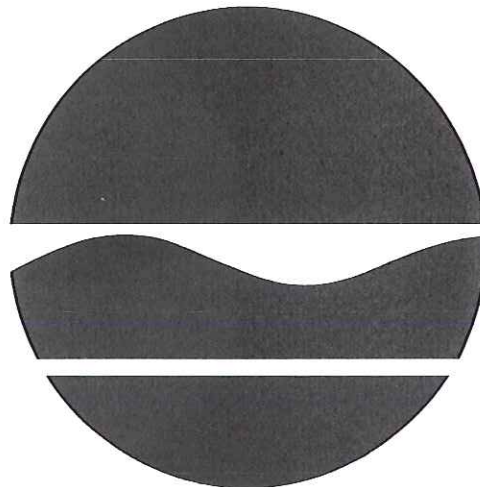


**Altech Specialty Steel OU2A
Willowbrook Pond**

REMEDIAL ACTION

**City of Dunkirk, Chautauqua County, New York
Inactive Hazardous Waste Site Number 907022**

**ADDENDUM NUMBER 1
TO CONTRACT D008535**



Prepared by:

Shaw Environmental Inc.

and

**New York State Department of Environmental Conservation
Division of Environmental Remediation**

**ADDENDUM NUMBER 1
TO THE JANUARY 2013 CONTRACT DOCUMENTS
FOR
REMEDIAL ACTION
ALTECH SPECIALTY STEEL OU2A SITE
CITY OF DUNKIRK, CHAUTAUQUA COUNTY, NEW YORK
CONTRACT NO. D008535
January 18, 2013**

TO ALL HOLDERS OF THE CONTRACT DOCUMENTS:

Your attention is directed to the following changes and additions to the January 2013 Contract Documents for the Altech Specialty Steel OU2A Willowbrook Pond Site. This addendum has been prepared in accordance with the provisions of the Contract Documents.

1. **a. Table of Contents: Page 1 of 2;** Bid Forms and Attachments; Article 1; A new article associated with the Iran Divestment Act has been included in this section as Article 1(g). Existing Articles 1(g), 1(h), and 1(i) have been renumbered 1(h), 1(i), and 1(j).

b. Table of Contents: Page 2 of 2; references to **Section V, Article 2 (a)** has been removed. References to the remaining Articles 2(b), 2(c), and 2(d) have been renumbered 2(a), 2(b), and 2(c).
2. **Section I – Advertisement and Notice to Bidders, Page I-1, 3rd Paragraph;** References to the words, “only”, “Access”, and “biddable” have been removed from the first two sentences of the 3rd paragraph. The first two sentences of the 3rd paragraph have been revised to now read as follows, “*Contract Documents are available in electronic format at no charge. Electronic copies of Contract Documents drawings, specifications, proposal forms, addenda, and a separate Limited Site Data.....*”.
3. **Section II – Terms and Definitions, Page II-3;** An additional definition has been inserted for the term, “Joint Venture” that reads as follows,

“*Joint Venture – An association of two or more individuals or companies engaged in a solitary business enterprise for profit without actual partnership or incorporation.*”
4. **Section III – Article 3 Bid Instructions, Page III-2;** An additional paragraph has been inserted after the second paragraph that reads as follows,

“*Bids of a joint venture must be signed by an agent or attorney-in-fact for the joint venture and shall by evidence of his or her authority to act on behalf of all members of the joint venture. ”*

5. Section III – Article 5.a Required Bid Submittals, Page III-4; An additional bullet has been inserted after bullet no. 7 that reads as follows,

“ In the case of a legally constituted joint venture, the bidders must submit a copy of the written joint venture agreement with their bid. Each member can only be part of one (1) joint venture. The agreement shall clearly define the relationship and services to be performed by each member, identify the authorized representative for each member, designate the lead principal participant, provide proof of insurance, identify percent equity share held by each member, and include any other relevant information.

The bidder must also submit a statement signed by the bidder's authorized representative acknowledging that such entities will be required to provide evidence of joint and several liability for the bidder's obligations under the Contract. If the entity is an LLC, a statement signed by the bidder's authorized representative acknowledging that such entities will be required to provide guarantees of the bidder's obligations under the Contract.

If the joint venture has not yet been legally formed, then the bidder must submit a description of the proposed legal structure and draft copies of the underlying documents, including: a) all significant terms of the joint venture or partnership, including the rules relative to the administration of the joint venture, limited liability company or partnership, including dealing with deadlock situations; b) description of how the joint venture, limited liability company or partnership will operate administratively and technically; and c) a teaming agreement or comparable document setting forth the equity members' agreement to form the organization.”

6. Section III – Article 5.b Bidding Information and Requirements, Page III-4;

- a. 4th bullet; The reference to “\$1 million” has been deleted and replaced with “\$5 million”. The revised bullet now reads as follows, *“A copy of the proposed site Pollution Liability insurance policy demonstrating that the bidder has the required \$5 million of Pollution Liability insurance.”*
- b. 6th bullet; The first sentence has been revised to read as follows, *“ Proof of Availability of insurance or Certificate of insurance with endorsement, that name the Department and State of New York as additional insured (for most insurance types, workers compensation and disability being notable exceptions), including written verification that the insurance carrier(s).....”*
- c. 7th bullet; The following language has been inserted at the end of this article that reads as follows,

“ In the case of a joint venture, each member will be required to complete and submit a NYS Vendor Responsibility Questionnaire or an affidavit of no change (if appropriate).”

7. **Section III – Article 10, Experience and Financial Statements**, Page III-6; An additional paragraph has been inserted after the fourth paragraph which reads as follows,

- a. *“ In the case of a joint venture, each member must meet the experience requirements specified in Section 3, Article 17. A bid cannot be submitted by a bidder, including a joint venture, where the bidder or one of the members of a joint venture has less than 3 years satisfactory experience in construction of the work to be performed, unless the bidder or member of a joint venture is a successor in interest to a pre-existing company which meets the required minimum of 3 years satisfactory experience in construction of the work to be performed.”*
- b. All on-site personnel are required to have 40 hour OSHA training plus a current eight-hour refresher; baseline medical monitoring plus a current yearly physical and training and current fit testing for respirator use.

Additionally, the successful Contractor must be compliant with Section X – Standard Specifications, SPEC 00003 – Minimum Requirements for Health and Safety and the Occupational Safety and Health Administration (OSHA) Standards and Regulations contained in Title 29, Code of Federal Regulations, Parts 1910 and 1926 (20 CFR 1910 and 1926) and subsequent additions and/or modifications, the New York State Labor Law Section 876 (Right-to-Know Law), the Standard Operating Safety Guidelines by the United States Environmental Protection Agency (EPA), Office of Emergency and Remedial Response and the Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities (NIOSH, OSHA, USCG, and EPA) provide the basis for the safety and health program. Additional specifications within this section are in addition to OSHA regulations and reflect the positions of both the EPA and the National Institute for Occupation Safety and Health (NIOSH) regarding procedures required to ensure safe operations at abandoned hazardous waste disposal sites.

8. **Section III – Article 17, Bidding Information and Requirements**, Page III-9; The 3rd paragraph in this section has been revised to include the following text after the last sentence, *“ This experience must include, but not be limited to, the excavation, transportation, and handling of hazardous waste and contaminated soil/sediment. Experience must also include the handling and treatment of contaminated water generated from hazardous waste operations. For work to be deemed satisfactory, the work must have been performed with required oversight from USEPA, NYSDEC, or an equivalent environmental regulatory state agency (i.e., New Jersey DEP, Pennsylvania DER, etc.). Brownfield cleanup work qualifies for the experience requirement. The bidder cannot meet the minimum experience requirements through the use of subcontractor(s).”*

9. **Section V – Article 1;** A new article has been inserted associated with the Iran Divestment Act in this section as Article 1(g). The article reads as follows,

*“ **Article 1(g) - Iran Divestment Act***

i. As a result of the Iran Divestment Act of 2012 (Act), Chapter 1 of the Laws of New York, a new provision has been added to the State Finance Law (SFL), §165-a, effective April 12, 2012. Under the Act, the Commissioner of the Office of General Services (OGS) will be developing a list (prohibited entities list) of “persons” who are engaged in “investment activities in Iran” 9both are defined term in the law). Pursuant to SFL §165-a(3)(b), the initial list is expected to be issued no later than 120 days after the effective date, at which time it will be posted on the OGS website.

ii. By submitting a bid in response to this solicitation or by assuming the responsibility of a Contract award hereunder, Bidder/Contractor (or any assignee) certifies that once the prohibited entities list is posted on the OGS website, it will not utilize on such Contract any subcontractor that is identified on the prohibited entities list.

iii. Additionally, Bidder/Contractor is advised that once the list if posted on the OGS website, any Contractor seeking to renew or extend a Contract or assume the responsibility of a Contract award in response to the solicitation, must certify at the time the Contract is renewed, extended or assigned that it is not included on the prohibited entities list.

iv. During the term of the Contract, should the Department receive information that a person is in violation of the above-referenced certification, the Department will offer the person an opportunity to respond. If the person fails to demonstrate that it has ceased its engagement in the investment which is in violation of the Act within 90 days after the determination of such violation, then the Department shall take such action as may be appropriate including, but not limited to, imposing sanctions, seeking compliance, recovering damages, or declaring the Contractor in default.

v. The Department reserves the right to reject any bid or request for assignment for any entity that appears on the prohibited entities list prior to the award of a contract, and to pursue a responsibility review with the respect to any entity that is awarded a contract and appears on the prohibited entities list after contract award.”

Existing Articles 1(g), 1(h), and 1(i) have been renumbered 1(h), 1(i), and 1(j).

10. **Section V – Article 2(a) Corporate Resolution and Certification;** This Article has been removed in its entirety from the Contract. Remaining Articles 2(b), 2(c), and 2(d) have been renumbered 2(a), 2(b), and 2(c).
11. **Section V – Article 3(a) Instructions for Certificate of Insurance, Page V-17;** An additional sentence has been included under the first sentence of this section to read as follows, *“The Contractor is required to obtain and submit copies of policy endorsements that name the Department and State of New York as additional insured (for most insurance types, workers compensation and disability being notable exceptions).”*

12. **Section VI – Agreement;** Page V-10 has been deleted and replaced with a new acknowledgement page.
13. **Section VII – Appendix A;** Appendix A, dated June 2006, is hereby replaced by Appendix A, dated December 2012
14. **Section VIII – Article 4.2.2.5, Page VIII-9 ;**
 - a. The first sentence in this article has been revised to read as follows, *“The Contractor shall maintain in full force and effect throughout the Term, pollution legal liability insurance with limits of not less than \$5,000,000, providing coverage for bodily injury and property damage, including loss of use of damaged property or of property that has not been physically injured.”*
 - b. The fourth line of this article has been revised to read as follows, *“.....pollution legal liability insurance with limits of not less than \$5,000,000, providing....”*
15. **Section IX – Supplementary Conditions;** Add the following condition:

“ Bid Protest Guidelines:

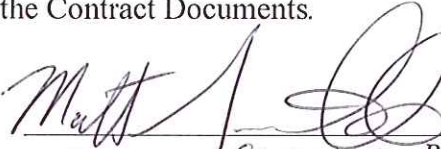
The intent and purpose of these guidelines is to set forth the procedure to be utilized when an interested party challenges a contract bid award solicited by the Division of Environmental Remediation and routed to the Office of State Comptroller (OSC) for approval pursuant to the provisions of Section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

The protester is responsible for complying with the restrictions on "contacts" under the Procurement Lobbying Law (state finance Law, Section 139-j). All protests must be submitted to the Designated Department Contact listed in the Contract Documents (See Section I, Section II, Section III, Articles 3 and 21)

1. *The bid protest must be submitted within 10 Business days of the Department's Notification of Intent to Award letter being sent to the apparent low bidder.*
2. *The bid protest must be submitted in writing and must contain specific factual and/or legal allegations setting forth the basis on which the protesting party challenges the contract award. The notice of protest must be filed by the signatory of the bid or an attorney representing the bidder. Any filing deadlines may be waived by the Department at its own discretion.*
3. *The Designated Department Contact will promptly submit the notice of protest, a bid protest summary and relevant bid documents to the Division of Management and Budget Services and the Office of General Counsel (OGC).*
4. *Once the formal notice of protest is filed, the Department, at its sole discretion, may continue or suspend the contract award process until the protest is resolved and a final Department determination is made.*

As set forth in Section 3, Article 17 of the Contract documents, the Department reserves the right to reject any and all bids, to waive any and all informalities or irregularities, to disregard all nonconforming, nonresponsive, or conditional Bids, or to re-advertise for bids."

