backfill reaches one (1) foot over the top of the pipe, the entire surface shall be compacted by mechanical means.
- D. The remainder, if any, of the trench above the pipe zone backfill shall be backfilled with select granular fill in loose lifts not exceeding six (6) inches in thickness before compaction. Each layer shall be thoroughly compacted by mechanical means.

3.4 FIELD QUALITY CONTROL

- A. Contractor shall perform in place density in accordance with ASTM D 2922: Test Methods for Density of Soil and Soil Aggregate in Place by Nuclear Methods (shallow depth) at a frequency of one test per 25 linear feet per lift. Acceptance criteria is established in paragraph 3.4(A) of this section.
- B. Engineer will direct Contractor to perform additional tests to establish gradation maximum density, if the quality of the material changes, at the Contractor's expense. These additional tests will be provided by the Contractor at no additional cost to the Owner.
- E. Acceptance Criteria: The criteria for acceptability of in-place fill shall be in-situ dry density and moisture content. If a test fails to qualify, the fill shall be further compacted and retested. Subsequent test failures shall be followed by removal and replacement of the material.

END OF SECTION 02221

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division-1 Specification Sections, apply to this Section.

Related Work/Requirements Specified Elsewhere

- Section 02511 Construction Water Management
- 2. Section 02506 Sampling and Analysis (Verification Sampling)
- 3. Schenectady POTW Effluent Limitations and Monitoring Requirements (Attachment D)

1.2 SUMMARY

- A. The Contractor shall furnish all manpower, equipment, and materials, and execute all activities necessary to provide, install and operate a temporary water treatment system as specified herein. The temporary water treatment system shall be utilized during construction to provide for the treatment of all water generated during the performance of the Contract that exceeds the limitations of the discharge effluent limitations of the City of Schenectady Wastewater Treatment Plant.
- **B.** The Contractor shall provide a temporary water treatment system that is capable of handling a continuous flow rate for the period of construction, including furnishing all power and electrical connections required for the operation of the temporary treatment system.
- **C.** The Contractor shall provide a temporary water treatment system that is capable of treating water that is likely to contain the following:
 - a. suspended solids;
 - b. ·light non-aqueous phase liquids (oil and grease or LNAPL);
 - c. volatile organic compounds (VOCs).
- **D.** Based upon the collection and analysis of groundwater samples, it is anticipated that the temporary water treatment system shall include the following major components:
 - · pre-treatment filtration equipment;
 - oil and grease separator;
 - granulated activated carbon (GAC) filter;
 - effluent storage in one or more 20,000 gallon frac tanks; and
 - · system controls.

1.3 SUBMITTALS

A. The Contractor shall prepare and submit shop drawings for the water treatment system that presents the following information:

Issue: 10/1/03 Water Pre-Treatment
Section 02225
Page 1 of 3

Page 2 of 3

- A description of the Contractor's schedule to perform the work and the proposed manner by which the work will be completed
- Complete temporary treatment system arrangement/layout, connections, piping arrangements, and anchoring and support details;
- Design calculations used to size/select each system component;
- Equipment size, dimensions, and materials of construction for all system components;
- Piping connection sizes and types;
- Electrical wiring diagrams and schematics;
- Elementary control diagrams;
- · Equipment warranties; and
- Performance guarantee.

PART 2 - PRODUCTS

2.1 MATERIALS

A. General: Provide new materials; if acceptable to the Engineer, clean and undamaged previously used materials in serviceable condition may be used. Provide materials suitable for the use intended.

2.2 EQUIPMENT

A. GENERAL

The Contractor shall provide a temporary water treatment system to treat groundwater generated as part of excavation dewatering activities performed as part of the implementation of the Contract. The influent shall be treated to remove suspended solids, oil and grease and volatile organic compounds.

It is the Contractor's responsibility to obtain all information necessary and to design the temporary treatment system to meet the performance criteria as included in this specification and in Section 02011.

B. TREATMENT SYSTEM PERFORMANCE CRITERIA

It shall be the responsibility of the Contractor to design, construct, and operate the temporary system such that the permitted effluent criteria are maintained in accordance with the discharge limits as established in Attachment A: Effluent Limitations of the City of Schenectady Wastewater Treatment Plant.

C. PRE-TREATMENT FILTRATION

Filtration shall be provided, as necessary, to comply with the pre-treatment requirements of any and all temporary water treatment system components and the effluent limitations.

Issue: 10/1/03 Water Pre-Treatment
Section 02225

D. OIL AND GREASE SEPARATION

- 1. The oil and grease separation system shall be capable of removing light non-aqueous phase liquids (LNAPLs).
- At a minimum, the Contractor shall design and size the separator to treat a system flow equivalent to twice (two times) the design flow rate.
- The Contractor shall design and size the separation system to adequately remove LNAPL such that effluent limitations are achieved.

E. VOLATILE/SEMI-VOLATILE TREATMENT BY GAC FILTRATION

The Contractor shall design and size a granulated activated carbon filtration system such that treated water is in compliance with the effluent limitations set forth in Appendix A.

F. EFFLUENT STORAGE

Effluent storage with at least a 20,000 gallons capacity shall be provided with additional storage available, if required. Sampling shall be performed, effluent limits met, and approved by the Department prior to discharge to the intermittent stream at a point near the culvert underlying the access road.

G. CONTROLS

The Contractor shall be responsible for the design and installation of the necessary controls to safely and effectively operate the treatment units while maintaining the effluent limitations.

PART 3 - EXECUTION

3.1 INSTALLATION

A. The Contractor shall provide a fully operational temporary water treatment system prior to excavation work beginning; the Contractor shall operate and maintain the system as described in this specification that shall be used to treat construction water generated during the performance of the Contract.

END OF SECTION 02225

Water Pre-Treatment Section 02225 Page 3 of 3

SECTION 02504 EXCAVATION AND DISPOSAL OF CONTAMINATED SOIL

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division-1 Specification Sections, apply to this Section.

1.2 SUMMARY

- **A.** This item includes all costs associated with the excavation, staging, storing, dewatering, transportation, and disposal of non-hazardous, petroleum-contaminated, excavated soils exceeding site-specific, soil cleanup objectives. These cleanup objectives for soil at the Riverside Lot 6 are:
 - Individual Volatile Organic Compounds (VOCs) at/or less than 10 parts per million (ppm) and ethyl benzene at/or less than 5.5 ppm and xylene at/or less than 1.2 ppm, and/or
 - Total Volatile Organic Compounds (VOCs) less than 100 parts per million (ppm).

The area and volume of contaminated soil to be removed are identified as within Area A and Area B on the Contract Plans, the actual limits of which shall be determined at the time of excavation by field screening of VOCs by PID. This item includes the management and disposal of contaminated soils in a solid waste landfill.

- **B.** Sampling and analysis for this item shall include any work required by the disposal facility or other agencies, if any.
- **C.** All contaminated soil shall be sent to an acceptable permitted landfill facility. Final disposal will be subject to Applicable Law and the specific requirements of the specific landfill. The Contractor will be responsible for sampling and obtaining documents and test results which the Disposal Facility will require for proper disposal.
- **D.** Trucks used for transportation of material for off-site disposal shall be water tight and permitted pursuant to 6 NYCRR Part 364, operated by a properly NYS licensed hauler, properly manifested, and delivered to a licensed solid waste disposal facility.

1.5 PROJECT CONDITIONS

A. Conditions of Use: Keep temporary services and facilities clean and neat in appearance. Operate in a safe and efficient manner. Take necessary fire prevention measures. Do not overload facilities, or permit them to interfere with progress. Do not allow hazardous dangerous or unsanitary conditions, or public nuisances to develop or persist on the site.

PART 2 - PRODUCTS

2.1 MATERIALS

A. General: Provide new materials; if acceptable to the Engineer, undamaged previously used materials in serviceable condition may be used. Provide materials suitable for the use intended.

