SECTION 4

EROSION AND SEDIMENT CONTROL MEASURES

4.1 GENERAL

The erosion and sediment control measures described herein will conform to the latest version of the NYSDEC’s, "New York State Standards and Specifications for Erosion and Sediment Control."

A qualified inspector will inspect the proposed erosion and sediment control measures and disturbed areas of the site for compliance with this SWPPP. Inspections will be completed at least once every seven calendar days. A typical Construction Log and Inspection Report Form are included in Appendix C.

4.2 TEMPORARY EROSION AND SEDIMENTATION CONTROL

Temporary erosion and sedimentation controls will be installed prior to start of construction to prevent off site sedimentation. These controls are a dynamic project element, requiring modification as the construction needs change over time. The minimum temporary measures include sediment barriers in the form of silt fence or hay bales, as per Specification 02370 – Erosion Control.

4.2.1 Silt Fence

Silt fence will intercept sediment-laden runoff along the perimeter of disturbed site areas during construction. The geotextile filter fabric fence requires periodic maintenance and will be checked for tears or clogging with silt or debris as part of the weekly site inspections. Silt will be removed from the woven filter cloth with a stiff brush if clogging occurs. Silt fence will be installed down-slope from disturbed areas and at the toe of stockpiles. Silt fence will remain in place until permanent vegetation is established over disturbed topsoil areas. Silt fence requirements are detailed in Specification 02370 – Erosion Control.

4.2.2 Southern Slope Soil Stabilization and Runoff Control

The slope to the south of the site is currently grassed and wooded. This slope will be monitored for runoff. However further erosion protection is not likely required, as this slope will not be disturbed by site activities.

If necessary, a temporary swale will be constructed at the toe of the slope in order to prevent runoff from entering disturbed areas, by diverting to either the West Flume or the LCP east ditch.

4.2.3 Runoff Control for the CWTP

As per standard CWTP practice, containment is inherently included within the working platform construction. The surface of the temporary work platform will be Hot Mixed Asphalt pavement on a stone base. The pavement will be treated with sealant to reduce its infiltration. An
asphaltic curb will be constructed around the limits of the paving to contain runoff within the CWTP boundary as well as prevent runoff from entering from adjacent areas. The asphalt will be contoured towards an on-site retention basin which will be sized to contain the maximum of a total of 2 inches of rainfall. A collection sump and pump will transfer the collected run-off into holding tanks. As stated previously, the work platform, curbs and pumps will be removed and the area restored with topsoil and vegetation following decommissioning and removal of the CWTP.

4.3 PERMANENT EROSION CONTROL

Permanent erosion controls will be installed at the site following decommissioning and removal of the CWTP. These controls include seeding and mulching of finished topsoil areas to promote vegetation. Temporary silt fence will remain in place until vegetation is established over the restored areas. This phase of the project will be completed under the Geddes Brook IRM. Refer to the Geddes Brook IRM Design Report for the Specification 02990 – Finish Grading, Topsoil and Seeding and the Operation and Maintenance Plan for restored areas.

4.4 INSPECTION AND MAINTENANCE OF TEMPORARY CONTROLS

Stormwater and erosion and sediment controls will be constructed in accordance with their design intent and maintained to prevent runoff from entering disturbed area, or to intercept sediment-laden runoff and diverting it for treatment during construction.

The Owner will have a qualified inspector such as a professional engineer, licensed landscape architect or certified professional in erosion and sediment control (CPESC) conduct site inspections in accordance with the requirements in the most current version of the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, the erosion and sediment controls identified in the SWPPP to ensure that they are being maintained in effective operating condition at all times.

The qualified inspector will conduct an assessment of the site prior to the commencement of construction. The qualified inspector will conduct at least one site inspection every seven calendar days.

If soil disturbance activities are temporarily suspended and temporary stabilization measures have been applied to all disturbed areas, the Owner may stop conducting the maintenance inspections. The Owner will begin conducting the maintenance inspections as soon as soil disturbance activities resume. If soil disturbance activities are shut down with partial project completion, the Owner may stop conducting the maintenance inspections if all areas disturbed as of the project shutdown date have achieved final stabilization and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with this SWPPP are operational.

At a minimum, the qualified inspector will inspect all erosion and sediment control practices to ensure integrity and effectiveness, and to ensure that they are constructed in conformance with this SWPPP, all areas of disturbance that have not achieved final stabilization, all points of discharge to natural surface waterbodies located within, or immediately adjacent to, the property...
boundaries of the construction site, and all points of discharge from the construction site. The qualified inspector will prepare an inspection report subsequent to each and every inspection. At a minimum, the inspection report will include and/or address the following in accordance with Part IV C3 of the General Permit:

1) Date and time of inspection
2) Name and title of person(s) performing inspection
3) A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection
4) A description of the condition of the runoff at all points of discharge from the construction site
5) A description of the condition of all natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the construction site which receive runoff from disturbed areas
6) Identification of all erosion and sediment control practices that need repair or maintenance
7) Identification of all erosion and sediment control practices that were not installed properly or are not functioning as designed and need to be reinstalled or replaced
8) Description and sketch of areas that are disturbed at the time of the inspection and areas that have been stabilized (temporary and/or final) since the last inspection
9) Current phase of construction of all post-construction stormwater management practices and identification of all construction that is not in conformance with the SWPPP and technical standards
10) Any corrective action(s) that must be taken to install, repair, replace or maintain erosion and sediment control practices
11) Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The qualified inspector will attach paper color copies of the digital photographs to the inspection report being maintained onsite within seven calendar days of the date of the inspection. The qualified inspector will also take digital photographs, with date stamp, that clearly show the condition of the practice(s) after the corrective action has been completed. The qualified inspector will attach paper color copies of the digital photographs to the inspection report that documents the completion of the corrective action work within seven calendar days of that inspection.

Within one business day of the completion of an inspection, the qualified inspector will notify the Owner of any corrective actions that need to be taken. The Owner will begin implementing the corrective actions within one business day of this notification and will complete the corrective actions in a reasonable time frame.

All inspection reports will be signed by the qualified inspector and inspection reports will be maintained on site with the SWPPP. The site logbook will be maintained on site and will be made available to the permitting authority upon request. A summary of the site inspection
activities will be posted at the site monthly. A typical Construction Log and Inspection Report Form are included in Appendix C.

A site map will be maintained on the project site indicating the extent of all disturbed onsite areas and drainage ways throughout the duration of construction. The site map will contain all areas expected to undergo initial disturbance or significant site work within every 14-day period. The map will indicate all areas of the site that have undergone temporary or permanent stabilization. All disturbed areas that have not undergone active site work during the previous 14-day inspection period will be noted on the map. All sediment control measures will be inspected and the degree of accumulation as a percentage of the sediment storage volume will be recorded. Any maintenance required for installed erosion and sediment control structures will be noted, and documentation of areas where adjustments are needed to those measures will be provided. Any deficiencies identified with the implementation of the SWPPP will be recorded.

Erosion and sediment control measures will be maintained as follows:

- Temporary silt fence will be installed prior to earth disturbance to reduce runoff velocity and transportation of sediment. The structures will be inspected weekly and after every rainfall; and the structures cleaned, repaired, or replaced as required. Temporary stabilization structures will be removed when their contributory drainage area is stabilized.

- Upon final grading, disturbed soil areas will be seeded and mulched. All seeded areas will be inspected monthly and after every rainfall. The areas will be repaired and re-seeded, as required.

- Seeded areas will be inspected and maintained regularly, consistent with favorable plant growth, soil, and weather conditions to insure soil protection and structural integrity of the site’s plant cover. Maintenance of vegetative areas includes removal of debris and protection from unintended uses or traffic.
SECTION 5
HYDROLOGIC ANALYSIS

5.1 GENERAL

A hydrologic analysis for the pre- and post-development conditions of the site has been performed. The following sections describe the methods used for analysis, assumptions, and computational results.