This ADDENDUM No. 1 becomes part of the Contract Documents.


MATTHEW SAUSVILLE, P.E.

Dated: 01/17/2013



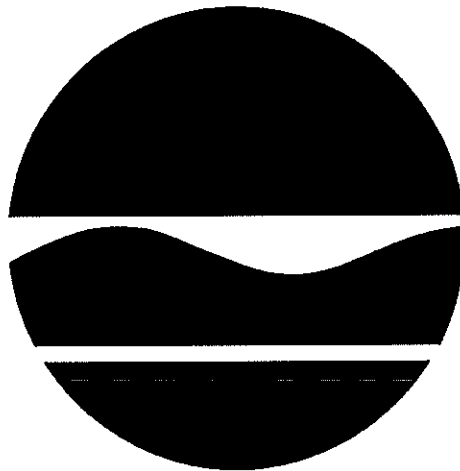
ALTECH SPECIALTY STEEL OU2A WILLOWBROOK POND

REMEDIAL ACTION

**City of Dunkirk, Chautauqua County, New York
Inactive Hazardous Waste Site Number 907022**

ADDENDUM NUMBER 2 TO CONTRACT D008535

May 17, 2013



**Prepared by:
Shaw Environmental, Inc.
and
New York State Department of Environmental Conservation
Division of Environmental Remediation**

**ADDENDUM NUMBER 2
TO THE APRIL 2013 CONTRACT DOCUMENTS
FOR
REMEDIAL ACTION
ALTECH SPECIALTY STEEL OU2A SITE
CITY OF DUNKIRK, CHAUTAUQUA COUNTY, NEW YORK
CONTRACT NO. D008535
MAY 17, 2013**

TO ALL HOLDERS OF THE CONTRACT DOCUMENTS:

Your attention is directed to the following changes and additions to the April 2013 Contract Documents for the Altech Specialty Steel Site OU2A. This addendum has been prepared in accordance with the provisions of the Contract Documents.

1. SECTION V; CONTRACT BID FORM AND ACKNOWLEDGEMENT:

- a. **** Bid Form**; A revised bid form, pages V-1 thru V-3B, has been incorporated as **Attachment A**, for the potential bidders to complete and submit with the other required bid submittals and as stipulated within the Contract Documents. The changes have been highlighted in red on the revised bid form.

**** The Bidder must use the attached revised bid form when completing and submitting their bid to the Department. Bidders utilizing the original bid form, pages V-1 through V-4, within Section V of the April 2013 Contract Documents will have their bid rejected.**

2. SECTION VI; AGREEMENT:

- a. **Article 5 – Contractor Representations:** Include new Article 5.7 which reads as follows,

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

- b. **Article 12 – Postponement, Suspension or Termination:** Include two new articles, 12.6 and 12.7 which read as follows:

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

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

- c. **New Article 19 – Vendor Responsibility:** A new article replaces the existing Article 19 and reads as follows,

“The Department recommends that vendors file a required Vendor Responsibility Questionnaire online via the New York State VendRep System. To enroll in and use the New York State VendRep System, see the VendRep System Instructions available at http://www.osc.state.ny.us/vendrep/vendor_index.htm or go directly to the VendRep System online at <https://portal.osc.state.ny.us>.

Vendors must provide their New York State Identification Number when enrolling. To request assignment of a Vendor ID or for VendRep System assistance, contact the Office of the State Comptroller’s Help Desk at 866-370-4672 or 518-408-4672 or by email at ciohelpdesk@osc.state.ny.us. Vendors opting to complete and submit a paper questionnaire can obtain the appropriate questionnaire from the VendRep website www.osc.state.ny.us/vendrep or may contact the Department of the Office of the State Comptroller’s Help Desk for a copy of the paper form.”

- d. **New Article 20 – Contract Price:** The old Article 19 (Contract Price) has been replaced. Article 19 has been renumbered to a new Article No. 20.

3. SECTION VII; APPENDIX B:

- a. Article VIII (c), Dispute Resolution; Replace “Laura Zeppetelli” as the *designated individual to hear disputes* with the following contact:

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

4. SECTION XI; SPECIFICATION 01120 – PROJECT IDENTIFICATION AND SIGNS:

- a. *Figure 01045-1*; Replace reference to the Altech Specialty Steel OU2A Site, Site No. 712009, Cortland County Administrator Martin Murphy. Replace with Altech Specialty Steel Site OU2A, Site No. 907022, Chautauqua County Administrator Timothy Hellwig.

5. SECTION XI; SPECIFICATION 01425 – SAMPLING:

- a. Sub-Part 3.03 Schedule, the Level of Reporting has been changed from Category B to Category A for Demolition/Debris Characterization (UC-16, UC-18, UC-20, UC-22) and Waste Characterization (UC-16, UC-18, UC-20, UC-22) sampling.
- b. Sub-Part 3.03 Schedule, Confirmatory Excavation Samples title has been revised to include the payment item and now reads Confirmatory Excavation Samples (UC-24).
- c. Sub-Part 3.03 Schedule, Willowbrook Pond Post-Excavation Confirmatory Bedrock Samples title has been revised to include the payment item and now reads Willowbrook Pond Post-Excavation Confirmatory Bedrock Samples (UC-24)
- d. Sub-Part 3.03 Schedule, Pre- and Post-Temporary Facilities title has been revised to include the payment item and now reads Pre- and Post-Temporary Facilities (UC-24)
- e. Sub-Part 3.03 Schedule, Waste Characterization title has been revised to include the payment item and now reads Waste Characterization (UC-16, UC-18, UC-20, UC-22)
- f. Sub-Part 3.03 Schedule, Demolition/Debris Characterization title has been revised to include the payment item and now reads Demolition/Debris Characterization (UC-16, UC-18, UC-20, UC-22)
- g. Sub-Part 3.03 Schedule, Imported Material Characterization title has been revised to include the payment item and now reads Imported Material Characterization (UC-14, UC-15, UC-17, UC-19, UC-21)
- h. Sub-Part 3.03 Schedule, Water Treatment Plant Effluent title has been revised to include the payment item and now reads Water Treatment Plant Effluent (UC-23)
- i. Sub-Part 3.03 Schedule, the required Turnaround Time for the Willowbrook Pond Post-Excavation Confirmatory Bedrock Samples (UC-24) metals, VOCs, and SVOCs analysis has been changed from 3 day to 24 hours.

- j. Sub-Part 3.03 Schedule, the required Turnaround Time for the Pre- and Post-Temporary Facilities (UC-24) metals, VOCs, SVOCs, and Asbestos analysis has been changed from 3 day to 24 hours.
- k. Sub-Part 3.03 Schedule, the required Turnaround Time for the Waste Characterization (UC-16, UC-18, UC-20, UC-22) TCLP PCBS analysis has been changed from 24 hours to 5 days.
- l. Sub-Part 3.03 Schedule, the required Turnaround Time for the Demolition/Debris Characterization (UC-16, UC-18, UC-20, UC-22) TCLP PCBS analysis has been changed from 24 hours to 5 days.
- m. Sub-Part 3.03 Schedule, the required Turnaround Time for the Imported Material Characterization (UC-14, UC-15, UC-17, UC-19, UC-21) TCLP PCBS analysis has been changed from 24 hours to 3 days.
- n. Sub-Part 3.03 Schedule, Sampling Table has been revised and has been incorporated into the contract documents. (refer to Attachment G)

“Concrete in contact with pond water or subsurface soil materials as determined by the Engineer shall be sampled as described in Section 01425 Sampling. If analytical results determine the material is below the commercial RSCO for the constituents analyzed it may be used as backfill if approved by the Engineer. All concrete shall be delineated from sampling results and in accordance with the New York State Regulations (Title 6, Chapter IV, Parts 376.4 (d), (e), (t)). The Contractor shall verify that the correct contaminant and disposal procedure has been identified and completed. In addition, the Contractor will pay for all costs including but not limited to the identification, sampling, testing, excavation, stockpiling, handling and disposal of hazardous materials. Contractor, for bidding purposes shall assume all concrete be demolished, removed and disposed at an offsite disposal facility.”

- o. Sub-Part 1.01 D has been revised to read:

“The pre-determined excavation limits shown on the Contract Drawings are based on the results of the sampling performed by the Department during the remedial and design investigations. Based on these results, the Engineer estimated the area and depth of excavation for the in-place characterization of excavated soil as hazardous and non-hazardous.”

6. SECTION XI; SPECIFICATION 01580– SURVEY CONTROL:

- a. Sub-Part 1.01 D 9 has been revised to read:

“New monitoring well and dewatering well point locations and elevations (top of cover, top of riser, and top of casing); and”

- b. Sub-Part 1.01 D 10 has been revised to read:

"Existing monitoring well and dewatering well point locations and elevations (top of cover, top of riser, and top of casing)."

- c. Sub-Part 1.01 D 11 has been added to read:

"All confirmatory sample locations including horizontal coordinates and elevations."

7. SECTION XI; SPECIFICATION 02140 – DEWATERING:

- a. Sub-Part 2.02 B has been revised to read:

"System design shall be capable of removing particulates and contaminants and be based on effluent meeting SPDES permit standards (Appendix A, Effluent Limitations and Monitoring Requirements) or pre-treatment standards provided by the City of Dunkirk Department of Public Works (Appendix B, City of Dunkirk Chapter 63 - Sewer User Ordinance)."

- b. Appendix A, Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations has been deleted.

- c. Appendix B, Effluent Limitations and Monitoring Requirements has been revised to Appendix A.

- d. Appendix C, City of Dunkirk Chapter 63 - Sewer User Ordinance has been revised to Appendix B.

- e. Sub-Part 3 B has been revised to read:

"Prior to beginning soil or sediment removal from the Recycle Water Pond (Willowbrook Pond), the contractor shall dewater the pond by pumping the free-standing water in the pond into the sanitary sewer for treatment at the City of Dunkirk POTW. The water level in the pond will be drawn down to approximately one foot above the existing sediments or until the turbidity in the discharge exceeds 50 NTUs. Once the turbidity exceeds 50 NTUs, the discharge will be redirected for treatment at the onsite water treatment facility prior to discharge from the site. While pumping the free-standing water from the pond, the discharge will be monitored for turbidity at two hour intervals. In an effort to minimize turbidity no equipment shall be allowed in the pond during dewatering operations."

8. SECTION XI; SPECIFICATION 02220 – DEMOLITION OF STRUCTURES

- a. Sub-Part 3.01 A, 1 has been revised to read:

“Concrete in contact with pond water or subsurface soil materials as determined by the Engineer shall be sampled as described in Section 01425 Sampling. If analytical results determine the material is below the commercial RSCO for the constituents analyzed it may be used as backfill if approved by the Engineer. All concrete shall be delineated from sampling results and in accordance with the New York State Regulations (Title 6, Chapter IV, Parts 376.4 (d), (e), (f)). The Contractor shall verify that the correct contaminant and disposal procedure has been identified and completed. In addition, the Contractor will pay for all costs including but not limited to the identification, sampling, testing, excavation, stockpiling, handling and disposal of hazardous materials. Contractor, for bidding purposes shall assume all concrete be demolished, removed and disposed at an offsite disposal facility.”