Excavation and Disposal of Contaminated Soil Section 02504 Page 1 of 3

PART 3 - EXECUTION

3.1 INSTALLATION

Issue: 3/1/04

- **A.** It is the responsibility of the Contractor to perform all excavation work in accordance with all applicable laws including, but not limited to, OSHA Excavation and Trenching Safety Regulations (29 CFR 1926.650). The Contractor will provide civil, structural, soil or other NYS licensed professional engineering services and stamped/signed plans as required to properly execute any necessary structural shoring for excavation. The materials shall be removed using methods which will prevent spillage of wastes in accordance with the spill control requirements.
- **B.** The excavation shall be performed to the depths specified in the areas "A" and "B" as shown on the Contract Drawings; or as directed by the Engineer to remove contaminated soils. Verification sampling shall be performed in the excavation bottoms on a twenty five foot grid in accordance with Sampling and Analysis (Section 02506). The Contractor shall maintain field reference (stakes) to the excavation area survey grid, and shall re-establish field controls as required to monitor soil removal progress in the excavation area. The Contractor shall also provide survey elevations or depth determination of the excavation bottoms.
- C. The Contractor shall be responsible for all sampling and analyses as may be required by disposal facilities for disposal of contaminated soil. All sampling will be conducted with the Engineer and NYSDEC representative present. The soil shall remain covered during rain to minimize water accumulating in the soil.
- **D.** The Contractor shall be responsible for providing assistance to the Engineer in survey control of the work. This shall include necessary labor to assist Engineer in checking depth of excavations performed.
- **E.** The Contractor shall control vapors, odor, and dust originating during excavation, stockpiling, staging activities, dewatering (if needed), loading and other operations under this Contract. Methods may include plastic sheeting or foam suppression and must receive prior approval by the Engineer.
- F. Surface water shall be prevented from entering areas of known contamination. The Contractor shall comply at all times with the approved Construction Water Management Plan. Surface water from known areas of contamination shall be collected, treated and properly disposed. The Contractor shall not allow surface water to leave areas where it came in contact with contamination. Surface water from areas of the site which have not been disturbed and which have not been identified as contaminated shall be kept from entering areas where construction involving contaminated work is in progress. Size, layout and construction of any surface water management features shall be in accordance with applicable soil erosion and sediment control standards. In the event surface runoff causes existing clean areas, or subsequently cleaned areas, to become contaminated, the affected areas shall be cleaned in accordance with instructions given by the Engineer at the Contractor's expense.
- **G.** The Contractor shall provide all equipment, personnel and facilities necessary to load waste materials for either on-site or off-site transportation. For off-site transportation, the Contractor shall comply with the regulations of those States, if any, through which the Contractor plans to transport the materials.

- **H.** Vehicles used to haul waste materials both on and off site shall be designed, equipped, operated and maintained to prevent leakage, spillage or airborne emissions during transport. All vehicles shall be decontaminated in the Contamination Reduction Zone prior to leaving the site, and a decontamination certificate, signed by the Contractor's Health and Safety Officer or his designated representative, shall be provided to the Owner's representative stating the following:
 - No soil or other material is adhering to the vehicle body, tires or undercarriage.
 - The vehicle is not leaking or dripping liquids.
 - c. The contents of the vehicle are covered or completely enclosed so as to prevent potentially fugitive particulate matter from becoming airborne.
- I. The Contractor shall complete required Bill of Lading forms for the Owner for proper transportation and disposal of materials off-site. However, the Contractor shall be responsible and will be held accountable for assuring that all sampling, analysis, transportation, and disposal requirements of the approved landfill, federal government and state governments are complied with and properly documented.
- **J.** Prior to shipment of contaminated soil off the site, the Contractor shall confirm by written communication from the designated landfill that it is authorized, has the capacity, and will provide or assure that the ultimate disposal method is followed for the particular contaminated soil on the Bill of Lading. Additionally, the Contractor shall confirm by written communication from the designated transporter(s) that they are authorized to deliver the waste to the designated landfill.

3.2 DISPOSAL OF CONSTRUCTION WATER

- A. All costs associated with the treatment and disposal of construction water shall be borne by the Contractor, including pumping, storage, sampling and analysis. Water meeting the effluent limitations of the City of Schenectady Wastewater Treatment Plant may be discharged to a City Sanitary sewer on-site if it is not allowed to exceed a discharge rate of twenty (20) gallons per minute. Proper authorization must be obtained by the Contractor, and the Contractor must also obtain prior approval from the Engineer. The means and methods of disposal shall be included in the Construction Water Management Plan, Section 02011.
- **B.** All construction water must be collected, treated, sampled, analyzed and properly discharged. City of Schenectady Wastewater Treatment Plant Effluent Limits are included in Attachment A of the Contract Documents and must be met prior to any discharge of treated construction water. Treatment shall include, as necessary, filtration to remove suspended solids, oil separation and carbon adsorption.
- **C.** In the event that removal of contaminated soil requires excavation below the dewatered groundwater table, excavated contaminated soil must be dewatered, if necessary, prior to off-site disposal. All water from the dewatering process must addressed in accordance with the Construction Water Management Plan and Excavation Water Plan and must be sampled and treated, prior to disposal.

END OF SECTION 02504

Issue: 3/1/04

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division-1 Specification Sections, apply to this Section.

1.2 REQUIRED SAMPLES

In order to ensure that the remedial action has achieved the remedial goals, the Contractor shall prepare and shall submit to the Department for approval a Sampling and Analytical/Quality Assurance/Quality Control Plan which will be implemented during the remedial action. This Plan will be reflective of sampling and analytical requirements stipulated in this Section.

The following types of samples will be required as part of the remediation at the Riverside Lot 6 Site:

- A. <u>Preconstruction soil samples</u> taken in locations where expected contractor's activities will take place (e.g. decon area, soil loading, etc.). These samples should be included in the Mobilization/Demobilization costs. Analysis will be Method for Volatile Organic Compounds or equal. ASP Category B reporting and deliverable package with CLP format required.
- Post construction soil samples taken in the same locations as preconstruction soil samples, but after construction activities have been completed. These samples should be included in the Mobilization/Demobilization costs. Analysis will be Method 8021 for Volatile Organic Compounds or equal. ASP Category B deliverables with CLP format required.
- Verification soil samples from all excavated areas. Samples will be collected from the bottom of all areas (at least every twenty five (25) feet). Analysis will be Method 8021 for Volatile Organic Compounds or equal. ASP Category B reporting and deliverable package with CLP format required for verification soil samples.
- 4. <u>Collected construction water</u> sampling is required prior to discharge to document compliance with City of Schenectady Wastewater Treatment Plant Discharge Effluent Limitations and Monitoring Requirements for the Riverside Lot 6 site (included in this Contract as Attachment D). Parameters tested will include oil and grease, VOCs, and metals as indicated in Attachment D.

1.3 SUBMITTALS

A. SOIL SAMPLING AND TESTING

The Contractor shall collect pre-construction and post-construction samples from work areas approximately one for every 900 square feet. The Contractor shall collect verification samples from excavations, approximately every twenty five (25) feet, after the depth called for in the specifications or as directed by the Engineer has been attained.

A maximum 24 hour turnaround time is required on all verification samples collected in the excavations to confirm the extent of contamination. The intent is to minimize the amount of time the excavation remains open. The acceptable laboratory to be utilized for the required work must be approved in advance of this requirement. The Engineer and the representatives for the NYSDEC and NYS Department of Health (Michael Rivara) will each require hard copies of the analytical results, including QA/QC results, within 24 hours with the reporting and deliverable package to be supplied within 30 days. The addresses and fax numbers for the NYSDEC and NYSDOH are:

Kathryn Eastman NYSDEC Bureau of Site Remedial Action 625 Broadway, 11th Floor Albany, New York 12233-7013 Telephone: (518) 402-9656 Fax: (518) 402-9679 Michael Rivara NYSDOH Bureau of Environmental Exposure Inv. 547 River Street, Room 300 Troy, New York 12180-2216 Telephone: (518) 402-1860 Fax: (518) 402-7859

If the verification sampling results are not within the acceptable QA/QC ranges (as stated in the Contractor's QAP), the Contractor shall collect and analyze additional sample(s) at the location(s) of the sample(s) not meeting QA/QC requirements. A maximum 24- hour turnaround time is required on any additional sampling required as stated above.

The Engineer shall review the Contractor's Analytical Data Deliverable Package. If verification sampling data quality is found not to meet QA/QC requirements as stated in the Contractor's QAP after this review, the Contractor will be responsible for all costs to secure verification sampling data quality even if initial results indicate that the data met all QA/QC requirements. These additional costs could include but may not be limited to, resampling and analysis, further excavation and backfilling.

The Contractor will collect samples in locations designated by the Engineer, in his presence. The Contractor shall provide 24-hour notice to the Engineer prior to sampling. Sampling and analytical methods and procedures for sampling shall be in accordance with the approved QA/QC Plan Each Verification Soil Sample shall be analyzed for the following constituents:

<u>Constituen</u>	<u>Method</u>	<u>Deliverable</u>	Cleanup goal (ppm)
Total VOCs	88021	В	10 g/kg (ppm)

B. SUBMITTALS

These submittals are required by Section III, Bidding Information and Payment.

Quality Assurance Project Plan (QA/QC Plan)

Include and adequately address the following information in a project-specific QA/QC Plan. Such submittal shall be provided to the ENGINEER for review with consideration that appropriate approval of the submittal must be obtained prior to mobilization and subsequent field activities.