5.2 WATER QUALITY VOLUME

NYSDEC has developed stormwater management regulations for the purposes of sediment removal. The water quality volume criterion is designed to capture and treat 90% of the average annual stormwater runoff volume from impervious paved surfaces. The water quality volume is a function of the amount of permanent impervious cover created at a site. Since the subject project is not a development project and the improvement of water quality is inherent in the Geddes Brook IRM, and therefore the CWTP at LCP, the water quality volume criterion is not required.

5.3 ANALYSIS METHOD

A hydrologic and hydraulic analysis of the pre and post-construction conditions was computed using WIN TR-55 Hydrologic Modeling Software. The peak stormwater runoff and runoff volume were determined for each site condition. WIN TR-55 is a single event rainfall-runoff small watershed model. The model generates hydrographs from both urban and agricultural areas and at selected points along the stream system. Multiple sub-areas can be modeled within a watershed.

The model inputs include drainage area, design storm amounts and distribution, runoff curve number (RCN), time of concentration (Tc), and conveyance data. The following sections discuss the input data for the computations and present the results of the analysis.

The results of the hydrologic analysis for both the pre and post-construction conditions are presented in Appendix D.

5.4 WATERSHED BOUNDARIES

The pre-construction watershed boundary is made of two sub-areas: Area A which flows to the northwest and northeast of the site into the LCP east ditch and the West Flume respectively; and Area B that flows east and south on the LCP containment area into the LCP drainage swale. The disturbed area at the CWTP at LCP project affects Area A. Area B is essentially “off-site,” however drains towards the excavation at the CWTP at LCP.

In the pre-construction conditions, the surfaces of Area A are composed of woods, and brush/grass combination, gravel, a very small portion of paved road and water (the West Flume).
Construction in Area A requires remediation earthwork, grading in preparation for the CWTP work platform and actual construction of the CWTP. The work platform will remain in place until the final site restoration is completed under future projects. Post-construction, the entire Area A will be topsoiled and grassed.

In the pre-construction conditions, the surface of Area B is meadow grass. Construction in Area B consists of remedial earthwork in a strip less than 20 ft. wide between the centerline of the LCP swale and the existing cut-off wall of the LCP containment area. Post-construction, Area B will remain grassed, however the slopes will be steeper than the pre-construction conditions.

A summary of the watershed boundaries used for the analysis is provided in the table below. Pre and post-construction watersheds are presented in Figures 3 and 4.

### Watershed Boundaries

<table>
<thead>
<tr>
<th>Watershed ID</th>
<th>Pre-Construction (ac)</th>
<th>Post-Construction (ac)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area A</td>
<td>6.33</td>
<td>6.33</td>
</tr>
<tr>
<td>Area B</td>
<td>5.04</td>
<td>4.72</td>
</tr>
</tbody>
</table>

### 5.5 DESIGN STORM

The analysis included the 1-year, 10-year, and 100-year, 24-hour design-storm events. Rainfall data was compiled from the NRCS for Onondaga County and provided in the WIN TR-55 program database. Type II synthetic rainfall distributions were used in the analysis based on the site location and the corresponding SCS rainfall distribution boundary map. The 24-hour rainfall amounts used for the hydraulic and hydrologic analysis are provided in the table below:

### 24-Hour Rainfall for Onondaga County

<table>
<thead>
<tr>
<th>Design Storm Event</th>
<th>Rainfall (in)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Year</td>
<td>2.2</td>
</tr>
<tr>
<td>2 Year</td>
<td>2.6</td>
</tr>
<tr>
<td>5 Year</td>
<td>3.2</td>
</tr>
<tr>
<td>10 Year</td>
<td>3.8</td>
</tr>
<tr>
<td>25 Year</td>
<td>4.5</td>
</tr>
<tr>
<td>50 Year</td>
<td>4.8</td>
</tr>
<tr>
<td>100 Year</td>
<td>5.2</td>
</tr>
</tbody>
</table>
5.6 RUNOFF CURVE NUMBER

The Soil Conservation Service (SCS) has developed curve numbers that represent the ground cover types for urban areas and agricultural lands. The curve number values are based on the type of surface and the hydrologic soil group. The curve numbers are an input for stormwater runoff computations and are used to generate the computer model of the site. The SCS values used for the hydrologic analysis including the pre and post-construction conditions are summarized in the table below.

<table>
<thead>
<tr>
<th>SCS Runoff Curve Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrologic Soil Group</td>
</tr>
<tr>
<td>Pavement/Impounded Water</td>
</tr>
<tr>
<td>Gravel</td>
</tr>
<tr>
<td>Woods (fair condition)</td>
</tr>
<tr>
<td>Brush, Weed, Grass Mix (fair condition)</td>
</tr>
<tr>
<td>Meadow Grass</td>
</tr>
</tbody>
</table>

The existing site woods and brush are noted to be in fair condition with ~75% vegetated cover. In the post-developed site, disturbed and bare areas will be seeded and monitored to establish meadow grass in both sub watersheds to a good condition.

5.7 TIME OF CONCENTRATION

Tc is the duration taken for runoff to travel from the hydraulically most distant point of the watershed to a point of interest (outfall) within the watershed. It is also the sum of the travel time from the various consecutive flow segments along the flow path of the watershed to the outfall. Tc is dependent on the velocity of the runoff and is a function of the surface roughness, slope of the surface, and flow segment length. The Tc flow segments for the pre-construction and post-construction site conditions are depicted on Figures 3 and 4. The following table displays the Tc in hours for both sub watersheds for both pre and post-construction conditions.

<table>
<thead>
<tr>
<th>Pre and Post-Construction Time of Concentration (hrs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrologic Soil Group</td>
</tr>
<tr>
<td>Pavement/Impounded Water</td>
</tr>
<tr>
<td>Gravel</td>
</tr>
<tr>
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<td>Brush, Weed, Grass Mix (fair condition)</td>
</tr>
<tr>
<td>Meadow Grass</td>
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Pre and Post-Construction Time of Concentration (hrs)

| Hydrologic Soil Group | Curve Number |
| Pavement/Impounded Water | B 98         |
| Gravel | B 85         |
| Woods (fair condition) | B 60         |
| Brush, Weed, Grass Mix (fair condition) | B 56         |
| Meadow Grass | B 58         |
5.8 PEAK FLOW

The following table illustrates the peak flows, in cubic feet per second (cfs), anticipated to be discharged from the pre- and post-construction sub watersheds of the project site based on the results of hydrologic modeling.

<table>
<thead>
<tr>
<th></th>
<th>Area A and B Pre-Construction</th>
<th>Area A and B Post-Construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Yr Storm</td>
<td>0.8</td>
<td>0.08</td>
</tr>
<tr>
<td>2-Yr Storm</td>
<td>1.7</td>
<td>0.46</td>
</tr>
<tr>
<td>5-Yr Storm</td>
<td>3.61</td>
<td>1.60</td>
</tr>
<tr>
<td>10-Yr Storm</td>
<td>6.06</td>
<td>3.36</td>
</tr>
<tr>
<td>25-Yr Storm</td>
<td>9.44</td>
<td>6.03</td>
</tr>
<tr>
<td>50-Yr Storm</td>
<td>11.03</td>
<td>7.35</td>
</tr>
<tr>
<td>100-Yr Storm</td>
<td>13.26</td>
<td>9.22</td>
</tr>
</tbody>
</table>

5.9 SUMMARY RESULTS

The site post-construction results in a net decrease in peak discharge of 0.72 cfs, 2.70 cfs and 4.04 cfs for the 1-year, 10-year and 100-year design storms respectively. The decrease in runoff flow volume is primarily attributed to the removal of existing gravel surfaces and restoration with topsoil and meadow grass which increases infiltration potential.
SECTION 6

CONTRACTOR CERTIFICATION

All Contractors and Sub-Contractors agree to the following certification statement referenced from SPDES General Permit GP-0-10-001:

Certification Statement

"I hereby certify that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the qualified inspector during a site inspection. I also understand that the owner or operator must comply with the terms and conditions of the most current version of the New York State Pollutant Discharge Elimination System ("SPDES") general permit for stormwater discharges from construction activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings."