- b. Sub-Part 3.01 A, 5 has been revised to read:

“All non-hazardous concrete where sample results have indicated results above the applicable commercial RSCO shall be broken/crushed/ pulverized to a size acceptable and sent off-site for disposal at an approved industrial landfill or as directed by the Engineer. For concrete to be considered non-hazardous, it must meet the requirements of the New York State Regulations (Title 6, Chapter IV, Parts 376.4(d),(e),(f)).”

- c. Sub-Part 3.03 A, has been revised to read:

“Perform demolition in a systematic manner, beginning at the top of the structure and proceeding downward. Asbestos abatement shall precede all other demolition activities.”

9. SECTION XI; SPECIFICATION 02240 – TRANSPORTATION AND DISPOSAL

- a. Sub-Part 1.06 G, 1 has been deleted:
- b. Sub-Part 1.06 G, 2 has been renumbered to Sub-Part 1.06 G, 1.
- c. Sub-Part 1.06 G, 3 has been renumbered to Sub-Part 1.06 G, 2.

10. SECTION XI; NEW SPECIFICATION 01660 – WINTER SHUTDOWN:

- a. An additional specification has been incorporated into the Contract Documents associated with a Winter Shutdown (refer to Attachment C).

11. SECTION XII; MEASUREMENT FOR PAYMENT:

- a. An additional Bid Item, LS-8 (Winter Shut Down), has been incorporated and reads,

“V. Bid Item LS-8 – Winter Shutdown

- 1. Bid Item LS-8 shall be a lump sum amount for work to be completed in preparation for and during the winter shutdown as specified and directed herein.*
- 2. Submit a separate bid breakdown (see Section III, Article 12, “Bid Breakdown”) for this item that shows individual cost for providing, operating, and maintaining items in the scope of work for this bid item as described below.*
 - i. Site security*
 - ii. Access road maintenance*
 - iii. Fencing maintenance*
 - iv. Field offices maintenance and temporary utilities, as required.*
 - v. Repair all damage associated with the winter shutdown.*
 - vi. Weekly inspections.*
 - vii. Erosion, sedimentation and surface water control maintenance*
- 3. The CONTRACTOR shall provide all materials, equipment, incidentals and labor necessary to perform all applicable work and requirements as described in Attachment C of Addendum No.2.*
- 4. Measurement for payment shall be lump sum up to a maximum of 100% based on actual completion of the bid item. Payments shall be made at the rate of 40% for completing the preparations for winter shutdown, and 60% for remobilization following winter shutdown which includes site maintenance during winter shutdown.”*

- b. An additional Sub-Part, 1.1.A.8 has been incorporated into Bid Item, LS-4 (Pier and Metering Shed Demolition) which reads as follows:

“8. Removal and disposal of existing utility poles and associated wires on north side of Willowbrook Pond.”

- c. Part G - Bid Item LS-7 has been renamed *ALTA/ACSM BOUNDARY SURVEY / CONSTRUCTION SURVEY*

- d. An additional Sub-Part, 1.1.A.2 has been incorporated into Bid Item, LS-7 (ALTA/ACSM Boundary Survey/Construction Survey) which reads as follows:

“2. Provide construction surveying (e.g. pre- and post-construction sample locations, confirmatory sample locations, volume surveys, layout surveys, etc.)”

- e. Part F – Bid Item LS-6; Sub-Part F1.1 10. Remove reference to “10. Effluent sampling”. Effluent sampling shall be paid under Bid item UC-23.

- f. Sub-Part 1.2.B of Bid Item, LS-7 - ALTA/ACSM Boundary Survey/Construction Survey has been revised to read:

"B. Measurement for payment of Bid Item LS-7 shall be paid the bid lump sum price for construction surveying and providing an ALTA/ACSM BOUNDARY SURVEY successfully completed and approved by the DEPARTMENT. Payment shall be lump sum bid for each individual item described above including miscellaneous as submitted in the CONTRACTOR'S bid breakdown."

- g. Part G - Bid Item UC-12 has been renamed **BACKFILL WITH CLEAN IMPORTED MATERIAL**

- h. An additional Sub-Part, 1.1.A.8 has been incorporated into Bid Item, LS-2 (Site Preparation) which reads as follows:

"8. Move/remove existing debris, storage building, trailers, or other obstacles that will interfere with the construction of the laydown area as directed by the Engineer or the Facility."

12. CONTRACT DRAWING C-3 - SITE WORK PLAN

- a. Callout "Remove and Dispose Existing Power Poles" has been added to the north side of Willowbrook Pond

13. CONTRACT DRAWING C-4 - EXCAVATION AND DEWATERING PLAN

The coordinates for the "Approximate Limits of Hazardous Sediment Removal (PCB Concentrations ≥ 50 ppm)" have been added (refer to Attachment H).

This ADDENDUM No. 2, including Attachments A through H, becomes part of the Contract Documents.



Matthew J. Sausville
Matthew Sausville, P.E.

Dated: 05/17/13

ATTACHMENTS TO ADDENDUM NO. 2

***ALTECH SPECIALTY STEEL OU2A SITE
CONTRACT D008535***

- 1. Attachment A Revised Bid Form*
- 2. Attachment B Revised Agreement*
- 3. Attachment C Specification Section 01660 – Winter Shutdown*
- 4. Attachment D Minutes from May 7, 2013 Pre-Bid Meeting*
- 5. Attachment E May 7, 2013 Pre-Bid Meeting Walkover Attendance List*
- 6. Attachment F Pre and Post Bid Meeting Questions and Answers*
- 7. Attachment G Revised Sampling Schedule*
- 8. Attachment H Revised Contract Drawing C-4*

ATTACHMENT A TO
ADDENDUM No. 2 ALTECH SPECIALTY STEEL OU2A SITE
CONTRACT D008535

Revised Bid Form

**** The Bidder must be aware that the Estimated Quantities for some of the payment items have been revised and bid items have been added. The Bidder must use the attached revised bid form when completing and submitting their bid to the Department. Bidders utilizing the original bid form, pages V-1 through V-4, within Section V of the April 2013 Contract Documents will have their bid rejected.**

Addendum No. 2 – Attachment A
Revised Bid Form

ARTICLE 1(A) – Contract Bid Form and Acknowledgment for Construction of

The Altech Specialty Steel Site OU2A, Willowbrook Pond Closure

Contract Number D008535, NYS Site Number: 907022

To the New York State Department of Environmental Conservation

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

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

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

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

Fax Number () _____ - _____

Addendum No. 2 – Attachment A
Revised Bid Form
Bid

New York State Department of Environmental Conservation
ALTECH SPECIALTY STEEL OU-2A, WILLOWBROOK POND CLOSURE IRM
Contract Number: D008535, NYS Site Number: 907022
UNIT PRICE ITEMS

Payment Item Number	Description	Unit	Estimated Quantity	Unit Price		Total Amount
				Words	Figures	
UC-1	Site Services	Day	84			
UC-2	Health and Safety	Day	84			
UC-3	Well Point Installation	Linear Foot	270			
UC-4	Well Point Decommissioning	Linear Foot	270			
UC-5	Monitoring Well Decommissioning	Linear Foot	100			
UC-6	Non-Hazardous Soil Excavation	Cubic Yard	1,100			
UC-7	Hazardous Soil Excavation	Cubic Yard	100			
UC-8	Non-Hazardous Sediment Excavation	Cubic Yard	7,500			
UC-9	Hazardous Sediment Excavation	Cubic Yard	1,500			
UC-10	Non-Hazardous Sediment/Soil Transportation and Disposal	Ton	17,300			
UC-11	Hazardous Sediment/Soil Transportation and Disposal	Ton	2,600			
UC-12	Backfill with Clean Imported Material:	Cubic Yard	47,000			
UC-13	Final Grading, Topsoil, and Seeding	Cubic Yard	1,250			
<div> <div>Total Bid Page V-2:</div> <div>\$</div> <div>(Price in figures)</div> </div>						
Contractor Authorized Representative		Contractor Name		Date		

Addendum No. 1 – Attachment A Revised Bid Form
 New York State Department of Environmental Conservation
ALTECH SPECIALTY STEEL OU-2A, WILLOWBROOK POND CLOSURE IRM
 Contract Number: D008535, NYS Site Number: 907022
UNIT PRICE ITEMS

Payment Item Number	Description	Unit	Estimated Quantity	Unit Price		Total Amount (\$)
				Words	Figures	
UC-14	Backfill Soil Sampling/Analysis (PCB) EPA Method 8082, 3 day TAT	Each	125			
UC-15	Backfill Soil Sampling/Analysis (SVOC) EPA Method 8270, 3 day TAT	Each	117			
UC-16	Sediment /Soil Sampling/TCLP Analysis (SVOC) EPA Method 8270, 5 day TAT	Each	25			
UC-17	Backfill Soil Sampling/Analysis (VOC) EPA Method 8260, 3 day TAT	Each	171			
UC-18	Sediment /Soil Sampling/TCLP Analysis (VOC) EPA Method 8260, 5 day TAT	Each	25			
UC-19	Backfill Soil Sampling/Analysis (Metals) EPA Methods 6010/7471, 3 day TAT	Each	51			
UC-20	Sediment /Soil Sampling/TCLP Analysis (Metals) EPA Methods 6010/7470, 5 day TAT	Each	25			
UC-21	Backfill Soil Sampling/Analysis (Pesticides) EPA Method 8081, 3 day TAT	Each	51			
UC-22	Sediment /Soil Sampling/TCLP Analysis (Pesticides) EPA Method 8081, 5 day TAT	Each	25			
UC-23	Onsite Water Treatment Plant Effluent Sampling Analysis (VOCs, SVOCs, Metals, PCBs) EPA Methods 8260, 8270, 6010/7470, 8082, 1 day TAT	Each	50			
UC-24	Soil Excavation Confirmatory Sample (VOCs, SVOCs, Metals, PCBs) EPA Methods 8260, 8270, 6010/7470, 8082, 1 day TAT	Each	142			
Total Bid Page V-3A: \$ (Price in figures)						
Contractor Authorized Representative		Contractor Name		Date		

Addendum No. 2 – Attachment A
Revised Bid Form

New York State Department of Environmental Conservation
ALTECH SPECIALTY STEEL OU-2A, WILLOWBROOK POND CLOSURE IRM
Contract Number: D008535, NYS Site Number: 907022
LUMP SUM ITEMS

Payment Item Number	Description	Unit	Estimated Quantity	Unit Price		Total Amount (\$)
				Words	Figures	
LS-1	Mobilization/Demobilization (limit to 5% of total bid)	Lump Sum	1			
LS-2	Site Preparation	Lump Sum	1			
LS-3	Erosion and Sediment Control	Lump Sum	1			
LS-4	Pier and Metering Shed Demolition/Disposal	Lump Sum	1			
LS-5	Capping and Plugging of Inlet/Outlet Piping	Lump Sum	1			
LS-6	Dewatering	Lump Sum	1			
LS-7	ALTA/ACSM Boundary/Construction Survey	Lump Sum	1			
LS-8	Winter Shutdown	Lump Sum	1			
<div> <div>Total Bid Page V-3B: \$</div> <div>(Price in Figures)</div> </div>						
<div> <div>Total Bid Page V-3A: \$</div> <div></div> </div>						
<div> <div>Total Bid Page V-2: \$</div> <div></div> </div>						
<div> <div>Grand Total Bid: \$</div> <div>(Price in Figures)</div> </div>						
Contractor Authorized Representative		Contractor Name		Date		

ATTACHMENT B TO
ADDENDUM No. 2 ALTECH SPECIALTY STEEL OU2A SITE
CONTRACT D008535

Agreement

ADDENDUM NO.2 - ATTACHMENT B

SECTION VI

Agreement

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

_____ a corporation organized and existing under the laws of the State of _____

_____ a partnership, consisting of

_____ an individual conducting business as

the location of whose principal office is _____ hereinafter called "Contractor."