(1) An organizational chart including a designated, qualified QA Officer. The Quality Assurance Officer (QAO) is an employee of the same consulting firm generating the work pan and acts in conjunction with the project manager to develop a site-specific quality assurance plan. The QAO must not have another position on the project, such as a project or task manager, that involves project productivity or profitability as a job

Issue: 10/1/03

performance criteria. The project QAO must have a minimum of a bachelor's degree in chemistry or natural science with a minimum of 20 hours in chemistry. The QAO must be proficient in analytical methodology, data interpretation and validation, the development of sampling plans, quality control procedures, and auditing techniques. The QAO will assist the project manager in the development of the sampling and analytical portion of the QAPP. The QAO or his/her designee shall conduct periodic field and sampling audits, interface with the analytical laboratory to make requests and resolve problems, interface with the data validator, and develop a project-specific data usability report. Because on-site work may be necessary, verification of completion of the 40-hour OSHA safety training course and 8-hour refresher course is required. Include a copy of the QAO's resume and signature page for the QAO. The plan and all revisions shall be signed by the QAO prior to submission to the ENGINEER. The QAO shall be independent of the analytical laboratory;

- Data quality objectives for the site and identify data uses;
- (3) A chart reflecting the approximate number of samples to be collected, matrices, holding times, analytical protocols to be used, and anticipated QA/QC samples to be collected or analyzed;
- (4) Sample-collection techniques;
- (5) Analytical protocols to be followed. The acronym "CLP" is insufficient. Designate by method number what protocol contained in the New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocol (ASP) shall be used;
- (6) Specific limits of concern for each of the analytes listed in each of the matrices to be sampled;
- (7) The matrix-specific method detection limit that must be obtained for each of the analytes and matrices listed. This value should be one-fifth of the site-specific limit of concern (cleanup goal);
- (8) Samples must be received by the laboratory (VTSR) within 24 hours of sample collection. Samples shall be preserved in accordance with NYSDEC ASP;
- (9) Analytical laboratory to be used. The analytical laboratory must maintain New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) Contract Laboratory Protocol (CLP) certification for all subcategories of solid and hazardous waste, including CLP metals;
- (10) Acetone is an unacceptable solvent for decontamination of sampling equipment. Steam cleaning or detergent and distilled wash water is allowed;
- (11) Category B presentation of the reporting and deliverables package as designated in Volume I of the NYSDEC ASP is required for pre and post construction samples and verification samples;
- (12) Prior to any deviations from the agreed protocols, the ENGINEER's QA/QC office must be notified;

Section 02506 Sampling and Analysis

- (13) Training requirements for new employees and refresher training requirements for current employees;
- (14) Explanation of sampling equipment and maintenance;
- (15) Criteria for laboratory selection and audit format;
- (16) Field audit criteria;
- (17) Record maintenance and archive methods, e.g., field notebooks, audit reports;
- (18) Work plan/report checking and review procedures; and
- (19) Materials handling and regulatory compliance procedures.

Analytical Results:

- Submit a hard copy from the laboratory of analytical results for the verification samples, including QA/QC summaries, within 24 hours of verified time of sample receipt (VTSR). Submit a hard copy from the laboratory of analytical results for other types of samples, including QA/QC summaries, within 72 hours of verified time of sample receipt (VTSR) Analytical results shall be reported on a dryweight basis.
- (2) Submit the ASP Category B reporting and deliverable package in CLP format within 30 days of VTSR.
- (3) Submit monthly Verification Sample Results Summary and Characterization Sample Results Summary. The Verification Sample Results Summary shall present the following information in tabular format on 8½" by 11":
 - -Table title with project and site information;
 - -Contractor's sample identification;
 - -Sample location;
 - -Sample depth below original ground surface;
 - -Final sample results in mg/kg;
 - -Laboratory sample data package identification;
 - -Laboratory sample identification; and
 - -A column for comments.

The Characterization Sample Results Summary shall present the following in tabular format on 81/2" by 11" paper:

- -Table title with project and site information;
- -Contractor's ample identification
- -Sample location:
- -Soils represented by sample (location an quantity);
- -Sample results in mg/L;
- A column indicating if the soils represented by the sample are hazardous;
- -Laboratory sample data package identification;
- -Laboratory sample identification; and
- -A column for comments.

These summaries shall be prepared using MS Excel for Windows or a similar spreadsheet program. One electronic copy and three hard copes of the completed summaries shall be provided to the Engineer within 40 days of the VTSR of the last sample collected for the particular summary. Electronic copies shall be submitted on a 3.5" diskettes.

C. QUALITY CONTROL

Samples will be considered environmental samples, not waste samples, and require strict adherence to QA/QC requirements for environmental samples. 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. Field duplicate 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.

Laboratory results that are not within acceptable QA/QC ranges as stated in the CONTRACTOR's approved QA/QC Plan shall require resampling and reanalysis of the affected samples at no additional cost to the OWNER. This shall include resampling and reanalysis; further excavation; backfilling; and top soiling, seeding, and mulching. A maximum 24-hour turnaround time is required on additional verification sampling required. Resampling and reanalysis as stated in this paragraph shall not increase the contract time for completion of the work.

PART 2 - PRODUCTS

2.1 MATERIALS

None

Issue: 10/1/03

PART 3 - EXECUTION

3.1 SAMPLING FREQUENCY

- **A.** 1. Minimum verification sampling frequency shall be
 - For excavations less that 20 ft in perimeter, at least one bottom sample biased in the direction of surface runoff
 - (ii.) For excavations 20 to 300 ft in perimeter, one sample from the top of each sidewall for every 30 linear feet of sidewall and one sample from the excavation bottom for every 900 square feet of bottom area.
 - (iii.) For larger excavations, sampling frequency may be reduced if documentation acceptable to the Engineer and NYSDEC is provided and specifies why the sample frequency was considered adequate.
 - 2. Minimum Pre-construction and post-construction sampling frequency shall be one for each 500 square feet of areas in which soil handling takes place.

- **B.** Volatile bottom samples taken within 24 hours shall be taken from the zero to 6 inch interval. After 24 hours and before 2 weeks, volatile bottom samples shall be taken from 6" 12" depth interval. For excavation that have been open more than 2 weeks, volatile sample depth for bottom samples should be taken from the interval within a 0-2 foot core that registers the highest field measurement reading.
- **C.** Post excavation sampling locations and depths shall be biased toward the areas & depths of highest concentration during previous sampling episodes unless field indicators such as field instruments measurements or evidence of visual contamination indicate that other locations and depths may be heavily contaminated.
- **D.** Soil samples taken below the water table should be taken using appropriate sediment sampling methods.

END OF SECTION 02506

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division-1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Article includes the development and implementation of a Materials Handling Plan for the handling, transportation, and disposal of the following:

Non-Hazardous Petroleum-Contaminated Soil (Section 02504) Including Residuals from Decontamination

1.3. SUBMITTALS

- **A.** To comply with this Section, the following items shall be submitted:
 - Completed Materials Handling Plan.
 - Completed manifest or bill of lading for each load of material removed from the site.

1.4. MATERIALS HANDLING PLAN

- **A.** The Materials Handling Plan shall, at a minimum, include:
 - The Contractor's procedures for safely handling contaminated materials.
 - 2. The location and layout of the Contractor's on-site staging areas for dewatering, temporarily holding and/or storage of contaminated materials.
 - Layout drawing showing details of the on-site truck decontamination station and proposed methods of decontaminating trucks and equipment, and of preventing the tracking of contaminated materials from contaminated areas to noncontaminated areas.
 - 4. The identification of the Contractor's proposed waste transporter(s), including a commitment letter(s) from properly licensed and insured hauler/transporter(s). Provide additional information as follows:
 - Name and EPA identification number.
 - b. Address.

- Name of responsible contact for the hauler.
- Telephone number for the contact.
- e. List of types and sizes of all transport vehicles and equipment to be used.
- f. A description of proposed transportation methods and procedures for hauling waste material, including type of vehicles that will be used for each type of waste.
- Any and all necessary permit authorizations for each type of waste transported.
- Previous experience in performing the type of work specified herein.
- Proposed methods of removing free-liquids from materials removed from the site.
- j. Proposed accident prevention policy.
- 5. The identification of the Contractor's proposed disposal facility(ies), including a commitment letter from the facility(ies) indicating that they have the capacity to accept the estimated volume of waste material and stating it will be open for business during the Contract duration and will be able to accept the type of materials specified herein. The Contractor shall also submit a list of permitted alternative facilities to be utilized in the event the facility(ies) initially submitted cease to accept project waste materials.
 - **a.** The Contractor shall submit the following information regarding the off-site disposal facility or facilities where he is proposing to take the materials removed from the site.
 - 1. Facility name and EPA identification number, if applicable.
 - Facility location.
 - 3. Name of responsible contact for the facility.
 - 4. Telephone number for contact
 - 5. Signed letter of agreement to accept waste as specified in this Contract.
 - 6. Unit of measure utilized at facility for costing purposes.
 - Type of wastes which each proposed off-site disposal facility is permitted to accept.
 - A listing of all permits, licenses, letters of approval, and other authorizations to operate, which are currently held and valid for the proposed facility as they pertain to receipt and management of wastes derived from this Contract.

- All proposed off-site disposal facilities shall be acceptable to the NYSDEC and shall be approved in writing, prior to shipment of any waste materials off-site.
- 10. The name, address, and telephone number of the contact for the Contractor's proposed analytical laboratory.
- 11. The name and experience of the Contractor's sampling technician.