Contractor: ____________________________________________________________
Contact Person (Print): ________________________________________________
Contact Person (Signature): ____________________ Date: _________________
Address: __________________________________________________________________
____________________________________________________________________
____________________________________________________________________

Phone: __________________________
Fax: __________________________
SECTION 7

REFERENCES


APPENDIX A

NOTICE OF INTENT (NOI)

(for information only)
NOTICE OF INTENT

New York State Department of Environmental Conservation
Division of Water
625 Broadway, 4th Floor
Albany, New York 12233-3505

Stormwater Discharges Associated with Construction Activity Under State Pollutant Discharge Elimination System (SPDES) General Permit # GP-0-10-001
All sections must be completed unless otherwise noted. Failure to complete all items may result in this form being returned to you, thereby delaying your coverage under this General Permit. Applicants must read and understand the conditions of the permit and prepare a Stormwater Pollution Prevention Plan prior to submitting this NOI. Applicants are responsible for identifying and obtaining other DEC permits that may be required.

-IMPORTANT-
RETURN THIS FORM TO THE ADDRESS ABOVE
OWNER/OPERATOR MUST SIGN FORM

Owner/Operator Information

Owner/Operator (Company Name/Private Owner Name/Municipality Name)
Honeywell International Inc.

Owner/Operator Contact Person Last Name (NOT CONSULTANT)
Labuz

Owner/Operator Contact Person First Name
Alfred

Owner/Operator Mailing Address
301 Plainfield Rd., suite 330

City
Syracuse

State
NY
Zip
13212-

Phone (Owner/Operator)
315-552-9781

Fax (Owner/Operator)
315-552-7780

Email (Owner/Operator)
al.labuz@honeywell.com

FED TAX ID
22-2640650 (not required for individuals)
## Project Site Information

### Project/Site Name

**CWTP at LCP portion of Geddes Brook IRM**

### Street Address (NOT P.O. BOX)

202 Mathews Ave, Solvay NY

### Side of Street

- **North**
- **South**
- **East**
- **West**

### City/Town/Village (THAT ISSUES BUILDING PERMIT)

**Geddes**

### State Zip

**NY 13209-**

### County

**Onondaga**

### DEC Region

**7**

### Name of Nearest Cross Street

**Bridge St**

### Distance to Nearest Cross Street (Feet)

**400**

### Project In Relation to Cross Street

- **North**
- **South**
- **East**
- **West**

### Tax Map Numbers

**Section-Block-Parcel**

<table>
<thead>
<tr>
<th>Section</th>
<th>Block</th>
<th>Parcel</th>
</tr>
</thead>
<tbody>
<tr>
<td>027</td>
<td>03</td>
<td>10.1</td>
</tr>
</tbody>
</table>

### Tax Map Numbers

<table>
<thead>
<tr>
<th>Project Location</th>
<th>027-000</th>
</tr>
</thead>
</table>

---

1. Provide the Geographic Coordinates for the project site in NYTM Units. To do this you **must** go to the NYSDEC Stormwater Interactive Map on the DEC website at:


   Zoom into your Project Location such that you can accurately click on the centroid of your site. Once you have located your project site, go to the tool boxes on the top and choose "i"(identify). Then click on the center of your site and a new window containing the X, Y coordinates in UTM will pop up. Transcribe these coordinates into the boxes below. For problems with the interactive map use the help function.

   **X Coordinates (Easting)**
   
   400552

   **Y Coordinates (Northing)**
   
   4768862

---

2. What is the nature of this construction project?

- **New Construction**
- **Redevelopment with increase in imperviousness**
- **Redevelopment with no increase in imperviousness**
3. Select the predominant land use for both pre and post development conditions.

**SELECT ONLY ONE CHOICE FOR EACH**

**Pre-Development Existing Land Use**
- Forest
- Pasture/Open Land
- Cultivated Land
- Single Family Home
- Single Family Subdivision
- Town Home Residential
- Multifamily Residential
- Institutional/School
- Industrial
- Commercial
- Road/Highway
- Recreational/Sports Field
- Bike Path/Trail
- Linear Utility
- Parking Lot
- Other

**Post-Development Future Land Use**
- Single Family Home
- Single Family Subdivision
- Town Home Residential
- Multifamily Residential
- Institutional/School
- Industrial
- Commercial
- Municipal
- Road/Highway
- Recreational/Sports Field
- Bike Path/Trail
- Linear Utility (water, sewer, gas, etc.)
- Parking Lot
- Clearing/Grading Only
- Demolition, No Redevelopment
- Well Drilling Activity * (Oil, Gas, etc.)
- Other

*note: for gas well drilling, non-high volume hydraulic fractured wells only*

4. Will future use of this site be an agricultural property as defined by the NYS Agriculture and Markets Law?  
   - Yes  
   - No

5. Is this a project which does not require coverage under the General Permit (e.g. Project done under an Individual SPDES Permit, or department approved remediation)?  
   - Yes  
   - No

6. Is this property owned by a state authority, state agency, federal government or local government?  
   - Yes  
   - No

7. In accordance with the larger common plan of development or sale, enter the total project site acreage, the acreage to be disturbed and the future impervious area (acreage) within the disturbed area. Round to the nearest tenth of an acre.

<table>
<thead>
<tr>
<th>Total Site Acreage</th>
<th>Acreage To Be Disturbed</th>
<th>Existing Impervious Area Within Disturbed</th>
<th>Future Impervious Area Within Disturbed</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.4</td>
<td>3.3</td>
<td>2.6</td>
<td>0.1</td>
</tr>
</tbody>
</table>

8. Do you plan to disturb more than 5 acres of soil at any one time?  
   - Yes  
   - No

9. Indicate the percentage of each Hydrologic Soil Group (HSG) at the site.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
</table>
   | 1 | 0 | 0 | 0
10. Is this a phased project? O Yes O No

11. Enter the planned start and end dates of the disturbance
   Start Date: 10/31/2010 - End Date: 03/30/2014

12. Identify the nearest, natural, surface waterbody(ies) to which construction site runoff will discharge.
   Name: Upper Geddes Brook

12a. Type of waterbody identified in Question 12?
   O Wetland / State Jurisdiction On Site (Answer 12b)
   O Wetland / State Jurisdiction Off Site
   O Wetland / Federal Jurisdiction On Site (Answer 12b)
   O Wetland / Federal Jurisdiction Off Site
   O Stream / Creek On Site
     O Stream / Creek Off Site
   O River On Site
   O River Off Site
   O Lake On Site
   O Lake Off Site
   O Other Type On Site
   O Other Type Off Site

12b. How was the wetland identified?
   O Regulatory Map
   O Delineated by Consultant
   O Delineated by Army Corps of Engineers
   O Other (identify)

13. Has the surface waterbody(ies) in question 12 been identified as a 303(d) segment in Appendix E of GP-0-10-001? O Yes O No

14. Is this project located in one of the Watersheds identified in Appendix C of GP-0-10-001? O Yes O No

15. Is the project located in one of the watershed areas associated with AA and AA-S classified waters? If no, skip question 16. O Yes O No
16. Does this construction activity disturb land with no existing impervious cover and where the Soil Slope Phase is identified as an E or F on the USDA Soil Survey? If Yes, what is the acreage to be disturbed?

17. Will the project disturb soils within a State regulated wetland or the protected 100 foot adjacent area?

18. Does the site runoff enter a separate storm sewer system (including roadside drains, swales, ditches, culverts, etc)?