WITNESSETH

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

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

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

ARTICLE 1 - Defined Terms

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

ARTICLE 2 - Work

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

New York State Department of Environmental Conservation
Site Name: Altech Specialty Steel OU2A Willowbrook Pond
Contract Number: D008535
Date: April 2013

ADDENDUM NO.2 - ATTACHMENT B

ARTICLE 3 - Engineer

Shaw Environmental, Inc. shall assume all duties and responsibilities of and have the rights and authority assigned to Engineer in the Contract Documents in connection with completion of the Work in accordance with the Contract Documents.

ARTICLE 4 - Contract Documents

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

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

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

ARTICLE 5 - Contractor's Representations

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

- 5.1 Contractor has familiarized itself with the nature and extent of the Contract Documents, Work, site, locality, and all local conditions and applicable Laws that in any manner may affect cost, schedule, progress, performance or furnishing of the Work.
- 5.2 Contractor has studied carefully all reports of explorations and tests of subsurface conditions and drawings of physical conditions which are identified in Information to Bidders, as provided in the General Conditions, and accepts the determination set forth in said Section to the extent of the technical data contained in such reports and drawings upon which Contractor is entitled to reply.

ADDENDUM NO.2 - ATTACHMENT B

- 5.3 Contractor has obtained and carefully studied all such examinations, investigations, explorations, tests, reports and studies which pertain to the subsurface or physical conditions at or contiguous to the site or otherwise may affect the cost, schedule, progress, performance or furnishing of the Work as Contractor considers necessary for the performance or furnishing of the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents, including specifically the provisions of Article 3 of the General Conditions; and no additional examinations, investigations, explorations, tests, reports, studies or similar information or data are or will be required by Contractor for such purposes.
- 5.4 Contractor has reviewed and checked all information and data shown or indicated on the Contract Documents with respect to existing Underground Facilities. No additional examinations, investigations, explorations, tests, reports, studies or similar information or data in respect of said Underground Facilities are or will be required by Contractor in order to perform and furnish the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents, including specifically the provisions of Article 3 of the General Conditions.
- 5.5 Contractor has correlated (or assumes responsibility for correlating) the results of all such observations, examinations, investigations, explorations, tests, reports and studies with the terms and conditions of the Contract Documents.
- 5.6 Contractor has given Engineer written notice of all conflicts, errors or discrepancies that he (she) has discovered in the Contract Documents and any written resolution thereof is acceptable to Contractor.
- 5.7 General Responsibility: The Contractor shall at all times during the Contract term remain responsible. The Contractor agrees, if requested by the Commissioner or his or her designee, to present evidence of its continuing legal authority to do business in New York State, integrity, experience, ability, prior performance, and organizational and financial capacity. Additional responsibilities required of the Contractor in order to perform and furnish the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents, are specified within the provisions of Article 5 of the General Conditions.

ARTICLE 6 - Contract Term

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

- 6.1 The Work will be Substantially Completed within three hundred (300) calendar days from the Effective Date of the Agreement plus twenty (20) calendar days.
- 6.2 Separable parts of the Work, if specified in an Attachment A to this Agreement, will be Substantially Completed within the number of days stated in Attachment A from the Effective Date of the Agreement plus twenty (20) calendar days.

ADDENDUM NO.2 - ATTACHMENT B

- 6.3 The Work will be completed and ready for final payment in accordance with the General Conditions within three hundred sixty (360) calendar days from the Effective Date of the Agreement plus twenty (20) calendar days or within 60 days of substantial completion, whichever is sooner.
- 6.4 Department and Contractor recognize that the Contract Time(s) specified in paragraphs 6.1, 6.2, and 6.3 above are of the essence of this Agreement, and that Department may suffer financial loss if the Work is not completed within the Contract Time(s) specified above, plus any extensions thereof allowed in accordance with the General Conditions, as amended or supplemented in the Supplementary Conditions.
- 6.5 Accordingly, Contractor agrees to forfeit and pay Department as liquidated damages, and not as a penalty, the amount of one thousand six hundred forty two dollars (\$1,642) for each day that expires after the Contract Time specified in paragraph 6.1 above for Substantial Completion until the Work is Substantially Complete. Contractor further agrees to pay Department as liquidated damages, and not as a penalty, each of the amounts set forth in Attachment A if applicable to this agreement for each day that expires after each of the contract times specified in paragraph 6.2 above for substantial completion until the each of the separable parts of the work is substantially complete. After substantial completion of the work, if Contractor shall neglect, refuse or fail to complete the remaining work within the contract time or any proper extension thereof granted by Department, Contractor shall pay Department as liquidated damages, and not as a penalty, the amount of one thousand five hundred forty dollars (\$1,540) for each day that expires after the Contract Time specified in paragraph 6.3 above for completion and readiness for payment. These liquidated damages are additive and represent a reasonable estimate, in lieu of any such proof, of Department's extra expenses for Inspection, engineering services, administrative costs, and Interim excess operating costs for each day that expires after the associated Contract Time.
- 6.6 In addition to the liquidated damage amounts set forth in paragraph 6.5 above, Contractor agrees to pay Department's additional actual damages arising out of the types of expenses itemized below for each day that expires after each of the Contract Times specified in paragraph 6.1 above for Completion of each of the designated parts of the Work until each of the designated parts of the Work achieves the specified completion. These actual damages are additive and shall equal Department's expenditures for costs other than those itemized in paragraph 6.5, including, but not limited to, delay damage settlements or awards related to other separate contracts, delay penalties or fines imposed by regulatory agencies, contract damage and loss of use, excess financing costs, and professional fees and related expenses incurred thereto.

ARTICLE 7 - Alterations and Omissions

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

ARTICLE 8 - Determinations as to Variances

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

ADDENDUM NO.2 - ATTACHMENT B

ARTICLE 9 - Payment Procedures

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

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

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

- 9.1.1 Prior to Substantial Completion of the Work, progress payments will be made less five percent (5%) the aggregate of payments (i.e. retainage) previously made and less an amount necessary to satisfy any claims, liens, or judgments against Contractor which have not been suitably discharged.
- 9.2 **Payment upon substantial completion.** When the work or major portions thereof, as contemplated in the Contract Documents, is substantially completed, Contractor shall submit to Department, an Application for Payment in accordance with the General Conditions for the remaining amount of the contract balance or amount due for that major portion completed. Department will pay the remaining Contract balance, or amount due for that major portion completed, less two times the value of any remaining items to be completed and an amount necessary to satisfy any claims, liens, judgments against Contractor which have not been suitably discharged. Payment for remaining items will be made upon their completion.
- 9.3 **Final Payment.** Upon final completion of the physical Work and acceptance of the Work in accordance with the General Conditions, Department shall pay the remainder of the Contract Price as recommended by Engineer.

ADDENDUM NO.2 - ATTACHMENT B

ARTICLE 10 - No Estimate on Contractor's Noncompliance

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

ARTICLE 11 - Delays, Inefficiencies, and Interference

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

- 1) Contractor further agrees that it has included in its bid prices for the various items of the contract any additional costs for delays, inefficiencies, or interferences affecting the performance or scheduling of contract work caused by, or attributable to, the following instances:
 - a) The work or the presence on the Site of any third party, including but not limited to that of other contractors or personnel employed by the State, or by other public bodies, by railroad, transportation or utility companies or corporations, or by private enterprises, or any delay in progressing such work by any third party.
 - b) The existence of any facility or appurtenance owned, operated, or maintained by any third party.
 - c) The act, or failure to act, of any other public or governmental body, including, but not limited to, approvals, permits, restrictions, regulations or ordinances.
 - d) Restraining orders, injunctions, or judgments issued by a court.
 - e) Any labor boycott, strike, picketing or similar situation.
 - f) Any shortages of supplies or materials required by the contract work.
 - g) Any situation which was, or should have been within, the contemplation of the parties at the time of entering into the contract.

ARTICLE 12 - Postponement, Suspension or Termination

- 12.1 Department shall have the right to postpone, suspend or terminate this Contract in whole or in part for the convenience of Department. If, after termination for cause of Contractor it is determined that no cause existed for termination of Contractor, such termination shall be deemed to have been made for the convenience of Department.
- 12.2 If this Contract is terminated by Department for convenience or cause, Department shall make payment on an equitable basis for all work performed in accordance with the Contract Documents prior to termination in accordance with paragraphs 12.3 and 12.4 below.

ADDENDUM NO.2 - ATTACHMENT B

- 12.3 If this contract is terminated for cause, no payment shall be made for anticipated profit on unperformed work or services. Additionally, Department may adjust any payment due to Contractor at the time of termination to account for any additional costs to Department because of Contractor's default.
- 12.4 If this contract is terminated for convenience, payment shall be made for any services rendered and expenses incurred prior to the termination, in addition to termination settlement costs reasonably incurred by Contractor which had become firm prior to the termination.
- 12.5 Upon termination of this Contract under this Agreement, Department may take over the work or may award or negotiate a contract with another party to complete work required by these Contract Documents.
- 12.6 Termination for Non-Responsibility: Upon written notice to the Contractor, and a reasonable opportunity to be heard with appropriate Department officials or staff, the Contract may be terminated by the Commissioner or his or her designee at the Contractor's expense where the Contractor is determined by the Commissioner or his or her designee to be non-responsible. In such event, the Commissioner or his or her designee may complete the contractual requirements in any manner he or she may deem advisable and pursue available legal or equitable remedies for breach.
- 12.7 Suspension of Work (for Non-Responsibility): The Commissioner or his or her designee, in his or her sole discretion, reserves the right to suspend any or all activities under this Contract, at any time, when he or she discovers information that calls into question the responsibility of the Contractor. In the event of such suspension, the Contractor will be given written notice outlining the particulars of such suspension. Upon issuance of such notice, the Contractor must comply with the terms of the suspension order. Contract activity may resume at such time as the Commissioner or his or her designee issues a written notice authorizing a resumption of performance under the Contract.

ARTICLE 13 - Completion of Physical Work and Final Acceptance

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

Mr. Gerard W. Burke, Section Chief
NYSDEC - Division of Environmental Remediation
Section A, Remedial Bureau E
625 Broadway, 12th Floor
Albany, New York 12233-7017

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

ADDENDUM NO.2 - ATTACHMENT B

If Department accepts Contractor's date of completion of physical Work, Department's final acceptance of work shall be as of that date.

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

ARTICLE 14 - Final Payment

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

ARTICLE 15 - Disposition of Documents and Data

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

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

ARTICLE 16 - Applicable Law; Jurisdiction; Service of Legal Process

Contractor agrees:

- 16.1 That this Agreement is subject to and governed by all applicable federal and New York State law.
- 16.2 To procure all necessary licenses and permits.
- 16.3 To voluntarily and irrevocably submit to the jurisdiction of a New York State Court of competent jurisdiction, to resolve any dispute or controversy arising out of this Contract.
- 16.4 That the venue of any action at law or in equity commenced against Department arising out of a Project in one of Department's regions, shall be in the county in that Region where Department regional headquarters is located.
- 16.5 That the service of legal process or any notices in connection with a dispute or controversy arising out of this Contract, by United States registered mail, postage prepaid, addressed to the Designated representative of Department at the address stated in the Contract. Documents shall constitute good and valid service of process upon Engineer.

ADDENDUM NO.2 - ATTACHMENT B

- 16.6 To waive any defense based on or alleging lack of jurisdiction, improper venue, or invalid service, if there is compliance with paragraphs 16.3 and 16.4 in this Article.
- 16.7 This Contract may be presented in court as conclusive evidence of the foregoing agreement.

ARTICLE 17 - Sales and Use Tax Exemption

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

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

ARTICLE 18 - Effective Date

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

ARTICLE 19 – Vendor Responsibility

The Department recommends that vendors file a required Vendor Responsibility Questionnaire online via the New York State VendRep System. To enroll in and use the New York State VendRep System, see the VendRep System Instructions available at http://www.osc.state.ny.us/vendrep/vendor_index.htm or go directly to the VendRep System online at <https://portal.osc.state.ny.us>.