1.5 PROJECT CONDITIONS

A. Conditions of Use: Keep temporary services and facilities clean and neat in appearance. Operate in a safe and efficient manner. Take necessary fire prevention measures. Do not overload facilities, or permit them to interfere with progress. Do not allow hazardous dangerous or unsanitary conditions, or public nuisances to develop or persist on the site.

PART 2 - PRODUCTS

2.1 MATERIALS

A. General: Provide new materials; if acceptable to the Engineer, undamaged previously used materials in serviceable condition may be used. Provide materials suitable for the use intended.

2.2 EQUIPMENT

- A. Provide watertight containers for hazardous materials and other containers as required in the USDOT Regulations and the regulations in the states within which the materials are to be hauled.
- B. Utilize a full-size certified scale suitable for the determination of the weight of materials removed from the site.
 - The Contractor shall provide a scale ticket from the certified scale prior to and after each load is loaded onto the truck.
 - The scale shall be certified by a licensed firm and adequate for the climate. The
 facility shall meet the applicable requirements of the National Bureau of Standards
 Handbook 44 for commercial weighing. The scale shall have sufficient capacity to
 measure all quantities for payment.
 - 3. The Contractor shall assure observance of the legal load limits on all public roads.

PART 3 - EXECUTION

3.1 MATERIAL HANDLING

A. The Contractor shall arrange for the prompt transport and disposal of all material to be removed from the project site. Containerized wastes shall not remain on-site more than ten (10) calendar days.

- **B.** The Contractor shall institute procedures to protect site personnel and the public from site materials and to prevent additional contamination.
- C. "Contaminated soils" are those excavated soils that do not meet soil cleanup objectives. "Contaminated soils" shall be disposed of at a landfill facility that is permitted to accept such material.
- D. The Contractor shall minimize the spread of contamination on-site through the use of common routes for the movement of contaminated material and by strict implementation of appropriate and effective decontamination methods and procedures.

3.2. OFF-SITE TRANSPORTATION AND DISPOSAL

A. General

- The Contractor shall organize and maintain the material shipment records/manifests required by the Federal Resource Conservation and Recovery Act (RCRA) (Public Law 94-580), the State of New York and the state where the treatment/disposal facility is located. Manifests shall be provided for all hazardous materials, and bills of lading for all non-hazardous materials, leaving the project site.
- The Contractor shall coordinate the schedule for truck arrival and material deliveries
 at the project site to meet the project schedule. The schedule shall be compatible
 with the availability of equipment and personnel for material handling operations at
 the project site.
- The Contractor shall periodically inspect all routes that the vehicles take from the project site to the disposal facility to ensure that no leakage or tracking of contaminated materials has occurred.

B. Staging Areas

- The Contractor shall provide staging areas. These staging areas will be to stage contaminated material. The locations of all staging areas will be provided in the Materials Handling Plan and shall be reviewed by the Engineer.
- Each staging area shall be constructed in accordance with Section 02011
- All staging areas shall be constructed in such a way as to prevent the spread of contamination to the surrounding soils, groundwater or off-site areas.

C. Truck Decontamination Station

All vehicles leaving the project site shall be decontaminated at a Truck
Decontamination Station. The Contractor shall inspect all vehicles leaving the
project site to ensure that contaminated materials adhering to the wheels or
undercarriage are removed prior to the vehicle leaving the site.

- The Contractor shall install one or more decontamination pads in accordance with Section 02011
- All vehicles and equipment shall be cleaned of contaminated soil utilizing potable water applied with high-pressure wash equipment. Wash water shall be considered Construction Water.

D. Hauling

- 1. The Contractor shall not deliver hazardous waste to any facility other than the disposal facility(ies) listed on the shipping manifest.
- The Contractor shall coordinate manifesting, placarding of shipments, and vehicle
 decontamination. All quantities shall be measured and recorded prior to leaving the
 construction site and again upon arrival at the disposal facility. If any deviation
 between the two records occurs, the matter is to be reported immediately to the
 Engineer.
- The Contractor shall be held responsible for any and all actions necessary to remedy situations involving material spilled in transit or contaminated materials and dust tracked off-site. This cleanup shall be accomplished at the Contractor's expense.
- The Contractor shall be responsible for inspecting the access routes for road conditions, overhead clearance, and weight restrictions prior to commencement of hauling.
- The Contractor shall ensure that trucks are protected against contamination by properly covering and lining them with compatible material or by decontaminating them prior to any use other than hauling contaminated materials.
- The Contractor shall only use the transporter(s) identified in the Materials Handling Plan.
- The Contractor shall develop, document, and implement a policy for accident prevention.
- 8. The Contractor shall not combine contaminated materials from other projects with material from the project site.
- 9. Where hazardous waste is present, the Department will provide a hazardous waste generator identification number for use on the manifest and will sign the manifest as the generator.
- 10. In the event that the identified transporter(s) ceases operations, it is the Contractor's responsibility to locate an alternate transporter. Alternate transporter(s) shall be submitted to the Engineer for review in the same manner and with the same requirements as the original transporter(s). This shall be done with no extra cost or delay to the Owner.

E. Off-Site Disposal

- The Contractor shall use only the disposal facility(ies) and the permitted solid waste landfills identified in the Materials Handling Plan.
- The Contractor shall be responsible for acceptance of the material at an approved disposal facility, for ensuring that the facility is properly permitted to accept the stated material, and that the facility provides the stated treatment and/or disposal services.
- The Engineer reserves the right to contact and visit the disposal facility and regulatory agencies to verify the agreement to accept the stated material and to verify any other information provided. This does not in any way relieve the Contractor of his responsibilities under this Contract.
- 4. In the event that the identified disposal facility ceases to accept the stated materials or the facility ceases operations, it is the Contractor's responsibility to locate an alternate permitted facility(ies) for accepting materials. The Contractor is responsible for making the necessary arrangements to utilize the facility(ies), and the alternate facility(ies) shall be submitted to the Engineer for review in the same manner and with the same requirements as for the original facility(ies). This shall be done with no extra cost or delay to the Owner.

F. Record Keeping

- The Contractor shall obtain manifest forms, material code numbers, and complete
 the shipment manifest records as required by 6 NYCRR Part 372 and other
 appropriate regulatory agencies.
- Manifests and bills of lading shall include: material type (Code No.) if applicable; quantity in units of weight and volume; results of any sampling performed on each specific load; as well as all additional information required under the applicable regulations.
- 3. Manifests and bills of lading shall serve as a record of the chain of custody of each load. The manifests and bills of lading shall be signed by each party as the material is accepted and shall show the dates that the material is released by the Contractor and accepted by the transporter and released by the transporter and accepted by the disposal facility.
- 4. Copies of each manifest and bill of lading shall be submitted to the Engineer within four (4) business days following shipment, and within three (3) business days after notification of receipt by the disposal facility. Any discrepancies shall be reported immediately to the Engineer and shall be resolved by the Contractor to the satisfaction of the Engineer.

G. Construction Water Handling

1. Construction water treatment and discharge shall be in accordance with all applicable Federal and State regulations and in accordance with Section 02220 and Section 02011.

END OF SECTION 02507

SECTION 02511 CONSTRUCTION WATER MANAGEMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division-1 Specification Sections, and Attachment D - Schenectady POTW Effluent Limitations and Monitoring Requirements apply to this Section.

1.2 **SUMMARY**

- This Section includes the collection, handling, storage, treatment, sampling, analysis, and disposal of construction water. Construction water shall be defined as that water which exists in soil excavation work areas or falls within the work area as precipitation.
- В. Work area shall be that area of the site, identified by the Contractor in the Construction Water Management Plan, to which operations will be confined. The Contractor shall install and maintain physical barriers to separate water within the work area from water outside of the work area.

TEMPORARY ELECTRIC POWER 1.3

The Contractor shall provide, as necessary, all power required to accomplish the required dewatering, and shall remove all temporary power facilities upon completion of required excavation and backfilling.

1.4 TEMPORARY CONSTRUCTION

The Contractor shall provide, as necessary, all temporary construction necessary to accomplish A. the required dewatering, including all materials, equipment, and construction labor, and shall remove all temporary construction upon completion of required excavation and backfilling except as specifically allowed in writing by the Engineer

1.5 **SUBMITTALS**

A. Construction Water Management Plan

The Contractor shall submit a Construction Water Management Plan, consistent and in accordance with the Sampling and Analysis Plan (Section 02506). This Plan shall describe the means and methods of dewatering the required areas prior to excavation and shall include a description of materials, locations, depths, discharge, and pre-treatment (if necessary) to be utilized in the collection and disposal of removed waters.

B. Sampling and Testing

Issue: 10/1/03

Results of sampling for all construction water discharged from the site, in accordance with the Excavation Dewatering Plan (Section 02220) and Sampling and Analysis (Section 02506).

> Construction Water Management Section 02511

1.6 PROJECT CONDITIONS

A. Conditions of Use: Keep temporary services and facilities clean and neat in appearance. Operate in a safe and efficient manner. Take necessary fire prevention measures. Do not overload facilities, or permit them to interfere with progress. Do not allow hazardous dangerous or unsanitary conditions, or public nuisances to develop or persist on the site.