19. What is the name of the municipality/entity that owns the separate storm sewer system?

20. Does any runoff from the site enter a sewer classified as a Combined Sewer?

21. Has the required Erosion and Sediment Control component of the SWPPP been developed in conformance with the current NYS Standards and Specifications for Erosion and Sediment Control (aka Blue Book)?

22. Does this construction activity require the development of a SWPPP that includes Water Quality and Quantity Control components (Post-Construction Stormwater Management Practices) (If No, skip questions 23 and 27-35)

23. Have the Water Quality and Quantity Control components of the SWPPP been developed in conformance with the current NYS Stormwater Management Design Manual?
The Stormwater Pollution Prevention Plan (SWPPP) was prepared by:

- Professional Engineer (P.E.)
- Soil and Water Conservation District (SWCD)
- Registered Landscape Architect (R.L.A.)
- Certified Professional in Erosion and Sediment Control (CPESC)
- Owner/Operator
- Other

**Parsons**

**Salomone William**

**301 Plainfield Rd**

**Syracuse**

**NY 13212**

**315-451-9560**

**william.salomone@parsons.com**

I hereby certify that the Stormwater Pollution Prevention Plan (SWPPP) for this project has been prepared in accordance with the terms and conditions of the GP-0-10-001. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of this permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

**Signature**

**State of New York**

**WILLIAM A. SALOMONE**

**083039**

**LICENSED PROFESSIONAL ENGINEER**

**Date**

**10/06/2010**
25. Has a construction sequence schedule for the planned management practices been prepared?  

- [ ] Yes  
- [ ] No

26. Select all of the erosion and sediment control practices that will be employed on the project site:

### Temporary Structural
- [ ] Check Dams
- [ ] Construction Road Stabilization
- [ ] Dust Control
- [ ] Earth Dike
- [ ] Level Spreader
- [ ] Perimeter Dike/Swale
- [ ] Pipe Slope Drain
- [ ] Portable Sediment Tank
- [ ] Rock Dam
- [ ] Sediment Basin
- [ ] Sediment Traps
- [ ] Silt Fence
- [ ] Stabilized Construction Entrance
- [ ] Storm Drain Inlet Protection
- [ ] Straw/Hay Bale Dike
- [ ] Temporary Access Waterway Crossing
- [ ] Temporary Stormdrain Diversion
- [ ] Temporary Swale
- [ ] Turbidity Curtain
- [ ] Water bars

### Vegetative Measures
- [ ] Brush Matting
- [ ] Dune Stabilization
- [ ] Grassed Waterway
- [ ] Mulching
- [ ] Protecting Vegetation
- [ ] Recreation Area Improvement
- [ ] Seeding
- [ ] Sodding
- [ ] Straw/Hay Bale Dike
- [ ] Streambank Protection
- [ ] Temporary Swale
- [ ] Topsoiling
- [ ] Vegetating Waterways

### Permanent Structural
- [ ] Debris Basin
- [ ] Diversion
- [ ] Grade Stabilization Structure
- [ ] Land Grading
- [ ] Lined Waterway (Rock)
- [ ] Paved Channel (Concrete)
- [ ] Paved Flume
- [ ] Retaining Wall
- [ ] Riprap Slope Protection
- [ ] Rock Outlet Protection
- [ ] Streambank Protection

### Biotechnical
- [ ] Brush Matting
- [ ] Wattling

### Other

- [ ]
- [ ]
- [ ]
- [ ]
- [ ]
- [ ]
- [ ]
- [ ]
### Post-Construction Stormwater Management Practices

27. Indicate all Stormwater Management Practice(s) that will be installed/constructed on this site:

<table>
<thead>
<tr>
<th>Practice Type</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ponds</strong></td>
<td>Micropool Extended Detention (P-1)</td>
</tr>
<tr>
<td></td>
<td>Wet Pond (P-2)</td>
</tr>
<tr>
<td></td>
<td>Wet Extended Detention (P-3)</td>
</tr>
<tr>
<td></td>
<td>Multiple Pond System (P-4)</td>
</tr>
<tr>
<td></td>
<td>Pocket Pond (P-5)</td>
</tr>
<tr>
<td><strong>Wetlands</strong></td>
<td>Shallow Wetland (W-1)</td>
</tr>
<tr>
<td></td>
<td>Extended Detention Wetland (W-2)</td>
</tr>
<tr>
<td></td>
<td>Pond/Wetland System (W-3)</td>
</tr>
<tr>
<td></td>
<td>Pocket Wetland (W-4)</td>
</tr>
<tr>
<td><strong>Filtering</strong></td>
<td>Surface Sand Filter (F-1)</td>
</tr>
<tr>
<td></td>
<td>Underground Sand Filter (F-2)</td>
</tr>
<tr>
<td></td>
<td>Perimeter Sand Filter (F-3)</td>
</tr>
<tr>
<td></td>
<td>Organic Filter (F-4)</td>
</tr>
<tr>
<td></td>
<td>Bioretention (F-5)</td>
</tr>
<tr>
<td><strong>Infiltration</strong></td>
<td>Infiltration Trench (I-1)</td>
</tr>
<tr>
<td></td>
<td>Infiltration Basin (I-2)</td>
</tr>
<tr>
<td></td>
<td>Dry Well (I-3)</td>
</tr>
<tr>
<td></td>
<td>Underground Infiltration System</td>
</tr>
<tr>
<td><strong>Open Channels</strong></td>
<td>Dry Swale (O-1)</td>
</tr>
<tr>
<td></td>
<td>Wet Swale (O-2)</td>
</tr>
<tr>
<td><strong>Alternative Practice</strong></td>
<td>Rain Garden</td>
</tr>
<tr>
<td></td>
<td>Cistern</td>
</tr>
<tr>
<td></td>
<td>Green Roof</td>
</tr>
<tr>
<td></td>
<td>Stormwater Planters</td>
</tr>
<tr>
<td></td>
<td>Permeable Paving (Modular Block)</td>
</tr>
<tr>
<td><strong>Verified Proprietary Practice</strong></td>
<td>Hydrodynamic</td>
</tr>
<tr>
<td></td>
<td>Wet Vault</td>
</tr>
<tr>
<td></td>
<td>Media Filter</td>
</tr>
</tbody>
</table>

28. Describe other stormwater management practices not listed above or explain any deviations from the technical standards.

N/A

29. Has a long term Operation and Maintenance Plan for the post-construction stormwater management practice(s) been developed?

If Yes, Identify the entity responsible for the long term Operation and Maintenance
30. Provide the total water quality volume required and the total provided for the site.

<table>
<thead>
<tr>
<th>WQv Required</th>
<th>WQv Provided</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>acre-feet</td>
<td>acre-feet</td>
</tr>
</tbody>
</table>

31. Provide the following Unified Stormwater Sizing Criteria for the site.

**Total Channel Protection Storage Volume (CPv)** - Extended detention of post-developed 1 year, 24 hour storm event

<table>
<thead>
<tr>
<th>CPv Required</th>
<th>CPv Provided</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>acre-feet</td>
<td>acre-feet</td>
</tr>
</tbody>
</table>

31a. The need to provide for channel protection has been waived because:

- Site discharges directly to fourth order stream or larger

**Total Overbank Flood Control Criteria (Qp)** - Peak discharge rate for the 10 year storm

<table>
<thead>
<tr>
<th>Pre-Development</th>
<th>Post-development</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.06 CFS</td>
<td>3.36 CFS</td>
</tr>
</tbody>
</table>

**Total Extreme Flood Control Criteria (Qf)** - Peak discharge rate for the 100 year storm

<table>
<thead>
<tr>
<th>Pre-Development</th>
<th>Post-development</th>
</tr>
</thead>
<tbody>
<tr>
<td>13.26 CFS</td>
<td>9.22 CFS</td>
</tr>
</tbody>
</table>

31b. The need to provide for flood control has been waived because:

- Site discharges directly to fourth order stream or larger

- Downstream analysis reveals that flood control is not required

**IMPORTANT:** For questions 31 and 32, impervious area should be calculated considering the project site and all offsite areas that drain to the post-construction stormwater management practice(s). (Total Drainage Area = Project Site + Offsite areas)

32. Pre-Construction Impervious Area - As a percent of the Total Drainage Area enter the percentage of the existing impervious areas before construction begins.

| 23 % |

33. Post-Construction Impervious Area - As a percent of the Total Drainage Area, enter the percentage of the future impervious areas that will be created/remain on the site after completion of construction.

| 1 % |

34. Indicate the total number of post-construction stormwater management practices to be installed/constructed.

| 0 |

35. Provide the total number of stormwater discharge points from the site. (include discharges to either surface waters or to separate storm sewer systems)

| 1 |
36. Identify other DEC permits that are required for this project.