Vendors must provide their New York State Identification Number when enrolling. To request assignment of a Vendor ID or for VendRep System assistance, contact the Office of the State Comptroller's Help Desk at 866-370-4672 or 518-408-4672 or by email at ciohelpdesk@osc.state.ny.us. Vendors opting to complete and submit a paper questionnaire can obtain the appropriate questionnaire from the VendRep website www.osc.state.ny.us/vendrep or may contact the Department of the Office of the State Comptroller's Help Desk for a copy of the paper form.

ARTICLE 20 - Contract Price

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

Bid \$ _____

Plus change order(s)

ADDENDUM NO.2 - ATTACHMENT B

CONTRACT NUMBER: D008535

IN WITNESS WHEREOF, representatives of the Department and the Contractor have executed this Contract on the day and year written beneath their respective signatures. The signatory for the Department provides the following Agency Certification: "In addition to the acceptance of this contract, I also certify that original copies of this signature page will be attached to all other exact copies of this contract."

FOR DEPARTMENT

By: _____

Title: _____

Date: _____

FOR CONTRACTOR

By: _____

Title: _____

Date: _____

Approved as to Form:

By: _____
For Attorney General

Date: _____

Approved:

Thomas P. DiNapoli
State Comptroller

By: _____

Date: _____

This contract is not effective until it is approved by the State Comptroller and filed in his office (Section 112, State Finance Law).

ADDENDUM NO.2 - ATTACHMENT B

CONTRACT NUMBER: D008535

(CORPORATE ACKNOWLEDGMENT WITH SEAL)

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

On the ____ day of _____, 20 ____, before me personally came _____ to me known, who being duly sworn, did depose and say that (s)he resides in _____, New York; that (s)he is _____ (title) of _____ (firm) the corporation described in and which executed the above instrument; that (s)he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation and that (s)he signed his(her) name thereto by like order.

Seal

Notary Public

(CORPORATE ACKNOWLEDGMENT WITHOUT SEAL)

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

On the ____ day of _____, 20 ____, before me personally came _____ to me known, who being duly sworn, did depose and say that (s)he resides in _____, New York; that (s)he is an officer of _____ (firm); namely, the _____ (title) of _____ (firm); that (s)he is authorized by the governing body of said corporation to sign contracts; and that (s)he did sign the foregoing instrument on behalf of, and with authority to bind said corporation.

Notary Public

(CO-PARTNERSHIP ACKNOWLEDGMENT)

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

On the ____ day of _____, 20 ____, before me personally came _____ to me known and known to me to be a member of _____, the firm described in and which executed the foregoing instrument, and (s)he acknowledged to me that (s)he subscribed the name of said firm thereto on behalf of said firm for the purpose therein mentioned.

Seal

Notary Public

(INDIVIDUAL ACKNOWLEDGMENT)

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

On the ____ day of _____, 20 ____, before me personally came _____ to me personally known, and known to me to be the individual described in, and who executed the foregoing instrument, and (s)he duly acknowledged to me that (s)he executed the same.

Seal

Notary Public

ATTACHMENT C TO
ADDENDUM No. 2 ALTECH SPECIALTY STEEL OU2A SITE
CONTRACT D008535

Specification Section 01660 – Winter Shutdown

ADDENDUM NO.2 – ATTACHMENT C

SECTION 01660 WINTER SHUTDOWN

PART 1 — GENERAL

1.1 SCOPE OF WORK

- A. The Contractor shall furnish all labor, materials, equipment and incidentals necessary to prepare and maintain the site during a winter shutdown from **November 15, 2013 until April 15, 2014**. The winter shutdown shall not be construed as the basis for an extension in contract time.
- B. The Department reserves the right to adjust the start date and end date of the Winter Shutdown as site conditions may require. The Department shall provide written notice to the Contractor of a date adjustment no less than seven calendar days before the revised date. No written notification will be required for the specified dates to be effective.
- C. The Contractor may request, in writing, that the start date be delayed or the end date be advanced provided that the site conditions will allow effective work to be prosecuted. The Contractor shall provide seven days written notice to the Engineer and Department to delay the start date or fourteen days written notice to advance the end date of the Winter Shutdown.
- D. The Contractor shall comply with all applicable specification sections in preparing the site for winter shutdown and securing the integrity of the constructed work.
- E. All damages associated with the winter shutdown, in accordance with these specifications, shall be repaired at no additional cost to the Department.
- F. The Contractor shall perform a comprehensive site inspection in the presence of the Engineer and Department prior to the initiation of the winter shutdown to confirm that stabilization activities have been completed. The Contractor shall notify the Department in writing that the Winter Shutdown Plan stabilization activities have been met and are in place.
- G. The Contractor shall be required to perform site security during winter shutdown in accordance with Section 01500 — Temporary Facilities and Controls and Addendum No.1.
- H. The Contractor shall be required to maintain necessary temporary facilities in accordance with Section 01500 — Temporary Facilities and Controls. At a minimum the Contractor shall maintain a site trailer and telephone service. Electrical power and lighting shall be provided, as required, to facilitate site inspections and perform any required work during winter shutdown.
- I. Payments for Bid Item UC-1 (Site Services) and UC-2 (Health and Safety) shall be suspended during the period of the Winter Shutdown.

1.2 QUALITY ASSURANCE

- A. The Contractor shall retain the services of a qualified professional to perform site inspections during winter shutdown in accordance with the New York State Standards and Specifications for Erosion and Sediment Control.
- B. Reference Standards: Comply with applicable provisions and recommendations of the following except where otherwise shown or specified.

1. SPDES — State Pollutant Discharge Elimination System General Permit for Storm Water Discharges from Construction Activities (Permit Number GP-02-01)
2. Latest edition of New York State Standards and Specification for Erosion and Sediment Control, August 2005.

1.3 SUBMITTALS

- A. The Contractor shall submit a Winter Shutdown Plan, as part of the Plan Of Operation (Work Plan) as specified in Section III — Bidding Information and Requirements, Article 5 — Required Bid Submittals, Paragraph b) that shall include:
 1. Description of remaining manpower, temporary facilities including utilities and equipment to be left on-site during the winter shutdown.
 2. Procedures for performance of site inspections.
 3. Schedule for inspections to be performed during winter shutdown.
- B. The Contractor shall submit a Winter Erosion and Sediment Control Plan that shall include:
 1. All calculations and assumptions used for the sizing and siting of proposed temporary erosion and sedimentation control facilities during winter shutdown;
 2. Information regarding maintenance needs and safety considerations of storm water management facilities and conveyance systems during winter shutdown;
 3. Description of the coordination of staging of erosion and sedimentation control facilities during winter shutdown;
 4. Description of temporary structural and vegetative measures that will be used to control erosion and sedimentation for the winter shutdown;
 5. Provide a drawing showing the location of erosion and sediment control measures for the winter shutdown;
 6. Provide dimensional details of proposed sediment control facilities as well as calculations used in the siting and sizing of sediment controls during winter shutdown;
 7. Provide implementation schedule for staging temporary and permanent erosion and sediment control facilities during winter shutdown;
 8. Provide a maintenance schedule for soil erosion and sediment control facilities and describe maintenance activities to be performed during winter shutdown.

PART 2 — PRODUCTS — (NOT USED)

PART 3 — EXECUTION

- A. The Contractor shall have a qualified professional conduct a site inspection at least every 7 calendar days and within 24 hours of the end of a storm event of 0.5 inches of rainfall or equivalent snowfall amount or greater, unless otherwise approved by the Department.
- B. All erosion and sediment controls must be installed and maintained according to the NYS Standards and Specifications for Erosion and Sediment Control. The Contractor shall implement the following:
 - 1. Site Stabilization - All bare/exposed soils shall be stabilized by an established vegetation, straw or mulch, matting, rock or other approved product such as rolled erosion control product. Seeding of areas along with mulching is encouraged, however seeding alone is not considered acceptable for proper stabilization. Seeding of areas must be performed during recommended planting seasons to allow for germination and growth prior to December 15.
 - 2. Sediment Barriers - Barriers shall be properly installed at all necessary perimeter and sensitive locations.
 - 3. Slopes - All slopes and grades shall be properly stabilized with approved methods. Rolled erosion control products must be used on all slopes greater than 3H:1V, in all drainage ways not stabilized with rock, and in all locations where conditions for erosion dictate such measures.
 - 4. Soil Stockpiles - Stockpiled soils shall be protected by the use of established vegetation, an anchored-down straw or mulch, rolled erosion control product, or other durable covering. A barrier shall be installed around the pile to prevent sedimentation beyond the stockpile location.
 - 5. Construction Entrance - All entrance/exit locations to the site shall be properly stabilized and must be maintained to accommodate snow management as set forth in the NYS Standards and Specifications for Erosion and Sediment Control.
 - 6. Snow Management - Snow management shall not destroy or degrade erosion and sediment control practices.
- C. The Contractor shall check for damage during inspections and repair as necessary. This is especially important during thaws and prior to spring rain events.
- D. All stockpiled materials including geosynthetics (geotextile) shall be suitably protected in accordance with manufacturer's recommendations in order to maintain the integrity of the materials during winter shutdown.
- E. All exposed waste surfaces shall be covered with 6 inches of compacted Select Borrow. No exposed waste surfaces will be permitted during the winter shutdown.
- F. All excavations shall be suitably protected in accordance with OSHA requirements.

END OF SECTION

ATTACHMENT D TO
ADDENDUM No. 2 ALTECH SPECIALTY STEEL OU2A SITE
CONTRACT D008535

Minutes from May 7, 2013 Pre-Bid Meeting

Addendum No. 2 - Attachment D

**MINUTES OF THE PRE-BID CONFERENCE
HELD ON THURSDAY, MAY 7, 2013 FOR
REMEDIAL CONSTRUCTION AT THE
ALTECH SPECIALTY STEEL OU2A SITE
CONTRACT NO. D008535**

- A. The agenda for the mandatory Thursday, May 7th, 2013 pre-bid meeting was as follows:

Introductions
General Site Information
Overview of Contract Requirements/Technical Specifications
Questions & Answers
Site Walkover with Engineer

- B. Weather: Sunny with light winds. Highs in the mid to high 70s degrees (Fahrenheit).
- C. The CONTRACTORS were requested to sign in. Bid envelopes were distributed to contractors requesting them. The CONTRACTORS were given a formal presentation of the project by the Department and the Engineer and then allowed to tour the site and off-site areas with the Engineer. Following the site tour, the attendees were free to leave.
- D. Attendees of this pre-bid conference were as below and documented within the attached sign-in sheet for bidders in attendance (Attachment E).