PART 2 - PRODUCTS

2.1 MATERIALS

A. General: Provide new materials; if acceptable to the Engineer, clean and undamaged previously used materials in serviceable condition may be used. Provide materials suitable for the use intended.

2.2 CONSTRUCTION WATER MANAGEMENT PLAN

- **A.** The Construction Water Management Plan shall, at a minimum, include:
 - 1. Proposed methods of handling, treating, sampling, and disposal of construction water and residuals.
 - 2. Proposed methods of handling, treating, sampling, and disposal of excavation dewatering water and residuals (specifically and by reference to Section 02220).
 - 3. Layout drawings showing the details of the proposed treatment process; the proposed limits of the work area and the proposed methods for hydraulically isolating the work area.

2.3 PERFORMANCE REQUIREMENTS

- **A.** Construction Water and Dewatering Water shall be required to meet the City of Schenectady Wastewater Treatment Plant Effluent Limitations prior to disposal to the City sewer system, or to meet the requirements of the NYSDEC and/or disposal facility if other means of disposal are determined.
- **B.** If construction water and/or excavation dewatering water do not meet the City of Schenectady Wastewater Treatment Plant Effluent Limitations, than Construction Water and Dewatering Water shall be treated prior to disposal. Treatment shall include filtration of suspended solids, oil/grease separation and carbon adsorption as required to meet disposal criteria of the NYSDEC and/or the City of Schenectady Wastewater Treatment Plant Effluent Limitations.
- **C.** Treated water shall be stored in a frac tank (20,000 gal), sampled and analyzed prior to disposal. Contractor will be required to store water until discharge limits are met as approved by the Engineer and the City of Schenectady and the NYSDEC.
- **D.** Water treated on-site shall be stored on-site while awaiting the results of sample analysis.

2.4 TREATMENT FACILITIES

A. If required for disposal on the basis of testing and performance criteria, the Contractor shall provide, operate and maintain a complete treatment system, as necessary, to comply with this Section 02511. The treatment process shall be coordinated, and modified as necessary, to treat the wastes generated by the successful decontamination process.

Issue: 10/1/03 Revised: 4/20/04 Construction Water Management Section 02511

- The treatment system shall include adequate controls, instrumentation and alarms to provide proper operation under all conditions which may occur at the site. Safe and orderly shutdown shall occur automatically under emergency conditions (such as temporary loss of electrical power).
- The treatment system shall operate properly under all ambient weather conditions which occur at the site during the Contract Time Period.
- 3. The Contractor shall provide sufficient storage to allow for sampling of treated water and to allow for sample turn-around time prior to release.

PART 3 - EXECUTION

3.1 DISPOSAL

- A. Construction Water and Dewatering Water shall be discharged to the City of Schenectady Wastewater Treatment Plant and City Sewer System This discharge shall meet all requirements of the City of Schenectady Wastewater Treatment Plant Effluent Limits in Attachment A prior to release.
- **B.** Residuals from the treatment of construction water shall be treated and disposed of as "Residuals from Decontamination" in accordance with the Section 02507 entitled "Materials Handling".

The Contractor shall be responsible for the control of runoff and erosion caused by precipitation which falls on-site, but outside the work area. To the extent practical, runoff shall be allowed to follow natural drainage paths.

END OF SECTION 02511

PART 1 - GENERAL

1.1 Summary

A. The Contractor shall seed and mulch all areas that have been disturbed by the Contractor's operations or that are in a barren condition, and shall provide means of temporary soil erosion prevention as determined by the Engineer. All site areas affected by the Contractor's activities, and barren areas East of the Western Fill slope shall be considered.

1.2 SUBMITTALS

- A. Quality Control Submittals:
 - 1.Product Data:
 - Submit product data on fertilizer and seed mixture.
 - b. Submit vendor's certified analysis for each grass seed mixture required, stating botanical and common name, percentages by weight, percentages by purity, germination, and weed seed.
- **B.** Submit description of planned mulching techniques and corresponding manufacturer's installation recommendation.

1.3 QUALITY ASSURANCE

- **A.** All landscaping work shall be performed by one (1) Contractor, with proven experience in this field.
- **B.** Package standard products with the manufacturer's certified analysis.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Deliver packaged materials in containers showing weight, analysis and name of manufacturer. Protect materials from deterioration during delivery, and while stored at site.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Seed:

Issue: 10/1/03

- 1.Seed shall be fresh, clean, new-crop seed mixed in the proportions specified for species and variety, conforming to Federal and State Standards.
- 2.Use the following standard mixture, unless a special mixture is otherwise indicated or approved by the Engineer:

Seeding Section 02931 Page 1 of 2

Species	% By Purity	% By Weight	%Germination
Creeping Red Fescue	40	95	85
Tall Fescue	30	9 5	85
Kentucky Bluegrass	15	85	95
Perennial Rye	10	95	85
White Clover	5	80	80

Weed seed content shall not exceed 0.25%.

B. Mulch:

1. Clean straw for slopes less than 4H:1V, consisting of stalks of oats, wheat, rye, or other approved crops which are free of noxious weed seeds. Weight shall be based on a fifteen (15) percent moisture content.

PART 3 - EXECUTION

3.1 PREPARATION

A. Water dry topsoil to depth of 4 inches at least 48 hours prior to seeding to obtain a loose friable seed bed.

3.2 SEEDING

- A. Apply seed when wind velocities are less than five (5) miles per hour.
- B. Apply seed at 5 Ibs. per 1000 square feet.
- C. Roll seeded area with roller weighing no more than 150 Ibs. per foot of roller width.

3.3 MULCHING

- **A.** Spread straw uniformly over seeded area with 75% ground coverage and at least 1-1/2 inches loose depth.
 - 1.If, in the opinion of the Engineer, wind will disrupt the mulching, apply asphalt emulsion at a rate of 10 gallons per 1000 square feet.

3.4 HYDROSEEDING

- **A.** Mix specified seed and pulverized mulch in water, using equipment specifically designed for hydroseed application. Continue mixing until uniformly blended into homogeneous slurry suitable for hydraulic application.
- **B.** Apply slurry uniformly to all areas to be seeded. Rate of application as required to obtain specified seed sowing rate.

END OF SECTION 02931

Attachment A **Standard Clauses New York State Contracts**

APPENDIXA

LEGALREQUIREMENTS APPLICABLETOIFBsANDRFPs

AppendixA

LegalRequirementApplicabletoIFBsandRFPs

AnumberoffederalandNewYorkStatelaws,rules,andregulations impactonNYSprocurements.TheNYSDepartmentofLawsummarizessome oftheserequirementsintoAppendixA,StandardClausesforAllNewYorkState Contracts,whichistobeattachedtoeachstatecontract.

Certificationsforsome provisions are also required. Samples of certification statements are included in the appendix for the following:

Exhibit1 Non-CollusiveBiddingCertification

Exhibit2 NonDiscriminationinEmploymentinNorthernIreland

STANDARDCLAUSESFOR HYSCONTRACTS APPENDIXA

STANDARDCLAUSESFORNYSCONTRACTS

The parties to the attached contract, license, lease, amendmentor other agreement of any kind (hereinafter, "the cont ract" 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, licenser, licensee, lessor, lesse corany other party):

- 1. <u>EXECUTORY CLAUSE</u>. In accordance with Section 41 of the StateFinanceLaw,theStateshallhavenoliabilityunderthiscontractto the Contractor or to anyone else beyond funds appro priated and availableforthiscontract.
- 2. NON-ASSIGNMENTCLAUSE. InaccordancewithSection138of the State Finance Law, this contract may not be assigned by the Contractor or its right, title or interest therein assigned, transferred, conveyed, subletorotherwisedisposed of without the previous consent, in writing, of the State and any attempts to assign the contract without the State's written consent are null and void. The Contractor may, however, assign its right to receive payment without the State's prior written consentunless this contract concerns Certificates of Participation pursuant to Article 5 Aofthe State Finance Law.
- 3. COMPTROLLER'SAPPROVAL. Inaccordance 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 \$15,000 (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 \$10,000, its hall not be valid, effective or binding upon the State until it has been approved by the State Comptroller and filed inhis of fice. Comptroller's approval of contracts let by the Office of General Services is required when such contracts exceed \$30,000 (State Finance Law Section 163.6.a).
- 4. WORKERS'COMPENSATIONBENEFITS .Inaccordance 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'CompensationLaw.
- 5. NON-DISCRIMINATION REQUIREMENTS. To the extent requiredby Article 15 of the Executive Law (also known as the Human Rights Law) and all other State and Federal statutory and constitutionalnon-discrimination provisions, the Contractor will not discriminate against any employee or applicant for employment because of race, creed, color, sex, national origin, sexual orientation, age, disability, genetic predisposition or carrier status, or marital status. Furthermore, inaccordancewithSection220-eoftheLaborLaw,ifthisisacontract fortheconstruction, alteration or repair of any public building or public workorforthemanufacture,saleordistributi onofmaterials, equipment or supplies, and to the extent that this contract shall be performed within the State of New York, Contractor agrees that neither it not 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 serv contractasdefinedinSection230oftheLaborLaw,then.inaccordance with Section 239 thereof, Contractor agrees that neither it nor its subcontractorsshallbyreasonofrace, creed, color, national origin, age. sexordisability: (a) discriminate inhiring 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. Contractor is subject to fines of \$50.00 per person per day for any violation of Section 220 -e o Section 239 as well as possible termination of this contract and forfeiture of all moneys due hereunder for a second or subsequent violation.