DEC Permits
- Air Pollution Control
- Coastal Erosion
- Hazardous Waste
- Long Island Wells
- Mined Land Reclamation
- Other SPDES
- Solid Waste
- None
- Other

37. Does this project require a US Army Corps of Engineers Wetland Permit?  
   If Yes, Indicate Size of Impact.

38. Is this project subject to the requirements of a regulated, traditional land use control MS4?  
   (If No, skip question 39)

39. Has the "MS4 SWPPP Acceptance" form been signed by the principal executive officer or ranking elected official and submitted along with this NOI?

40. If this NOI is being submitted for the purpose of continuing coverage under a general permit for stormwater runoff from construction activities, please indicate the former SPDES number assigned.

Owner/Operator Certification
I have read or been advised of the permit conditions and believe that I understand them. I also understand that, under the terms of the permit, there may be reporting requirements. I hereby certify that this document and the corresponding documents were prepared under my direction or supervision. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further understand that coverage under the general permit will be identified in the acknowledgment that I will receive as a result of submitting this NOI and can be as long as sixty (60) business days as provided for in the general permit. I also understand that, by submitting this NOI, I am acknowledging that the SWPPP has been developed and will be implemented as the first element of construction, and agreeing to comply with all the terms and conditions of the general permit for which this NOI is being submitted.

Print First Name Al fred
Print Last Name Lab uz

Owner/Operator Signature

Date 10/06/2010
APPENDIX B

HYDROLOGIC SOIL MAP
MAP LEGEND

<table>
<thead>
<tr>
<th>Area of Interest (AOI)</th>
<th>Soil Map Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Soil Ratings</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td></td>
</tr>
<tr>
<td>A/D</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td></td>
</tr>
<tr>
<td>B/D</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td></td>
</tr>
<tr>
<td>C/D</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td></td>
</tr>
<tr>
<td>Not rated or not available</td>
<td></td>
</tr>
</tbody>
</table>

Political Features

- Cities

Water Features

- Oceans
- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

MAP INFORMATION

Map Scale: 1:6,400 if printed on A size (8.5" × 11") sheet.
The soil surveys that comprise your AOI were mapped at 1:20,000.
Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Coordinate System: UTM Zone 18N NAD83
This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Onondaga County, New York
Survey Area Data: Version 5, Feb 18, 2010
Date(s) aerial images were photographed: 7/16/2006
The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.
# Hydrologic Soil Group

## Hydrologic Soil Group—Summary by Map Unit—Onondaga County, New York

<table>
<thead>
<tr>
<th>Map unit symbol</th>
<th>Map unit name</th>
<th>Rating</th>
<th>Acres in AOI</th>
<th>Percent of AOI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cd</td>
<td>Canandaigua mucky silt loam</td>
<td>D</td>
<td>4.0</td>
<td>2.1%</td>
</tr>
<tr>
<td>CFL</td>
<td>Cut and fill land</td>
<td>A/D</td>
<td>12.4</td>
<td>6.7%</td>
</tr>
<tr>
<td>Fo</td>
<td>Fonda mucky silty clay loam</td>
<td>D</td>
<td>2.4</td>
<td>1.3%</td>
</tr>
<tr>
<td>Ma</td>
<td>Made land, chemical waste</td>
<td>D</td>
<td>4.2</td>
<td>2.2%</td>
</tr>
<tr>
<td>ML</td>
<td>Made land</td>
<td>A/D</td>
<td>28.9</td>
<td>15.6%</td>
</tr>
<tr>
<td>Ms</td>
<td>Martisco and Warners soils</td>
<td>B/D</td>
<td>20.0</td>
<td>10.8%</td>
</tr>
<tr>
<td>NgA</td>
<td>Niagara silt loam, 0 to 4 percent slopes</td>
<td>C</td>
<td>15.3</td>
<td>8.2%</td>
</tr>
<tr>
<td>Ub</td>
<td>Urban land</td>
<td></td>
<td>95.4</td>
<td>51.5%</td>
</tr>
<tr>
<td>W</td>
<td>Water</td>
<td></td>
<td>2.7</td>
<td>1.5%</td>
</tr>
<tr>
<td><strong>Totals for Area of Interest</strong></td>
<td></td>
<td></td>
<td><strong>185.3</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>
Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition
Component Percent Cutoff: None Specified
Tie-break Rule: Lower
APPENDIX C

CONSTRUCTION LOGS AND INSPECTION TEMPLATES
APPENDIX H

STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM FOR CONSTRUCTION ACTIVITIES
CONSTRUCTION SITE LOG BOOK

Table of Contents

I. Pre-Construction Meeting Documents
   a. Preamble to Site Assessment and Inspections
   b. Operator’s Certification
   c. Qualified Professional's Credentials & Certification
   d. Pre-Construction Site Assessment Checklist

II. Construction Duration Inspections
    a. Directions
    b. Modification to the SWPPP

III. Monthly Summary Reports

IV. Monitoring, Reporting, and Three-Month Status Reports
    a. Operator’s Compliance Response Form

Properly completing forms such as those contained in Appendix H meet the inspection requirement of NYS-DEC SPDES GP for Construction Activities. Completed forms shall be kept on site at all times and made available to authorities upon request.
I. PRE-CONSTRUCTION MEETING DOCUMENTS

Project Name ____________________________________________

Permit No. ____________________________________________ Date of Authorization _______________

Name of Operator _________________________________________________________________

Prime Contractor ____________________________________________________________________

a. Preamble to Site Assessment and Inspections

The Following Information To Be Read By All Person’s Involved in The Construction of Stormwater Re-
lated Activities:

The Operator agrees to have a qualified professional\(^1\) conduct an assessment of the site prior to the com-
mencement of construction\(^2\) and certify in this inspection report that the appropriate erosion and sediment
controls described in the SWPPP have been adequately installed or implemented to ensure overall prepared-
ness of the site for the commencement of construction.

Prior to the commencement of construction, the Operator shall certify in this site logbook that the SWPPP
has been prepared in accordance with the State’s standards and meets all Federal, State and local erosion
and sediment control requirements.

When construction starts, site inspections shall be conducted by the qualified professional at least every 7
calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater (Construction Dura-
tion Inspections). The Operator shall maintain a record of all inspection reports in this site logbook. The site
logbook shall be maintained on site and be made available to the permitting authorities upon request. The
Operator shall post at the site, in a publicly accessible location, a summary of the site inspection activities
on a monthly basis (Monthly Summary Report).

The operator shall also prepare a written summary of compliance with this general permit at a minimum
frequency of every three months (Operator’s Compliance Response Form), while coverage exists. The sum-
mary should address the status of achieving each component of the SWPPP.

Prior to filing the Notice of Termination or the end of permit term, the Operator shall have a qualified pro-
fessional perform a final site inspection. The qualified professional shall certify that the site has undergone
final stabilization\(^3\) using either vegetative or structural stabilization methods and that all temporary erosion
and sediment controls (such as silt fencing) not needed for long-term erosion control have been removed.
In addition, the Operator must identify and certify that all permanent structures described in the SWPPP
have been constructed and provide the owner(s) with an operation and maintenance plan that ensures the
structure(s) continuously functions as designed.