1. New York State Department of Environmental Conservation (Department)
contacts:

David Chiusano, Project Manager and Designated Contact – Remedial Construction;
Tel: (518) 402-9814, Fax: (518) 402-0819
Email: djchiusa@gw.dec.state.ny.us

Maurice Moore, Regional Department Representative
Tel: (716) 851-7220
Email: mfmoores@gw.dec.state.ny.us

Kevin Glaser, Regional Construction Inspector
Tel: (716) 851-7220
Email: knglaser@gw.dec.state.ny.us

2. Remedial Design/Project Engineer: Shaw Environmental, Inc. (Shaw)
representative/contact:

Matt Sausville, P.E. Design Engineer
Tel: (518) 785-2355
Email: matt.sausville@CBI.com

Mike Donegan, L.S.
Tel: (315) 657-6810
Email: michael.donegan@CBI.com

E. During the pre-bid meeting at the site it was explained by the Department that:

1. Department has gone to a paperless/electronic bid procurement process for this project. There are no cost for electronic copies of the contract documents. Hard copies of the specification book and ½ size drawings are available upon request to the Department at no charge.
2. Sealed bids for the Altech Specialty Steel OU2A Site ("project"), will be received by the New York State Department of Environmental Conservation, Division of Management and Budget Services, 10th Floor, 625 Broadway, Albany, New York, 12233-5027, Attn: Bureau of Expenditures until the time of 1:00 P.M. EST and on the date of Thursday, May 23, 2013. The bids will be publicly opened and read aloud at the above time and date. Telegraphic or other electronically transferred bids are not acceptable.
3. Pond holds 5.4 million gallons of water, 1.89 acre surface water impoundment, approximately 225 feet by 320 feet by 10.5 feet deep. Sediment thickness up to 2-3 feet in some areas. Site bordered by Special Metals Corporation to the East and Dunkirk Specialty Steel to the North.
4. General summary of contamination (Summary of data from RI and RD Investigations included within Limited Site Data Document (LSDD) electronically provided on FTP site along with the Contract Documents): The link for the LSDD and Biddable Altech Contract Documents on the Department FTP site is: <ftp://ftp.dec.state.ny.us/der/altechou2/>
 - a. The main categories of contaminants which exceed their PCBs, VOCs, and SVOCs. The primary contaminants of concern are PCBs.
 - b. LSDD includes subsurface information, figures, tables, photos, well construction logs, etc.

5. April 2013 Contract Documents were prepared by the Department and Shaw. Shaw was contracted to assist in completing the remedial design as project engineer, and is assuming responsibilities of Engineer to perform construction management and daily oversight duties during remediation.

F. Contract Documents are only available in electronic format at no charge. Access to electronic copies of biddable Contract Document drawings, specifications, proposal forms, addenda, and a separate Limited Site Data Document may be downloaded from the Department web site links <http://www.dec.ny.gov/chemical/59233.html> and <ftp://ftp.dec.state.ny.us/der/altechou2/>. Hard copies of the Contract Documents are only available upon request from the Division of Environmental Remediation, 12th Floor, 625 Broadway, Albany, New York, 12233-7012, Attn: David Chiusano, Project Manager at (518) 402-9814.

Proposals will be accepted only from bidders who attend the Pre-Bid Conference and sign in on the Attendance Sheet(s) provided by the Department. All proposals must be made on the official proposal form and enclosed in the bid envelope which will be handed out following the pre-bid meeting and sent out by the Department to the Pre-Bid Attendees that requested the envelope. Each proposal must be accompanied by a deposit or a bid bond in the amount of 5% of bid amount.

All Bidders must attend this Pre-Bid Conference to discuss special requirements for the contract, held on **Tuesday, May 7, 2013 at the Site starting at 11:00 A.M. prevailing local time.** ATTENDANCE IS MANDATORY AS A CONDITION OF BIDDING.

Contract documents include technical specifications and drawings.

Bidders may receive announcements of future procurement opportunities by signing up for the Department -DER's electronic mailing list ("GovDelivery") at: <https://public.govdelivery.com/accounts/NYSDEC/subscriber/new>. Refer to advertisement page in contract, Section I for web address.

- G. Questions relating to the M/WBE requirements of the contract were directed to call Michelle June, DEPARTMENT – MWBE Unit, at (518) 402-9311. (minimum requirements discussed under Item V below).
- H. Potential bidders should direct their technical questions to David Chiusano in writing by e-mail at djchiusa@gw.dec.state.ny.us.
- I. Three (3) years experience in the construction of the items bid is required of the CONTRACTOR.
- J. Pre-bid meeting attendance is mandatory to bid on the project as a prime CONTRACTOR.

K. ADDENDUM No. 1 was released at same time as contract documents and includes changes made to the administrative sections of the contract (Sections 1-8). Significant changes generally include:

1. Specifications/requirements for “joint ventures” involving bidding, experience, and financial statements
2. Insurance coverage modifications (PLI – limits not less than \$5,000,000)
3. 40 Hour OSHA training requirements/clarifications
4. Inclusion of Iran Divestment Act language
5. Contractor required to obtain and submit copy of policy endorsements that name Department and State of New York as additional insured (workers compensation and disability notable exceptions).
6. Bid protest guidelines

Currently, ADDENDUM No. 2 will include meeting minutes, pre-bid meeting attendance list, significant questions raised and answers, and any significant changes to the Contract Documents.

L. Bid opening for this contract is listed in the Contract Documents as **Thursday, May 23, 2013, at 1:00 p.m. Eastern Daylight Time**, 10th Floor, DEPARTMENT - Albany. Potential bidders are welcome to attend bid opening in person. Contact DEPARTMENT - Bureau of Expenditures for exact room location. Those bidders wishing to attend or hand deliver their bid were requested to contact David Chiusano a day or two ahead of time so that they could be properly signed into the building for security purposes. Otherwise, they may not be allowed in building to deliver their bid on schedule.

M. Further information about the site can be found at the following locations (by appointment only):

1. DEPARTMENT, Albany: David Chiusano, (518) 402-9814.

N. Prevailing Wage Rates (Section XIII of contract documents)

- a. The Department requires, for the work under this contract, that the CONTRACTOR and it's subcontractor's pay at least the prevailing wage rate and pay or provide the prevailing supplements, including premium rates for overtime pay, as issued by the State Labor Department. The current wage rates are included as Section XIII within the contract documents. CONTRACTOR that willfully fails to file payroll records to the Department shall be guilty of a class E felony and subject to civil penalty of up to \$1,000/day.

- b. CONTRACTOR is responsible to update wage rate schedule during duration of contract. The CONTRACTOR is also required to submit certified payrolls and subcontractor certified payrolls within 30 days after issuance of its first payroll and every thirty days thereafter for review and acceptance by the Engineer. Payrolls must be maintained for at least three (3) years from the projects date of completion. Filing of payrolls to the Department is a condition of payment.

O. Major items of this Contract for remedial work generally include, but are not limited to:

- a. Remedial activities at the Altech Specialty Steel OU2A Site includes, but are not necessarily limited to:
 - 1. Removal of the perimeter slag berm surrounding pond,
 - 2. Excavation and handling/off-site disposal of PCB impacted materials (Transportation and Disposal of Sediments/Soil: 2,600 Tons Hazardous – above 50 PPM and 17,300 Tons Non-Hazardous). Excavation within the pond shall extend to bedrock, Means and methods of sediment dredging not specified.
 - 3. Excavation/grading of site materials,
 - 4. Installation and use of a groundwater dewatering and treatment system (discharge to City of Dunkirk POTW or onsite (discharge criteria for both included in contract),
 - 5. dewatering of Willowbrook Pond, pressure wash bedrock following sediment removal per Engineer's direction,
 - 6. Removing certain structures/building (small amount of asbestos abatement in water meter building) associated with Willowbrook Pond (steel pier and concrete column foundation, concrete outlet structures in pond (7 shown on drawings), water meter building and concrete foundation,
 - 7. Cutting and capping of existing pipes inlet or outlets to pond, any structure determined to interfere with construction activities or as determined by engineer),
 - 8. Backfilling of pond (47,000 CY),
 - 9. Construction of a final surface soil cover system, grading and drainage (primarily clean imported material (depth varies) followed by a minimum of 2 feet select granular material, 4 inches topsoil, and seed).

The estimated range for this work is: \$2,500,000 to \$5,000,000.

1. Remedial construction also includes:

- a. Removal of trees, trunks, stumps, and all vegetation along berm to water surface.
- b. Installation of temporary access road around east and south ends of pond.
- c. Installation of 10 well points (for dewatering) and 3 monitoring wells (20-24 feet in depth).

- d. Waste characterization, documentation samples, confirmatory samples, and samples of imported borrow source soil required (Section 001425).
- e. Survey required for payment purposes and a separate survey required for later placement of an Environmental Easement (ALTA Survey). The latest requirements for ALTA Survey can be found on the Department's web site at:
<http://www.dec.ny.gov/chemical/48242.html>
- f. soil/sediment staging areas to be constructed north of pond
- g. Installation of double swing entrance gate (southwest corner of site)
- h. construction and use of 2 decontamination pads (account for TSCA materials)

- 2. CONTRACTORS are required to refer to contract documents for a complete list of work items specified under this contract.

P. Bid Instructions:

- 1. Bid instructions are summarized in Section III of the Contract Documents.
- 2. For the bid submission, each bidder needs to submit the following:
 - a. Completed bid form.
 - b. Bid bond, bank check, or certified check equal to 5 percent of the bid amount.
 - c. Signed Bidder/Proposer's Certification (Pages V-6 and V-7). Includes:

Signed Non-Collusion Certificate, signed MacBride Fair Employment Principles Certificate, signed State Ethics Law Provision, signed Permissible Contacts During a Procurement and Prohibition of Inappropriate Lobbying Influence, signed Iran Divestment Act form, and signed Use of Best Available Retrofit Technology (BART) and Ultra Low Sulphur Diesel (ULSD) Provision.
 - d. Signed Offerer Disclosure of Prior Non-Responsibility Determinations.
- 3. Bids must be submitted using the appropriate envelope which will be mailed out to the pre-bid meeting attendees upon request. Completed bids must be sent to:

NYS Department of Environmental Conservation
Attention: Bureau of Expenditures
Division of Management and Budget
Contract Procurement Unit
625 Broadway, 10th Floor
Albany, New York 12233-5027

Do not send bids to the attention of David Chiusano, Project Manager/Designated Contact.

DEPARTMENT is not responsible for late delivery of overnight express delivery services. If received after 1:00 P.M. EST on the bid date of Tuesday, April 19, 2011 they will be returned to bidder unopened.

DEPARTMENT is not responsible for late delivery caused from bidder using incorrect bid envelope.

Q. Notice of Apparent Low Bidder:

Within a few days after the bid opening, the DEPARTMENT will notify the apparent low bidder by certified letter, and request that the low bidder submit the following items to the Department within five (5) calendar days:

1. Disposal facilities.
2. Statement of experience.
3. Insurances- **(Insurance(s) MUST BE provided by NYS LICENSED insurance companies (admitted not accepted).** The Engineer, property owner, and an adjacent property owner must be named as additional insured on the policies provided. Be aware of workers compensation form requirements identified within Section VIII of the Contract.
4. Corporate Resolution and Certification.
5. New York State Vendor Responsibility Questionnaire (NYSVRQ). A separate NYSVRQ or an Affidavit of No Change (if worked on a state contract within the last year) is also required for all subcontracts over \$10,000. **Electronic filing is encouraged.**
6. Statement of Surety's Intent.
7. M/WBE-EEO Program Work Plans (in electronic format).
8. *Technical Project plans (Work Plan, HASP, Sampling Plan, QA/QC Plan, Surface Water Management Plan, etc.).
9. Pollution Liability Insurance policy.
10. Preliminary schedule (critical path schedule to be required).
11. Additional submittals as outlined in Section 01300, Submittal Procedures. (Bidders are responsible to review these submittal requirements on their own.)

- * Draft project plans must have sufficient detail to show that the Bidder has an understanding of the project and the necessary expertise to complete the work.

R. Contract Award:

1. Following the DEPARTMENT and the Engineers review and approval of the apparent low bidder's five-day submittals, a letter of Intent to Award will be issued to the CONTRACTOR. The low responsible bidder selected will have 14 calendar days to submit the following:
 - a. Signed agreement (Section VI).
 - b. Bonds (Section V).
 - c. Insurance certificates (Section V).
 - d. Bid breakdown (to be consistent with bid form and measurement for payment section of contract documents).
 - e. Consultant/CONTRACTOR detailed M/WBE-EEO Plan (in electronic format).
 - f. Additional submittals as outlined in Section 01300, Submittals. (Bidders are responsible to review and verify these submittal requirements on their own.)
 - A. Draft shop drawings and equipment specifications.
*Draft project plans must have sufficient detail to show that the Bidder has an understanding of the project and the necessary expertise to complete the work.
 - B. Once the 14-day submissions are reviewed and approved, the Contract must be routed through the DEPARTMENT, Department of Law, and the Office of the State Comptroller. Contract award roughly estimated for this project for late summer/early fall 2013. Time for award dependent on how well contractor completes submittal process following bid opening.
 - C. The Contract will be awarded to the lowest, responsive, and responsible bidder that has prepared acceptable required submittals in the opinion of the Department, as stipulated in Section III, Article 5.