- 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 northeemployeesofitssubcontractors 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.
- 7. NON-COLLUSIVEBIDDINGCERTIFICATION. Inaccordance with Section 139 -d of the State Finance Law, if this contract was awardedbaseduponthesubmission of bids, Contractor warrants, under penalty of perjury, that its bid was arrived at independently and without collusion aimed at restricting competition. Contractor further warrants 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 FinanceLaw, if this contract exceeds \$5,000, the Contractor agrees, as a material condition of the contract, that neither the Contractor nor any substantiallyownedoraffiliatedperson, firm, partnershipor has participated, is participating, or shall participate in an international boycott in viola tion of the federal Export Administration Act of 1979 (50USC App. Sections 2401 etseq.) or regulations the reunder. If such Contractor, orany of the aforesaid affiliates of Contractor, is convicted orisotherwise found to have violated said laws or regulation supon 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, determinationordispositionofappeal(2NYCRR105.4).
- 9. SET-OFF RIGITS. 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 Cont—ractor 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 Contractorshall 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 calendary earin 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.

Page 1

STANDARDCLAUSESFOR HYSCONTRACTS APPENDIXA

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 anyway adversely affect, the State's right to discovery in any pending or future litigation.

- 11. IDENTIFYING INFORMATION AND PRIVACY NOTIFICATION. (a) FEDERAL EMPLOYER IDENTIFICATION NUMBER and/or FEDERAL SOCIAL SECURITY NUMBER. All invoices or New York State standard vouchers submitted for payment forthesalcofgoodsorservicesorthelease of realor personal property to a New York State agency must include the payee's identification number, i.e., theseller's or lessor's identification number. The number is either the payee's Federal employer identification number or Federal social security number, or both such numbers when the payee has both such numbers. Failure to include this number or numbers may delay payment. Where the payee does not have such number or numbers, the payee, o nits invoice or New York State standard voucher. 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 abovepersonalinformation from a seller of goods or services or alessor 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)Thepersonalinformation 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 contractor lease. The information is maintained in New York State's Central Accounting System by the Director of Accounting Operations, Office of the State Comptroller, AESOB, Albany, New York 12236.
- EQUAL EMPLOYMENT OPPORTUNITIES FOR MINORITIES AND WOMEN. In accordance with Section 312 of the Executive Law, if this contract is: (i) a written agreement or purchase cess of order instrument, providing for a total expenditure in ex-\$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 projectiscommitted to expend or does expend funds for the acquisition, construction, demolition, replacement, major repair or renovation of real propertyandimprovementsthereonforsuchproject, then:
- (a) The Contractor will not discriminate against employees or applicantsforemploymentbecauseofrace, creed, color, national origin, sex, age, disability or marital status, 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, upgrad ings, demotion, transfer, layoff, or termination and rates of pay or other forms of compensation;

- (b) atther equest 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
- (e) 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, disabilityormarital status.

Contractor will include the provi sions 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; or (iii) banking services, insurance policies or the sale of securities. 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 section. 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 comp ly with all duly promulgated and lawful rules and regulations of the Governor's Office of Minority and Women's BusinessDevelopmentpertaininghereto.

- 13. <u>CONFLICTING TERMS</u>. 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. <u>GOVERNINGLAW</u>. This contract shall be governed by the laws of the State of New York except where the Federal supremacy claus requires otherwise.
- 15. <u>LATE PAYMENT.</u> Timeliness of payment and any interest to be paid to Contractor for late payments hall be governed by Article 11 Aof the State Finance Lawtothe extent required by law.
- 16. NO ARBITRATION. Disputes involving the is contract, including the breach or alleged breach thereof, may not be submitted to binding arbitration (except where statutorily authorized), but must, instead, be heardinacourtofcompetentjurisdiction of the State of New York.
- 17. SERVICE OF PROCE SS. 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) calendard ay safter service here under is complete in which to respond.

Page 2 May,2003

STANDARDCLAUSESFOR NYSCONTRACTS APPENDIXA

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 State Finance Law §165. (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 th 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; othe twise, the bid may not be considered responsive. Under bid decreatifications, proof of qualification for exemption will be the responsibility of the Contractor to meet with the approval of the State.

- 19. MACBRIDE 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 bus 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 ACTOF 1992. It is the policy of New York State to maximize oppor tunities 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:

NYSDepartmentofEconomicDevelopment DivisionforSmallBusiness 30SouthPearlSt --7 thFloor Albany,NewYork12245 Telephone:518- 292-5220

Adirectory of certified minority and women-owned business enterprises is a vailable from:

NYSDepartmentofEconomicDevelopment DivisionofMinorityandWomen'sBusinessDevelopment 30SoutbPearlSt --2ndFloor Albany,NewYork12245 http://www.empire.state.ny.us

The Omnibus Procurement Actof 1992 requires that by signing this bid proposal or contract, as applicable. Contractors certify that whenever the total bid amount is greater than SI 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 the property of the suppliers of the suppliers and the suppliers and suppliers
- (b)TheContractorhascompliedwiththeFederalEqualOpportunityAct of1972(P.L.92 -261),asamended;

(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)TheContractoracknowledgesnoticethattheStatemayseektoobtain offset credits from foreign countries as a result of this contract and agreestocooperatewiththeStateintheseefforts.

- 21. RECIPROCITYANDSANCTIONSPROYISIONS. Biddersare 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) require that they be denied contracts which they would otherwise obtain. NOTE: As of May 15, 2002, the list of discriminatory jurisdictions subject to this provision includes the states of South Carolina, Alaska, West Virginia, Wyoming, Louisiana and Hawaii. Contact NY SDepartment of Economic Development for a current list of jurisdictions subject to this provision.
- 22. PURCHASES OF APPAREL. In accordance with State Finance Law162(4 -a), the State shall not purchase any apparel from any vendor unable or unwilling to crify that: (i) such apparel was manufactured in compliance with all applicable labor and occupational safety laws, including, but not limited to, child labor laws, wage and hours laws and workplace safety laws, and (ii) vendor will supply, with its bid (or, if not a bid situation, prior to or at the time of signing a contract with the State). if known, the names and addresses of each subcontractor and a list of all manufacturing plants to be utilized by the bidder.

Page 3 May,2003

NON-COLLUSIVEBIDDINGCERTIFICATIONREQUIREDBY SECTION139-DOFTHESTATEFINANCELAW

SECTION139-D, Statement of Non-Collusion in bidstothe State:

BY SUBMISSION OF THIS BID, BIDDER AND EACH PERSON SIGNING ON
BEHALFOFBIDDERCERTIFIES, AND INTHECASE OF JOINT BID, EACH PARTY
THERETO CERTIFIES AS TO ITS OWN ORGANIZATION, UNDER PENALTY OF
PERJURY.THATTOTHEBESTOFHIS/HERKNOWLEDGEANDBELIEF:

- [1] The prices of this bid have been arrived at independently, without collusion, consultation, communication, or agreement, for the purposes of restricting competition, as to any matter relating to such prices with any other Bidderor with any competitor;
- [2]Unlessotherwiserequiredbylaw, 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] NoattempthasbeenmadeorwillbemadebytheBiddertoinduceanyotherperson, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition.

A BID SHALL NOT BE CONSIDERED FOR AWARD NOR SHALL ANY AWARD BE MADE WHERE [1], [2], [3] ABOVE HAVE NOT BEEN COMPLIED WITH; PROVIDED HOWEVER, THAT IF IN ANY CASE THE BIDDER(S) CANNOT MAKE THE FOREGOING CERTIFICATION, THE BIDDER SHALL SO STATE AND SHALL FURNISH BELOW A SIGNED STATEMENT WHICH SETS FORTH IN DETAIL THERE AS ONSTHERE FORE:

[AFFIXADDENDUMTOTHISPAGEIFSPACEISREQUIREDFOR STATEMENT.]

Subscribed to i	ınder penalty (of perjury under the	laws of the State of N	lew York, this
dayof	,20	_astheactanddeedo	fsaidcorporationofpa	artnership.