1 “Qualified Professional means a person knowledgeable in the principles and practice of erosion and sediment controls,
such as a Certified Professional in Erosion and Sediment Control (CPESC), soil scientist, licensed engineer or someone
working under the direction and supervision of a licensed engineer (person must have experience in the principles and
practices of erosion and sediment control).
2 “Commencement of construction” means the initial removal of vegetation and disturbance of soils associated with
clearing, grading or excavating activities or other construction activities.
3 “Final stabilization” means that all soil-disturbing activities at the site have been completed and a uniform, perennial
vegetative cover with a density of eighty (80) percent has been established or equivalent stabilization measures (such as
the use of mulches or geotextiles) have been employed on all unpaved areas and areas not covered by permanent struc-
tures.
b. Operators Certification

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. Further, I hereby certify that the SWPPP meets all Federal, State, and local erosion and sediment control requirements. I am aware that false statements made herein are punishable as a class A misdemeanor pursuant to Section 210.45 of the Penal Law.

Name (please print): ________________________________
Title __________________________________________ Date: __________________
Address: ________________________________________
Phone: __________ Email: ____________________________
Signature: _________________________________________

c. Qualified Professional's Credentials & Certification

“I hereby certify that I meet the criteria set forth in the General Permit to conduct site inspections for this project and that the appropriate erosion and sediment controls described in the SWPPP and as described in the following Pre-construction Site Assessment Checklist have been adequately installed or implemented, ensuring the overall preparedness of this site for the commencement of construction.”

Name (please print): ________________________________
Title __________________________________________ Date: __________________
Address: ________________________________________
Phone: __________ Email: ____________________________
Signature: _________________________________________
d. Pre-construction Site Assessment Checklist
   (NOTE: Provide comments below as necessary)

1. Notice of Intent, SWPPP, and Contractors Certification:
   **Yes No NA**
   [ ] [ ] [ ] Has a Notice of Intent been filed with the NYS Department of Conservation?
   [ ] [ ] [ ] Is the SWPPP on-site? Where?
   [ ] [ ] [ ] Is the Plan current? What is the latest revision date?
   [ ] [ ] [ ] Is a copy of the NOI (with brief description) onsite? Where?
   [ ] [ ] [ ] Have all contractors involved with stormwater related activities signed a contractor’s certification?

2. Resource Protection
   **Yes No NA**
   [ ] [ ] [ ] Are construction limits clearly flagged or fenced?
   [ ] [ ] [ ] Important trees and associated rooting zones, on-site septic system absorption fields, existing vegetated areas suitable for filter strips, especially in perimeter areas, have been flagged for protection.
   [ ] [ ] [ ] Creek crossings installed prior to land-disturbing activity, including clearing and blasting.

3. Surface Water Protection
   **Yes No NA**
   [ ] [ ] [ ] Clean stormwater runoff has been diverted from areas to be disturbed.
   [ ] [ ] [ ] Bodies of water located either on site or in the vicinity of the site have been identified and protected.
   [ ] [ ] [ ] Appropriate practices to protect on-site or downstream surface water are installed.
   [ ] [ ] [ ] Are clearing and grading operations divided into areas <5 acres?

4. Stabilized Construction Entrance
   **Yes No NA**
   [ ] [ ] [ ] A temporary construction entrance to capture mud and debris from construction vehicles before they enter the public highway has been installed.
   [ ] [ ] [ ] Other access areas (entrances, construction routes, equipment parking areas) are stabilized immediately as work takes place with gravel or other cover.
   [ ] [ ] [ ] Sediment tracked onto public streets is removed or cleaned on a regular basis.

5. Perimeter Sediment Controls
   **Yes No NA**
   [ ] [ ] [ ] Silt fence material and installation comply with the standard drawing and specifications.
   [ ] [ ] [ ] Silt fences are installed at appropriate spacing intervals.
   [ ] [ ] [ ] Sediment/detention basin was installed as first land disturbing activity.
   [ ] [ ] [ ] Sediment traps and barriers are installed.

6. Pollution Prevention for Waste and Hazardous Materials
   **Yes No NA**
   [ ] [ ] [ ] The Operator or designated representative has been assigned to implement the spill prevention avoidance and response plan.
   [ ] [ ] [ ] The plan is contained in the SWPPP on page ______
   [ ] [ ] [ ] Appropriate materials to control spills are onsite. Where? ________________
II. CONSTRUCTION DURATION INSPECTIONS

a. Directions:

Inspection Forms will be filled out during the entire construction phase of the project.

Required Elements:

(1) On a site map, indicate the extent of all disturbed site areas and drainage pathways. Indicate site areas that are expected to undergo initial disturbance or significant site work within the next 14-day period;

(2) Indicate on a site map all areas of the site that have undergone temporary or permanent stabilization;

(3) Indicate all disturbed site areas that have not undergone active site work during the previous 14-day period;

(4) Inspect all sediment control practices and record the approximate degree of sediment accumulation as a percentage of sediment storage volume (for example, 10 percent, 20 percent, 50 percent);

(5) Inspect all erosion and sediment control practices and record all maintenance requirements such as verifying the integrity of barrier or diversion systems (earthen berms or silt fencing) and containment systems (sediment basins and sediment traps). Identify any evidence of rill or gully erosion occurring on slopes and any loss of stabilizing vegetation or seeding/mulching. Document any excessive deposition of sediment or ponding water along barrier or diversion systems. Record the depth of sediment within containment structures, any erosion near outlet and overflow structures, and verify the ability of rock filters around perforated riser pipes to pass water; and

(6) Immediately report to the Operator any deficiencies that are identified with the implementation of the SWPPP.
<table>
<thead>
<tr>
<th>Inspector (print name)</th>
<th>Date of Inspection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualified Professional (print name)</td>
<td>Qualified Professional Signature</td>
</tr>
</tbody>
</table>

The above signed acknowledges that, to the best of his/her knowledge, all information provided on the forms is accurate and complete.
Maintaining Water Quality

Yes No NA

[ ] [ ] [ ] Is there an increase in turbidity causing a substantial visible contrast to natural conditions?
[ ] [ ] [ ] Is there residue from oil and floating substances, visible oil film, or globules or grease?
[ ] [ ] [ ] All disturbance is within the limits of the approved plans.
[ ] [ ] [ ] Have receiving lake/bay, stream, and/or wetland been impacted by silt from project?

Housekeeping

1. General Site Conditions

Yes No NA

[ ] [ ] [ ] Is construction site litter and debris appropriately managed?
[ ] [ ] [ ] Are facilities and equipment necessary for implementation of erosion and sediment control in working order and/or properly maintained?
[ ] [ ] [ ] Is construction impacting the adjacent property?
[ ] [ ] [ ] Is dust adequately controlled?

2. Temporary Stream Crossing

Yes No NA

[ ] [ ] [ ] Maximum diameter pipes necessary to span creek without dredging are installed.
[ ] [ ] [ ] Installed non-woven geotextile fabric beneath approaches.
[ ] [ ] [ ] Is fill composed of aggregate (no earth or soil)?
[ ] [ ] [ ] Rock on approaches is clean enough to remove mud from vehicles & prevent sediment from entering stream during high flow.

Runoff Control Practices

1. Excavation Dewatering

Yes No NA

[ ] [ ] [ ] Upstream and downstream berms (sandbags, inflatable dams, etc.) are installed per plan.
[ ] [ ] [ ] Clean water from upstream pool is being pumped to the downstream pool.
[ ] [ ] [ ] Sediment laden water from work area is being discharged to a silt-trapping device.
[ ] [ ] [ ] Constructed upstream berm with one-foot minimum freeboard.