- D. A submittal schedule for shop drawings must be submitted to the Engineer within 10 days after being given Notice to Proceed in accordance with the contract documents.

CONTRACTOR's project schedule must take into account time to submit and review shop drawings.

There will be no approval given during the bidding period or prior to award of the contract for any "or-equal" or substitution equipment, systems, or items.

BID AS SPECIFIED

2. CONTRACTOR should become familiar with contract requirements associated with submittals of "or-equal" or substitute items as stipulated within Section VIII, Article 5.7.1. if needed following contract award. Change order required to modify contract.

S. Miscellaneous:

1. The DEPARTMENT is exempt from sales and compensating use taxes for all materials, equipment, and supplies. CONTRACTOR responsible for contacting NYS Department of Taxation and Finance to secure tax exempt status for this project. The DEPARTMENT does not get involved. Department will provide contractor with letter from NYSDOL verifying the exemption.
2. As per the contract, subcontracting is limited to 40 percent on this project. (Does not include transportation and disposal).
3. Insurances - **(MUST BE NYS LICENSED).**
4. ULSD and BART requirements. Signed certification required as part of final completion at end of project.
5. Attendees were informed that if they wish to tour the site after the pre-bid meeting date to obtain date they would have to make their request through the Department. Requests for tours will be considered through C.O.B. Wednesday, May 15, 2013.
6. During contract work all documents and data are to be submitted in electronic format to the Engineer and Department. The Engineer/Department will not approve a final report unless, and until, all documents and data generated in support of that report have been submitted in accordance with the electronic submission protocols. Information on the format of data submissions can be found at:

<http://www.dec.ny.gov/chemical/62440.html> Information on document submissions can be found at:
<http://www.dec.ny.gov/regulations/2586.html>

T. Contract Time:

1. Length of contract is *300 calendar days from NTP (length changed per Addendum No.2 to include winter shutdown) to achieve substantial completion, and 360 calendar days from NTP to achieve final completion (length changed per Addendum No.2 to include winter shutdown) or 60 calendar days from substantial completion whichever is sooner.*
2. Liquidated damages are \$1,642 per calendar day for substantial completion, and \$1,540 per day for final completion.

U. Past Problems with Bids:

1. Received late - bids after the 1:00 p.m. deadline. Late bids will be returned unopened. If delivering in person on day of bid opening must contact David Chiusano a day or two in advance to secure access to the building. If not contacted, Department can't ensure that bid will be delivered on time.
2. Bidders have put conditions on the bid. Conditioned bids will be rejected.
3. The forms provided within the Contract Documents were not used or missing.
4. Math errors (Please check all math!).
5. Bids sent to incorrect address.
6. Bidders have marked up or attempted to change language within bonds and insurance certificates included within contract. Not acceptable and bidder may be considered unresponsive.
7. Insurance certificates/policies must be current.
8. Not all required forms submitted/signed.

V. M/WBE & EEO Requirements:

1. The selected bidder must make good faith efforts to subcontract at least 10 percent minority and 10 percent to women's business enterprises, respectively.

2. The selected bidder agrees to make good faith efforts to employ minorities and women for at least 10.0 percent and 10.0 percent, respectively for each of the work force hours needed for completion of the project.
3. The NYS Directory of certified M/WBE is available on the internet at:

<http://www.empire.state.ny.us> . NYS Department of Economic Development (DED) can also be contacted by phone at (518) 474-1979.
4. The apparent low bidder must send the M/WBE Utilization Plan to Michele June, tel: (518) 402-9311, Bureau of Minority and Women's Business Programs at the DEPARTMENT Albany office. Appropriate phone and fax numbers have been specified within the Contract Documents in Section III. Electronic PDF forms available on the Department web site at <http://www.dec.ny.gov/about/48854.html>.
5. Good faith efforts shall include:
 - Advertisement for services in the local minority or women-owned business newspapers.
 - Providing adequate time for M/WBE firms to respond to bids.
 - Provisions for realistic time and delivery schedules for bidders.
6. CONTRACTOR will be required to complete M/WBE-EEO quarterly reports outlining their utilization.
7. New Appendix B, Section VII: Article 15 Requirements; “... *if Contractor is found to have willfully and intentionally failed to comply with the MWBE participation goals set forth in the Contract, such a finding constitutes a breach of contract and the Contractor shall be liable to the Department for liquidated or other appropriate damages, as set forth herein.*”

W. Questions Regarding Bid Documents:

Technical questions which arise after the question and answer period at the pre-bid meeting are to be directed to David Chiusano at the Department. Addendum No.2 is currently anticipated to be issued late during the week of May 12, 2013 via e-mail. Schedule for release is subject to change. No hard copies will be delivered.

Note: Questions shall not be accepted from CONTRACTORS after C.O.B Friday, May 17, 2013. E-mail questions will be acceptable.

X. Known Primary Changes to Contract Documents:

No known major changes identified to date.

At this time, it does not appear that the May 23, 2013 bid opening date will be extended.

Y. The pre-bid meeting ended at approximately 12:30 P.M. EST following the site walk.

Z. Attached are significant questions, received prior to, during and after the Tuesday, May 7, 2013 pre-bid meeting, and the Department's/Engineers responses. (Attachment F).

*** END OF MEETING MINUTES ***

ATTACHMENT E TO
ADDENDUM No. 2 ALTECH SPECIALTY STEEL OU2A SITE
CONTRACT D008535

May 7, 2013 Pre-Bid Meeting Walkover Attendance List

ALTECH SPECIALTY STEEL OU2A SITE
City of Dunkirk, Chautauqua County, New York

New York State Department of Environmental Conservation Contract #D008535

Pre-Bid Site Walk - Tuesday, May 7, 2013, 11:00 A.M.

Pre-bid Sign-in Sheet

Persons Name In Attendance:	Company Representing:	Mailing Address:	Phone Number:	Need Bid Envelope (Prime Contractors Only)? Y or N	Email Address:
Dave Chiusano	NYSDEC - Albany	Remediation Bureau E, Section A, 625 Broadway, Albany, New York 12233-7017	(518) 402-9814	N	dichiusa@gw.dec.state.ny.us
Matt Sausville	Shaw Environmental	CB&I 13 British American Boulevard Latham, NY 12110	(518) 785-2355	N	matt.sausville@CBI.com
Mike Danker	Shaw	13 British American Blvd.	315-657-6800	N	Michael.Danker@CBI.com
Maurice Marcell	NYSDEC - RG	270 Michigan Ave	716-851-7220	N	MFRIDGES@ga.dec.state.ny.us
Tim O'Rourke	DEAL ENV	208 FRONT ST BOSTON, MA 02101	607-687-1234	Y	TORONTO.K.C.PKENV.COM
Greg Gossan	Seaguard Env	58 PONTIAC ST BOSTON, MA 02101	860-455-3407		SEAGUARD.ENV.COM
Kevin Glesser	DEC RG	270 Michigan Ave 386	716-851-7220	N	kglesser@gw.dec.state.ny.us
Ros Chapra	MCI	3368 Maryland Dr. N.F.N.Y 14304	716-282-5244		
Ed Ruffali	MCI	"	"	Y	
Anthony Sparrow	Seaguard Enviro	58 Pontiac St. BOSTON, MA 02101	413-540-1405	Y	Anthony@SeaguardEnviro.com
William Bely	TVA Hill ENV.	5500 MAIN, WILMINGTON, DE 19801	716-204-8244	Y	WILLIAM.BELY@TVA.ILLCONSTRUCTION.COM
John Hoffman	PARADIGM	17E Lake Ave Rochester, NY	716-818-5671	N	jhoffman@paradigmenv.com
Ken Sausville	POC - EUSE WATER SUPPLY	761 Cayuga St, Lewiston, NY 14602	716-870-0081	N	K.Sausville@PocRegan.com
Tony Alu	Ricciulli Enterprises	6900 W. Henrietta Rd.	585-370-0331	N	tony.alu@RicciulliEnterprises.com

ALTECH SPECIALTY STEEL OU2A SITE

City of Dunkirk, Chautauqua County, New York

New York State Department of Environmental Conservation Contract #D008535

Pre-Bid Site Walk - Tuesday, May 7, 2013, 11:00 A.M.

Pre-bid Sign-in Sheet

[illegible]

ALTECH SPECIALTY STEEL OU2A SITE
 City of Dunkirk, Chautauqua County, New York

New York State Department of Environmental Conservation Contract #D008535

Pre-Bid Site Walk - Tuesday, May 7, 2013, 11:00 A.M.

Pre-bid Sign-in Sheet

Persons Name In Attendance:	Company Representing:	Mailing Address:	Phone Number:	Need Bid envelope (primes contractors only) ? Y or N	Email Address:
Kent Peterson	P.i. Dredging	7560 Lepor Drive Minerva, NY	715-892-0460	N	kpeterson@petersencompanies.com
Mark Petersen	"	"	715 "	"	mpetersen@petersencompanies.com
Will McDonald	Apollo Dredging	4511 Hyde Park Blvd Niagara Falls	716-983-6844	Y	will@apollodismantle.com will@apollodismantle.com
Chris Baron	GZA GeoEnv.	585 Washington St. 11th Fl	716-244-7046	Y	christopher.baron@gea.com
Brian Spangler	Horizon Environmental	590A Collier Rd. 4th Fl Chester, NY	716-538-8532	Y	Brian@horizonenviro.net
Linda Grimmer	DP Tech Env.	500 Commercial Dr 1380 macedonia way Pittsford, NY	716-525-1962 570-383-4151	N	grimmerl@dp-tech-us.com
Jeff Macdonald	Site Environmental Group	Jefferson Twp PA 18436	570-383-4151	Y	jeffmacdonald@seenv.com
Steve Baum	Lockwood Remediation	30 Box 301 Mantua, NY 13104	515-878-8556	N	sbaum@LRT-LLC.net

ALTECH SPECIALTY STEEL OU2A SITE
City of Dunkirk, Chautauqua County, New York
New York State Department of Environmental Conservation Contract #D008535
Pre-Bid Site Walk - Tuesday, May 7, 2013, 11:00 A.M.
Pre-bid Sign-in Sheet

Persons Name In Attendance:	Company Representing:	Mailing Address:	Phone Number:	Need Bid envelope (primes contractors only) ? Y or N	Email Address:
MIKE SCHWARTZ	EWMT	Beverly Glen Court Alexandria, VA	584-788-5346		MSCHWARTZ@CENVA1-11111.com
Joe Sant	" "	" "	484-367-3098		JTSANT@CENVA1-11111.com
Drew Lent	Tetra Tech Inc	1000 Pittsford-Victor Road Pittsford, NY 14534	585-999-6183 ext 224	Y	drew.lent@tetra.tech.com
STEVEN LEITMAN	GES	445 NERO DR. CHEEKSIDE NY	585-953-6215	N	SLLEITMAN@GESCONVING.COM
John Trotta	Rosillico Env.	1750 New Highway, Farmingdale NY	631-249-1872	Y	jtrotta@rosillico.com
Casey Welch	harkins env.	C Welch@harkins.com	585-953-6215	N	
Don Srouse	harkins env.	DSrouse@harkins.com			
Brian Harris	ESG	177 Wakes Ave, Tonawanda NY	716-695-6120	Y	bharris@esgenv.com
LT	ESG	" "	" "	Y	lhughrey@esgenv.com
MIKE FAY	EGSVT	4429 WARDEN AVE, LAKE CHARLES, LA	504-734-1654	Y	mrfay@egsvt.com