Exhibit1Non-CollusiveBiddingCertification2	
IFBIDDER(S)(ARE)APARTNERSH	IP,COMPLETETHEFOLLOWI
NAMESOFPARTNERSORPRINCII	PALS LEGALRESIDENCE
FBIDDER(S)(ARE)ACORPORATI	ON,COMPLETETHEFOLLOW
	ON,COMPLETETHEFOLLOW LEGALRESIDENCE
NAME	
NAME President:	
NAME President: Secretary:	
NAME President: Secretary: Creasurer:	
IFBIDDER(S)(ARE)ACORPORATI NAME President: Secretary: Treasurer: President: Secretary:	

Exhibit1Non-CollusiveBiddingCertification-3

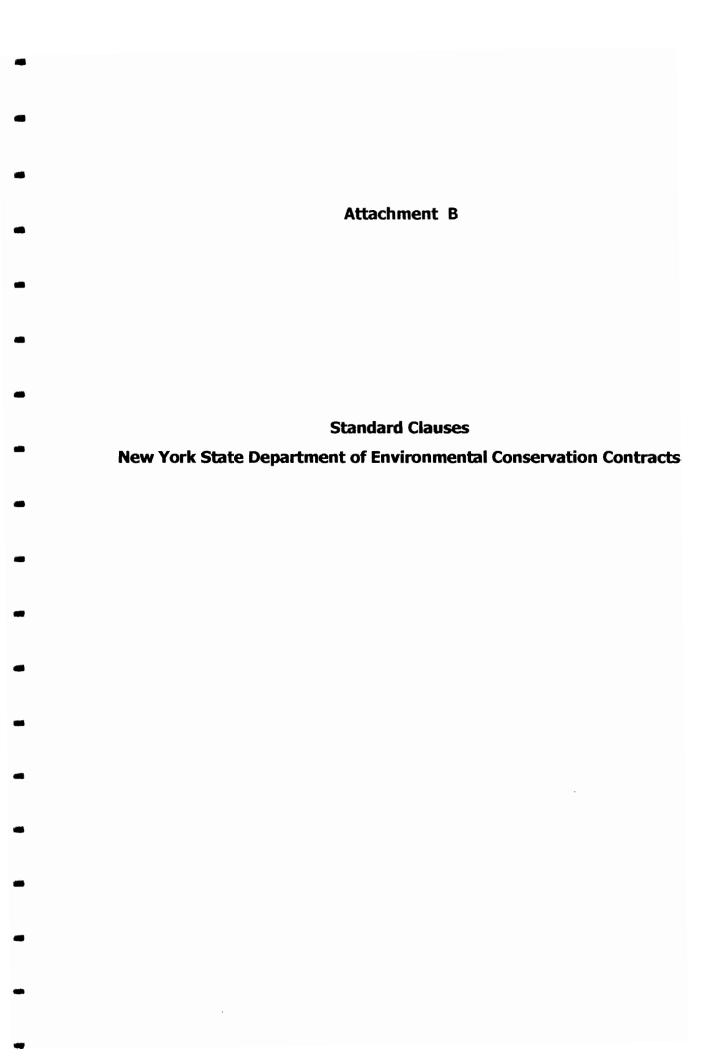
IdentifyingData

PotentialContractor			
Address			
Street			
City, Town	n,etc.		
Telephone		Title	
Ifapplicable,ResponsibleCo	orporateOfficer		
Name		Title	
Signature			
Jointorcombinedbidsbyc	ompaniesorfirmsm	ustbecertifiedonbehalfofea	chparticipant.
Legalnameofperson, firmore	corporation	Legalnameofperson.f	irmorcorporation
By			
Name		Name	
Title		Title	
Address		Address	
Street		S	Street
City	State	 City	State

${\bf Exhibit 2 Non Discrimination in Employment in Northern Ireland}$

NONDISCRIMINATIONINEMPLOYMENTINNORTHERNIRELAND: MACBRIDEFAIREMPLOYMENTPRINCIPLES

In accordance with section 165 of the State Finance Law, the bidder, by submission of this bid certifies that it or any individual or legal entity in which the bidder holds a 10% or greaterownershipinterest, oranyindividualorlegalentitythatholdsa 10% orgreaterownership inthebidder, either: (answeryesornotooneorbothofthefollowing, asapplicable). (1)hasbusinessoperationsinNorthernIreland; Yes___orNo___ ifyes: (2) 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 nondiscrimination in employment and freedom of workplace opportunity regarding such operations in Northern Ireland, and shall permit independent monitoring of their compliance with suchPrinciples. Yes___orNo___ Signature



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").

- 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 Holdharmless 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.
- (3) To the extent that the work under this contract requires access to personal, proprietary or confidential business or financial data of persons or other companies, and as long as such data remains proprietary or confidential, the Contractor shall protect such data from unauthorized use and disclosure and agrees not to use it to compete with such companies.
- (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.
- 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.
- 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 sitespecific 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. Article 15-A Requirements The terms contained in this clause shall have the definitions as given in, and shall be construed according to the intent of Article 15-A of the Executive Law, 5 NYCRR Part 140, et. seq., Article 52 of the Environmental Conservation Law and 6 NYCRR Part 615, et. seq., as applicable, and any goals established by this clause are subject to the intent of such laws and regulations.
- (a) If the maximum contract price herein equals or exceeds \$25,000, and this contract is for labor, services, supplies, equipment, or materials; or
- (b) If the maximum contract price herein equals or exceeds \$100,000 and this contract is for the acquisition, construction, demolition, replacement, major repair or renovation of real property and improvements thereon; then
- (c) The affirmative action provisions and equal employment opportunity provisions contained in this paragraph and paragraphs (d) and (e) of this clause shall be applicable within the limitations established by Executive Law §§312 and 313 and the applicable regulations.

(1) The Contractor is rec	quir	ed to make	good fa	ith efforts
to subcontract at least			_% of t	he dollar
value of this contract	to	Minority	Owned	Business
Enterprises (MBEs) and	at l	east		% of such
value to Women Owned	lΒι	isiness En	erprises	(WBEs).

- (2) The Contractor is required to make good faith efforts to employ or contractually require any Subcontractor with whom it contracts to make good faith efforts to employ minority group members for at least ______% of, and women for at least ______% of, the workforce hours required to perform the work under this contract.
- (3) The Contractor is required to make good faith efforts to solicit the meaningful participation by enterprises identified in the NYS Directory of Certified Businesses provided by:

Empire State Development Corp.

Div. Minority & Women's Business Development
30 South Pearl Street

Albany, New York 12245

Phone: (518) 292-5250 Fax: (518) 292-5803

and

Empire State Development Corp. 633 Third Avenue
New York, NY 10017
Phone: (212) 803-2414

Fax: (212) 803-3223

internet: www.empire.state.ny.us\esd.htm

- (d) The Contractor agrees to include the provisions set forth in paragraphs (a), (b) and
- (c) above and paragraphs (a), (b), and (c) of clause 12 of Appendix A in every subcontract in such a manner that the provisions will be binding upon each Subcontractor as to work under such subcontract. For the purpose of this paragraph, a "subcontract" shall mean an agreement providing for a total expenditure in excess of \$25,000 for the construction, demolition, replacement, major repair, renovation, planning or design of real property and improvements thereon in which a portion of the Contractor's obligation under a State contract is undertaken or assumed.
- (e) The Contractor is required to make good faith efforts to utilize the MBE/WBEs identified in the utilization plan to the extent indicated in such plan, and otherwise to implement it according to its terms. The Contractor is requested to report on such implementation periodically as provided by the contract, or annually, whichever is more frequent.

VIII. 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.
- IX. 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 agency 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 agency 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:

(Name and Title)	•
(Address)	
Telephone)	
The designated appeal individ is:	ual to review decisions
(Name and Title)	
(Address)	
(Telephone)	

(

The Chair of the Contract Review Committee is:

Department of Environmental Conservation Richard K. Randles, Chair Contract Review Committee 50 Wolf Road, Room 674 Albany, NY 12233-5010 Telephone: (518) 457-1141

- (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 agency 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 agency 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) (1) 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.
- (2) The CRC will promptly convene a review in accordance with Article 15-A of the Executive Law and the regulations promulgated thereunder.

X. 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.
- XI. 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.
- XII. 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 14740026K covers tax-free

transactions under the Internal Revenue Code.

XIII. 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.

XIV. 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.

XV. 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.

XVI. 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:
- (I) 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.

The Contractor shall control the defense of any such suit, including appeals, and all negotiations to effect settlement, but shall keep the Department fully informed concerning the progress of the litigation.

- (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:
- (I) 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.
- XVII. 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.

XVIII. 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.

XIX. 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.

Rider to Appendix B Standard Clauses for All New York State Department of Environmental Conservation Contracts

FOR ENVIRONMENTAL RESTORATION PROJECTS

The parties to this contract hereby agree that clause II of this appendix B is hereby revised to read as follows:

II. 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 acts or omissions of the Contractor, its agents, employees, or subcontractors in the performance of this contract which are shown to have been the result of negligence, gross negligence or reckless, wanton or intentional misconduct; except that the Contractor shall not be obligated to so indemnify and save harmless with respect to those matters described in ECL 56-0509.1 during those periods in which the protection afforded under ECL 56-0509.1 is in effect.