2. Level Spreader

Yes No NA

[ ] [ ] [ ] Installed per plan.
[ ] [ ] [ ] Constructed on undisturbed soil, not on fill, receiving only clear, non-sediment laden flow.
[ ] [ ] [ ] Flow sheets out of level spreader without erosion on downstream edge.

3. Interceptor Dikes and Swales

Yes No NA

[ ] [ ] [ ] Installed per plan with minimum side slopes 2H:1V or flatter.
[ ] [ ] [ ] Stabilized by geotextile fabric, seed, or mulch with no erosion occurring.
[ ] [ ] [ ] Sediment-laden runoff directed to sediment trapping structure
### Runoff Control Practices (continued)

4. Stone Check Dam

**Yes No NA**
- [ ] [ ] [ ] Is channel stable? (flow is not eroding soil underneath or around the structure).
- [ ] [ ] [ ] Check is in good condition (rocks in place and no permanent pools behind the structure).
- [ ] [ ] [ ] Has accumulated sediment been removed?

5. Rock Outlet Protection

**Yes No NA**
- [ ] [ ] [ ] Installed per plan.
- [ ] [ ] [ ] Installed concurrently with pipe installation.

**Soil Stabilization**

1. Topsoil and Spoil Stockpiles

**Yes No NA**
- [ ] [ ] [ ] Stockpiles are stabilized with vegetation and/or mulch.
- [ ] [ ] [ ] Sediment control is installed at the toe of the slope.

2. Revegetation

**Yes No NA**
- [ ] [ ] [ ] Temporary seedings and mulch have been applied to idle areas.
- [ ] [ ] [ ] 4 inches minimum of topsoil has been applied under permanent seedings

**Sediment Control Practices**

1. Stabilized Construction Entrance

**Yes No NA**
- [ ] [ ] [ ] Stone is clean enough to effectively remove mud from vehicles.
- [ ] [ ] [ ] Installed per standards and specifications?
- [ ] [ ] [ ] Does all traffic use the stabilized entrance to enter and leave site?
- [ ] [ ] [ ] Is adequate drainage provided to prevent ponding at entrance?

2. Silt Fence

**Yes No NA**
- [ ] [ ] [ ] Installed on Contour, 10 feet from toe of slope (not across conveyance channels).
- [ ] [ ] [ ] Joints constructed by wrapping the two ends together for continuous support.
- [ ] [ ] [ ] Fabric buried 6 inches minimum.
- [ ] [ ] [ ] Posts are stable, fabric is tight and without rips or frayed areas.
- Sediment accumulation is ___% of design capacity.
CONSTRUCTION DURATION INSPECTIONS

Sediment Control Practices (continued)

3. Storm Drain Inlet Protection (Use for Stone & Block; Filter Fabric; Curb; or, Excavated practices)
   Yes No NA
   [ ] [ ] [ ] Installed concrete blocks lengthwise so open ends face outward, not upward.
   [ ] [ ] [ ] Placed wire screen between No. 3 crushed stone and concrete blocks.
   [ ] [ ] [ ] Drainage area is 1 acre or less.
   [ ] [ ] [ ] Excavated area is 900 cubic feet.
   [ ] [ ] [ ] Excavated side slopes should be 2:1.
   [ ] [ ] [ ] 2” x 4” frame is constructed and structurally sound.
   [ ] [ ] [ ] Posts 3-foot maximum spacing between posts.
   [ ] [ ] [ ] Fabric is embedded 1 to 1.5 feet below ground and secured to frame/posts with staples at max 8-inch spacing.
   [ ] [ ] [ ] Posts are stable, fabric is tight and without rips or frayed areas.
   Sediment accumulation ___% of design capacity.

4. Temporary Sediment Trap
   Yes No NA
   [ ] [ ] [ ] Outlet structure is constructed per the approved plan or drawing.
   [ ] [ ] [ ] Geotextile fabric has been placed beneath rock fill.
   Sediment accumulation is ___% of design capacity.

5. Temporary Sediment Basin
   Yes No NA
   [ ] [ ] [ ] Basin and outlet structure constructed per the approved plan.
   [ ] [ ] [ ] Basin side slopes are stabilized with seed/mulch.
   [ ] [ ] [ ] Drainage structure flushed and basin surface restored upon removal of sediment basin facility.
   Sediment accumulation is ___% of design capacity.

Note: Not all erosion and sediment control practices are included in this listing. Add additional pages to this list as required by site specific design. Construction inspection checklists for post-development stormwater management practices can be found in Appendix F of the New York Stormwater Management Design Manual.
CONSTRUCTION DURATION INSPECTIONS

b. Modifications to the SWPPP (To be completed as described below)

The Operator shall amend the SWPPP whenever:
1. There is a significant change in design, construction, operation, or maintenance which may have a significant effect on the potential for the discharge of pollutants to the waters of the United States and which has not otherwise been addressed in the SWPPP; or
2. The SWPPP proves to be ineffective in:
   a. Eliminating or significantly minimizing pollutants from sources identified in the SWPPP and as required by this permit; or
   b. Achieving the general objectives of controlling pollutants in stormwater discharges from permitted construction activity; and
3. Additionally, the SWPPP shall be amended to identify any new contractor or subcontractor that will implement any measure of the SWPPP.

Modification & Reason:

______________________________________________________________________________________
______________________________________________________________________________________
______________________________________________________________________________________
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______________________________________________________________________________________
III. Monthly Summary of Site Inspection Activities

<table>
<thead>
<tr>
<th>Date of Inspection</th>
<th>Regular / Rainfall based Inspection</th>
<th>Name of Inspector</th>
<th>Items of Concern</th>
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</table>

**Owner/Operator Certification:**

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that false statements made herein are punishable as a class A misdemeanor pursuant to Section 210.45 of the Penal Law."

______________________________  ____________________________________________________
Signature of Permittee or Duly Authorized Representative  Name of Permittee or Duly Authorized Representative Date

Duly authorized representatives must have written authorization, submitted to DEC, to sign any permit documents.
APPENDIX D

HYDROLOGIC CALCULATIONS

(WIN TR-55)
PRE-CONSTRUCTION
WinTR-55 Current Data Description

--- Identification Data ---
User: ERK                                    Date: 9/20/2010
Project: CWTP at LCP                            Units: English
SubTitle: Pre-Construction                        Areal Units: Acres
State: New York
County: Onondaga
Filename: P:\Honeywell -SYR\445568 Geddes Brook IRM Design\09 Reports\9.1 Work Plans\SWPPP for CWTP area

--- Sub-Area Data ---

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Reach</th>
<th>Area(ac)</th>
<th>RCN</th>
<th>Tc</th>
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</thead>
<tbody>
<tr>
<td>Sub Area A</td>
<td>on-site</td>
<td>Outlet</td>
<td>6.33</td>
<td>69</td>
<td>.729</td>
</tr>
<tr>
<td>Sub Area B</td>
<td>off-site (LCP)</td>
<td>Outlet</td>
<td>5.04</td>
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<td>.589</td>
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Total area: 11.37 (ac)

--- Storm Data ---

Rainfall Depth by Rainfall Return Period

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<th>2-Yr (in)</th>
<th>5-Yr (in)</th>
<th>10-Yr (in)</th>
<th>25-Yr (in)</th>
<th>50-Yr (in)</th>
<th>100-Yr (in)</th>
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Storm Data Source: Onondaga County, NY (NRCS)
Rainfall Distribution Type: Type II
Dimensionless Unit Hydrograph: <standard>
## Storm Data

### Rainfall Depth by Rainfall Return Period

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Storm Data Source: Onondaga County, NY (NRCS)

Rainfall Distribution Type: Type II

Dimensionless Unit Hydrograph: <standard>
### Watershed Peak Table

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<th>Sub-Area or Reach Identifier</th>
<th>Peak Flow by Rainfall Return Period</th>
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<td>Sub-Area A</td>
<td>ANALYSIS: (cfs) 5-Yr 10-Yr 25-Yr 50-Yr 100-Yr 1-Yr</td>
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<td>1.51 2.89 4.52 6.64 7.59 8.91 0.80</td>
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<td>OUTLET</td>
<td>1.70 3.61 6.06 9.44 11.03 13.26 0.80</td>
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ERK
CWTP at LCP
Pre-Construction
Onondaga County, New York

Hydrograph Peak/Peak Time Table

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<th>Peak Flow (cfs)</th>
<th>Peak Time (hr)</th>
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REACHES

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<th>Time of Concentration (hr)</th>
<th>Curve Number</th>
<th>Receiving Reach</th>
<th>Description</th>
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<td>Outlet</td>
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<td>Sub Area B</td>
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<td>0.589</td>
<td>58</td>
<td>Outlet</td>
<td>off-site (LCP)</td>
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</table>

Total Area: 11.37 (ac)
Sub-Area Time of Concentration Details

<table>
<thead>
<tr>
<th>Sub-Area Identifier/ Flow</th>
<th>Length (ft)</th>
<th>Slope (ft/ft)</th>
<th>Mannings's n</th>
<th>End Area (sq ft)</th>
<th>Wetted Perimeter (ft)</th>
<th>Velocity (ft/sec)</th>
<th>Travel Time (hr)</th>
<th>Time of Concentration</th>
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</thead>
<tbody>
<tr>
<td>SHEET</td>
<td>100</td>
<td>0.0200</td>
<td>0.400</td>
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<td>SHEALLOW</td>
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<td>0.012</td>
<td>0.01</td>
<td>8.82</td>
<td>0.085</td>
<td>0.293</td>
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<tr>
<td>Time of Concentration</td>
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Sub Area B

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<th>Slope (ft/ft)</th>
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<th>End Area (sq ft)</th>
<th>Wetted Perimeter (ft)</th>
<th>Velocity (ft/sec)</th>
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<td>Time of Concentration</td>
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## Sub-Area Land Use and Curve Number Details

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<th>Land Use</th>
<th>Hydrologic Soil Group</th>
<th>Sub-Area Area (ac)</th>
<th>Curve Number</th>
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</thead>
<tbody>
<tr>
<td>Sub Area APaved; curbs and storm sewers</td>
<td>B</td>
<td>.076</td>
<td>98</td>
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<tr>
<td>Gravel (w/ right-of-way)</td>
<td>B</td>
<td>2.465</td>
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<tr>
<td>Brush - brush, weed, grass mix (fair)</td>
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<tr>
<td>Woods (fair)</td>
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<tr>
<td><strong>Total Area / Weighted Curve Number</strong></td>
<td></td>
<td>6.33</td>
<td>69</td>
<td></td>
</tr>
<tr>
<td>Sub Area BPaved parking lots, roofs, driveways</td>
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<tr>
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POST-CONSTRUCTION
WinTR-55 Current Data Description

--- Identification Data ---

User: ERK                                    Date: 9/20/2010  
Project: CWTP at LCP                   Units: English  
Subtitle: Post-Construction                  Areal Units: Acres  
State: New York                          
County: Onondaga                        
Filename: P:\Honeywell -SYR\445568 Geddes Brook IRM Design\09 Reports\9.1 Work Plans\SWPPP for CWTP area

--- Sub-Area Data ---

Name               Description          Reach     Area(ac)     RCN     Tc
---------------------------------------          -------     -------     ------   ---
Sub Area A       Former CWTP            Outlet     6.33         59    .729
Sub Area B       LCP Containment        Outlet     4.71         58    .53  
Total area: 11.04 (ac)

--- Storm Data ---

Rainfall Depth by Rainfall Return Period

<table>
<thead>
<tr>
<th>2-Yr (in)</th>
<th>5-Yr (in)</th>
<th>10-Yr (in)</th>
<th>25-Yr (in)</th>
<th>50-Yr (in)</th>
<th>100-Yr (in)</th>
<th>1-Yr (in)</th>
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Storm Data Source: Onondaga County, NY (NRCS)  
Rainfall Distribution Type: Type II  
Dimensionless Unit Hydrograph: <standard>
Storm Data

Rainfall Depth by Rainfall Return Period

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<th></th>
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<th>10-Yr</th>
<th>25-Yr</th>
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<td>(in)</td>
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Storm Data Source: Onondaga County, NY (NRCS)
Rainfall Distribution Type: Type II
Dimensionless Unit Hydrograph: <standard>
Watershed Peak Table

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<th>10-Yr (cfs)</th>
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<td>Sub Area B</td>
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REACHES

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<th>100-Yr (cfs)</th>
<th>1-Yr (cfs)</th>
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<tbody>
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## Hydrograph Peak/Peak Time Table

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<th>Peak Time (hr)</th>
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<td>Sub-Area A</td>
<td>0.29</td>
<td>0.94</td>
<td>1.91</td>
<td>3.38</td>
<td>4.09</td>
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<td>1.60</td>
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<td>9.22</td>
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<td>Sub-Area Identifier</td>
<td>Drainage Area (ac)</td>
<td>Time of Concentration (hr)</td>
<td>Curve Number</td>
<td>Receiving Reach</td>
<td>Description</td>
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<tr>
<td>Sub Area A</td>
<td>6.33</td>
<td>0.729</td>
<td>59</td>
<td>Outlet</td>
<td>Former CWTP</td>
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<tr>
<td>Sub Area B</td>
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<td>0.530</td>
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<td>Outlet</td>
<td>LCP Containment</td>
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Total Area: 11.04 (ac)
Sub-Area Time of Concentration Details

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<tr>
<th>Sub-Area Identifier/ Flow Length (ft)</th>
<th>Slope (ft/ft)</th>
<th>Mannings's n</th>
<th>End Area (sq ft)</th>
<th>Perimeter (ft)</th>
<th>Velocity (ft/sec)</th>
<th>Time (hr)</th>
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<tbody>
<tr>
<td>SHEET</td>
<td>100</td>
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<td>0.400</td>
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<td>0.397</td>
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<td>SHALLOW</td>
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<td>0.050</td>
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<tr>
<td>CHANNEL</td>
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<td>0.0160</td>
<td>0.025</td>
<td>2.50</td>
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<td>CHANNEL</td>
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<td>0.012</td>
<td>0.01</td>
<td>8.82</td>
<td>0.085</td>
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Time of Concentration: 0.729

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| Sub Area B | SHEET | 100 | 0.0550 | 0.240 | 0.176 |
|------------------------------------------------------------------|
| SHALLOW         | 540   | 0.0440| 0.050  | 0.044 |
| CHANNEL         | 295   | 0.0200| 0.030  | 2.50  | 4.33  | 4.820  | 0.017 |
| CHANNEL         | 90    | 0.0040| 0.012  | 0.01  | 8.82  | 0.085  | 0.293 |

Time of Concentration: 0.53

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<table>
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<tr>
<th>Sub-Area Identifier</th>
<th>Land Use</th>
<th>Hydrologic Soil Group</th>
<th>Hydrologic Area (ac)</th>
<th>Curve Number</th>
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<tbody>
<tr>
<td>Sub Area APaved parking lots, roofs, driveways</td>
<td>B</td>
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<tr>
<td>Meadow -cont. grass (non grazed)</td>
<td>B</td>
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<tr>
<td>Woods (fair)</td>
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<td>Total Area / Weighted Curve Number</td>
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<td>6.33</td>
<td>59</td>
<td></td>
</tr>
<tr>
<td>Sub Area BPaved parking lots, roofs, driveways</td>
<td>B</td>
<td>.04</td>
<td>98</td>
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<tr>
<td>Meadow -cont. grass (non grazed)</td>
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<tr>
<td>Brush - brush, weed, grass mix (fair)</td>
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<tr>
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<td>58</td>
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