Department of Environmental Conservation

By: Management

Orthogonal Annagement

(Municipality's Name)

Dated:

By: Municipal Representative

Attachment C

NYSDOH Community Air Monitoring Plan

Community Air Monitoring Plan

(Intrusive Activities)

Real-time air monitoring, for volatile compounds and particulate levels at the perimeter of the work area is necessary. The plan must include the following:

- 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 must be halted and
 monitoring continued under the provisions of a <u>Vapor Emission Response</u>
 <u>Plan</u>. All readings must be recorded and be available for State (DEC &
 DOH) personnel to review.
- Particulates should be continuously monitored upwind, downwind and within the work area at temporary particulate monitoring stations. If the downwind particulate level is 100 μg/m³ greater than the upwind particulate level, then dust suppression techniques must be employed. All readings must be recorded and be available for State (DEC & DOH) personnel to review.

Vapor Emission Response Plan

If the ambient air concentration of organic vapors exceeds 5 ppm above background at the perimeter of the work area, activities will be halted and monitoring continued. If the organic vapor level decreases below 5 ppm above background, work activities can resume. If the organic vapor levels are greater than 5 ppm over background but less than 25 ppm over background at the perimeter of the work area, activities can 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.

If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown. When work shutdown occurs, downwind air monitoring as directed by the Safety Officer will 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.

Community Air Monitoring Plan

Major Vapor Emission

- 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 must be halted.
- 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, then the air quality must be monitored within 20 feet of the perimeter of the nearest residential or commercial structure (20 Foot Zone).
- If efforts to abate the emission source are unsuccessful and if the following levels persist for more than 30 minutes in the 20 Foot Zone, then the Major Vapor Emission Response Plan shall automatically be placed into effect;
 - if organic vapor levels are approaching 5 ppm above background.
- However, the Major Vapor Emission Response Plan shall be immediately placed into effect if organic vapor levels are greater than 10 ppm above background.
 - Major Vapor Emission Response Plan:
 - Upon activation, the following activities will be undertaken:
 - 1. All Emergency Response Contacts as listed in the Health and Safety Plan of the Work Plan will be notified.
 - 2. The local police authorities will immediately be contacted by the Safety Officer and advised of the situation.
 - 3. Frequent air monitoring will 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 Safety Officer.

f:\beei\western\wpdocs\CAMP.wpd

Attachment D
Schenectady POTW Effluent Limitations and Monitoring Requirements



AND PUBLIC WORKS

CITY OF SCHENECTADY NEW YORK

ROOM 205 CITY HALL 105 JAY STREET SCHENECTADY, NY 12305 (518) 382-5082 FAX (518) 382-1050 MILTON G. MITCHELL, PE COMMISSIONER OF PUBLIC WORKS G. DAVID KNOWLES, PE, LS ASSISTANT CITY ENGINEER

October 21, 2003

Schenectady Industrial Development Agency c/o Jeffrey R. Holt, P.E. Holt Consulting 620 Washington Ave. Rensselaer, New York 12144

Re: TEMPORARY DISCHARGE PERMIT

LOT NO. 6 BROWNFIELD DEWATERING AND REMEDIATION

RIVERSIDE INDUSTRIAL PARK SCHENECTADY, NEW YORK 12308

Dear Mr. Holt:

We have received an reviewed your request for dewatering and treating groundwater at the above facility and to discharge treated groundwater from the treatment system to the City's Sanitary Sewer System. The City and US Filter will require schematics and PI&D drawings of the treatment system along with a site visit during initial startup prior to commencement of discharge. In accordance with City of Schenectady's Sewer Use Ordinance (SUO) we have established the following criteria for the discharge of treated groundwater from this dewatering operation:

- 1. There will be a \$100.00 administrative fee made payable to the City of Schenectady to discharge treated groundwater to the City's system prior to the commencement of discharge.
- 2. Since this dewatering operation is planned to operate for a short-term period, the City will be reimbursed \$25.00 per 1,000 gallons of wastewater discharged to the City's sewer system, as measured by a flow meter installed on the discharge line by Holt Consulting.
- 3. Holt Consulting will notify U.S. Filter via telephone (631-0037) at least eight hours in advance of any discharge to the City's sewer system of the treated groundwater.
- 4. An implementation schedule for the dewatering operation and the proposed groundwater remedial system shall be submitted to the City of Schenectady and U.S. Filter.
- 5. Monitoring samples should be analyzed ro every FRAC tank processed and reported to Mr. Ryan L. Hendrix at U.S. Filter and Mr. G. David Knowles at the City of Schenectady via fax. Discharge water samples are to be collected at the final effluent and should be collected prior to the discharge of each FRAC tank system. The attached table identifies the monitoring requirements and frequency. Maximum allowable concentrations of the effluent wastewater will not be allowed to exceed those concentrations as shown on the attached Table.

Page 2 - Riverside Industrial Park

- 6. Results of all analytical work, to be completed by an approved laboratory shall be submitted to the City of Schenectady and U.S. Filter as soon as possible. A final report after the dewatering is complete is required to be submitted to the City.
- 7. This temporary discharge permit will be valid for a period of ninety (90) days from the date of commencement of start-up for the dewatering operation.
- 8. The applicant will abide by and conform to the City of Schenectady's Sewer Usage Ordinance.
- 9. The applicant will indemnify and hold harmless the City of Schenectady, and include the City of Schenectady as additionally insured to the Contractor's Insurance Policy, and submit a copy to the City prior to commencement of work.

Should you have any questions, or require any additional information please feel free to call G. David Knowles, P.E., L.S., Assistant City Engineer at (518) 382-5199, extension 5403.

Very truly yours,

Commissioner of Public Works

MGM:ts enclosure

cc: G. David Knowles, P.E., L.S., Assistant City Engineer Frederick Killeen, Esq., Asst. Corporation Council Ryan L. Hendrix, U.S. Filter

Effluent Parameter	Discharge	Units	Monitoring	Reference
	Limitations		Frequency	
Biochemical Oxygen Demand	300	mg/L	Once / FRAC Tank	COS/SUO_
Total Suspended Solids	350	mg/L	Once / FRAC Tank	COS/SUO
pH	5.5 - 9.5	s.u.	Once / FRAC Tank	COS/SUO
Oil and Grease	200	mg/L	Once / FRAC Tank	COS/SUO
Arsenic	0.2	mg/L	Once / FRAC Tank	COS/SUO
Barium	4.0	mg/L	Once / FRAC Tank	COS/SUO
Cadmium	0.4	Mg/L	Once / FRAC Tank	COS/SUO
Chromium (total)	4.0	mg/L	Once / FRAC Tank	COS/SUO
Copper	0.5	mg/L	Once / FRAC Tank	COS/SUO
Cyanide (total)	0.65	mg/L	Once / FRAC Tank	COS/SUO
Lead	0.2	mg/L	Once / FRAC Tank	COS/SUO
Mercury	0.05	mg/L	Once / FRAC Tank	COS/SUO
Molybdenum	1.0	mg/L	Once / FRAC Tank	COS/SUO
Nickel	4.0	mg/L	Once / FRAC Tank	COS/SUO
Phenolic compounds (total)	4.0	mg/L	Once / FRAC Tank	COS/SUO
Polychlorinated Biphenyls (PCB)	1.0	mg/L	Once / FRAC Tank	COS/SUO
Selenium	1.0	mg/L	Once / FRAC Tank	COS/SUO
Zinc	2.0	mg/L	Once / FRAC Tank	COS/SUO
Bis(2-Ethylhexyl)phthalate	8.0	mg/L	Once / FRAC Tank	COS/SUO
Total Toxic Organics	2.13	mg/L	Once / FRAC Tank	COS/SUO
Benzene	100	μg/L	Once / FRAC Tank	NYSDEC/DOW
Ethylbenzene	100	μg/L	Once / FRAC Tank	NYSDEC/DOW
Sum of Xylenes	100	μg/L	Once / FRAC Tank	NYSDEC/DOW
Toluene	100	μg/L	Once / FRAC Tank	NYSDEC/DOW
1,3,5-trimethylbenzene	100	μg/L	Once / FRAC Tank	NYSDEC/DOW
1,2,4-trimethylbenzene	100	μg/L	Once / FRAC Tank	NYSDEC/DOW
Cis 1,2-Dichloroethene	100	μg/L	Once / FRAC Tank	NYSDEC/DOW
1,1,1-Trichloroethene	100	μg/L	Once / FRAC Tank	NYSDEC/DOW
Trichloroethene	100	μg/L	Once / FRAC Tank	NYSDEC/DOW
Trichlorofluoromethane	100	μg/L	Once / FRAC Tank	NYSDEC/DOW
Methylene chloride	100	μg/L	Once / FRAC Tank	NYSDEC/DOW
Napthalene	100	μg/L	Once / FRAC Tank	NYSDEC/DOW
Pentachlorophenol	100	μg/L	Once / FRAC Tank	NYSDEC/DOW