ALTECH SPECIALTY STEEL OU2A SITE
 City of Dunkirk, Chautauqua County, New York
 New York State Department of Environmental Conservation Contract #D008535
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Persons Name In Attendance:	Company Representing:	Mailing Address:	Phone Number:	Need Bid envelope (primes contractors only) ? Y or N	Email Address:
JAY GRIESE	HES CONSTRUCTION	5150 E 65TH ST. SOUTHERN LINDIAGROCKS THE 46TH	317-284-1195	YES	JAY.GRIESE@HESCONSTRUCTION.COM
Tom Lankford	2nd Construction	#13600 RAILROAD ST. NEW NY HIGHWAY	716-937-6575	YES	Tom.Lankford@2ndconstruction.com
Bill Hunter	OP-TECH	1 Adler Drive East Syracuse, NY 13057	315-383-0733	YES	hunterb@op-tech.us
Eric Warren	Russo Dev. (LAB)	3740 Milestrip Rd. Shadell, NY 14219	716-844-8715	YES	ericaireu@russodev.com
Jim Stadelmaier	SPECTRUM ASPHALT	646 CAMP AVE N. KINGSBURG, RI 02852	716-597-6596	NO	JSTADELMAIER@SPECTRUM.COM
DAVID LEI	ENVIRONMENTAL POSITIVE	50 OAKWOOD BLVD. CLAYTON, NY	518-369-5946	YES	DAVID.LEI@ENVIRONMENTALPOSITIVE.COM
Gary Grabner	POSITIVE	1750 New Highwayway, PAUMINGAC, NY	609-915-0414	✓	ggrabner@positiveinc.com
Nick Thomas	Rain For	5026 Tec Drive ALLEN, NY 14614	716-888-0541	NO	nthomas@hef.org
Josh Brown	Lake Shore Paving	7 Osmer St. Jamestown, NY	716-664-4440	YES	Josh.Brown@lakeshorepaving.com
Larry Pimentel	OSC	333 GANSON ST. BFLD. 14003	716-856-3333	YES	lpimentel@oscinc.com
Joe Strawder	OSC	"	"	YES	JSTRAWDER@OSCINC.COM

ATTACHMENT F TO
ADDENDUM No. 2 ALTECH SPECIALTY STEEL OU2A SITE
CONTRACT D008535

Pre and Post Bid Meeting Questions and Answers

Addendum No. 2 - Attachment F

**PRE-BID AND POST BID CONFERENCE QUESTION & ANSWERS
ASSOCIATED WITH REMEDIAL CONSTRUCTION AT THE
ALTECH SPECIALTY STEEL OU2A SITE
CONTRACT NO. D008535**

NOTE: The following significant questions were verbally received by the Department and Shaw at the May 7, 2013 pre-bid meeting at the site in addition to significant questions received by the Department following the pre-bid meeting. Note, only those questions related to ambiguities/clarifications in the contract documents are presented here. Questions asked during the pre-bid meeting that are clearly answered in the contract documents have not been repeated below.

Altech Specialty Steel OU2A Site Pre-bid Meeting Questions

- Q1. The bid document indicates that the prime contractor cannot subcontract greater than 40% of the project. Is this a firm requirement or is there flexibility?**
- R1.** *Per Section IV, Article 6 of the contract documents the maximum subcontracting allowed for this contract is 40% unless a higher percentage is approved by the Department in writing. This is typically formalized after contract award with an Administrative Agreement executed between the parties.*
- The 40% subcontracting limit is initially evaluated during the bid award process by reviewing bid breakdown, MWBE plans, etc. The percentage is regularly evaluated after award once subcontractors are being proposed to work on the project. In addition, the Contractor will be required to submit and update the list of subcontractors working on the project along with their subcontract budgets and M/WBE status if applicable.*
- Q2. The turn-a-round times identified within Section 01425 and Section V- Bid tab for sampling needs to be revised for consistency purposes.**
- R2.** *Bid tab and sampling specification have been revised accordingly via Addendum No.2.*
- Q3. Sampling Specification for additional sampling indicates that “it shall be at contractor’s expense”. Please clarify.**
- R3.** *This reference has been removed from the specification.*
- Q4. What is the Dunkirk POTW charging for water treatment on this project ?**
- R4.** *The unit price to be paid by the Contractor as part of this contract is \$4.75/1000 gallons.*

- Q5.** Will removal of Power poles and decommissioned lines on North end of site be required work as part of this contract?
- R5.** *Yes and shall be paid under bid item LS-4.*
- Q6.** The laydown area and onsite WWTP area currently have debris/storage building/trailers in the way. Will Contractor have to move or will they be removed prior to construction?
- R6.** *The Contractor will be responsible for relocating and/or removing and properly disposing of any debris, storage building, trailers or other obstacles that will interfere with the construction of the laydown area as directed by the Engineer or the Facility.*

Questions Received after the Pre-bid Meeting

The following question (general summary provided) was received by the Department from a potential bidder via e-mail on May 8, 2013:

- Q7.** The potential bidder would like to bid this project as a prime, but doesn't have the required experience in excavation and transportation and handling of hazardous soil/sediment or contaminated water, and would bring in a sub-contractor with Department experience to aid with the hazardous soil aspect. With that being the case, would the Bidder be deemed qualified by the Department?
- R7.** *Without qualifying experience of their own, the bidder would be deemed non-responsive. Subcontractor experience cannot be substituted for inexperience of the Bidder.*

The following question was received by the Department from the Heritage Environmental Services, LLC via e-mail on May 9, 2013:

- Q8:** Heritage Environmental owns a RCRA Subtitle C landfill in Roachdale, Indiana and we modified our Indiana state RCRA permit to accept PCB Remediation waste when authorized under 40 CFR 761.61(a) or 40 CFR 761.61(c). The way this contract language is currently written disposal has been restricted to TSCA permitted facilities only.

Would the Department (thru EPA) consider authorizing the disposal of these sediments under 40 CFR 761.61(c) ?

- R8:** *For remediation waste at or above 50 ppm, disposal is required to be at a TSCA-permitted facility or (with an approval issued by EPA under 40 CFR 761.61(a)) at a RCRA-permitted facility. DEPARTMENT's application to EPA for a 40 CFR 761.61(a) approval proposes disposal in a TSCA facility.*

Remediation waste below 50 ppm shall comply with provisions stated in 40 CFR 761.61(a)(5)(i)(B)(2)(ii).

The following question was received by the Department from the OpTech Environmental via e-mail on May 10, 2013:

Q9: Backfill for Pond – Drawing C7 specifies “Clean Imported Material” while item UC-12 on the bid form references “Approved Off-site Backfill Material: Gravel Fill”. Please clarify which backfill material described in Section 02238 of the specifications (item C-Selected Fill or D- Suitable Material) applies to the backfill for the pond.

R9: *The Measurement of Payment and bid tab has been revised to reference backfill material as “Clean Imported Material”. Contractor may propose backfill material pursuant to any of gradations specified in Section 02238 – Backfill within Articles 2.01A thru 2.01J. Material proposed is subject to approval by the Engineer following contract award.*

Q10: Treatment System Flow – There is a 500 gallon per minute flow requirement for water treatment. Was the intention to have dual system with 250 gallon per minute capabilities running concurrently or are you looking for one system capable of handling 500 gallons per minute?

R10: *The intent is to have dual systems with 250 gallon per minute capabilities running concurrently.*

The following question was received by the Department from Tughill Construction, Inc. via e-mail on May 15, 2013:

Q11: Is the Select Granular layer shown on (Detail 4, Sheet C-8) to be included in bid item UC-12?

R11: *Yes*

Q12: Section 02235-3 Sub Part 3.03 A, will there be an additional bid item established for power washing of bedrock.

R12: *No. Power washing of bedrock shall be paid under bid item UC-8.*

The following questions were received by the Department from the OpTech Environmental via e-mail on May 16, 2013:

Q13: Effluent sampling for the water treatment system is listed in the Measurement and Payment section F 1.1 10. Effluent sampling is also listed under UC -23. Please confirm which bid item effluent sampling is to be included.

R13: *Effluent sampling shall be paid under bid item UC-23. Reference to effluent sampling under Bid Item LS-6 has been removed.*

Q14: At the prebid meeting, the engineer stated that the existing well points could be utilized during the dewatering effort. If the contractor utilizes this approach, is bid item UC-3 applicable?

R14: *Yes, Bid Item UC-3 is applicable. In addition, the Contractor shall bid as specified. Any "or-equal" or "substitution" submittals will be reviewed by the Department and Engineer evaluated after bid award in accordance with Section VIII, Article 5.7.1 of the contract documents.*

Q15: We are not in receipt of addendum 2 which we expect to contain information pivotal to the scope of work. As such, please consider extending the bid due date so as to allow enough time to analyze this expected information.

R15: *The bid opening date has not been extending and remains on Thursday, May 23 at 1:00P.M. E.S.T.*

END

ATTACHMENT G TO
ADDENDUM No. 2 ALTECH SPECIALTY STEEL OU2A SITE
CONTRACT D008535

Section 01425 Revised Sampling Schedule

ADDENDUM NO.2 - ATTACHMENT G
SECTION 01425 REVISED SAMPLING SCHEDULE

Parameter	Sample Analysis	Sample Type	Sample Frequency	QA/QC Frequency	Required Turnaround Time	Level of Reporting	Data Validation Required
Confirmatory Excavation Samples (UC-24)							
PCBs	SW-846 EPA 8082	Composite	1 per 30 LF of sidewall and 1 per 625 SF bottom	1 Dup, MS, MSD and blank per 20 samples	24 hour	Category B	Yes
Metals	SW-846 EPA 6010/7471	Composite	1 per 30 LF of sidewall and 1 per 625 SF bottom	1 Dup, MS, MSD and blank per 20 samples	24 hour	Category B	Yes
VOCs	SW-846 EPA 8260	Grab	1 per 30 LF of sidewall and 1 per 625 SF bottom	1 Dup, MS, MSD and blank per 20 samples	24 hour	Category B	Yes
SVOCs	SW-846 EPA 8270	Composite	1 per 30 LF of sidewall and 1 per 625 SF bottom	1 Dup, MS, MSD and blank per 20 samples	24 hour	Category B	Yes
Willowbrook Pond Post-Excavation Confirmatory Bedrock Samples (UC-24)							
PCBs	SW-846 EPA 8082	Grab	3 at existing sample locations SS-9, SED-2, and SED-5 See Spec	1 Dup, MS, MSD and blank per 20 samples	24 hour	Category B	Yes

ADDENDUM NO.2 - ATTACHMENT G
SECTION 01425 REVISED SAMPLING SCHEDULE

Parameter	Sample Analysis	Sample Type	Sample Frequency	QA/QC Frequency	Required Turnaround Time	Level of Reporting	Data Validation Required
Metals	SW-846	Grab	3 at existing sample locations SS-9, SED-2, and SED-5	1 Dup, MS, MSD and blank per 20 samples	24 hour	Category B	Yes
	EPA 6010/7471		See Spec				
VOCs	SW-846	Grab	3 at existing sample locations SS-9, SED-2, and SED-5	1 Dup, MS, MSD and blank per 20 samples	24 hour	Category B	Yes
	EPA 8260		See Spec				
SVOCs	SW-846	Grab	3 at existing sample locations SS-9, SED-2, and SED-5	1 Dup, MS, MSD and blank per 20 samples	24 hour	Category B	Yes
	EPA 8270		See Spec				
Pre- and Post-Temporary Facilities (UC-24)							
PCBs	SW-846	Grab	32 Samples Total	1 Dup, MS, MSD and blank per 20 samples	24 hour	Category B	Yes
	EPA 8082		See Spec				
Metals	SW-846	Grab	32 Samples Total	1 Dup, MS, MSD and blank per 20 samples	24 hour	Category B	Yes
	EPA 6010/7471		See Spec				
VOCs	SW-846	Grab	32 Samples Total	1 Dup, MS, MSD and blank per 20 samples	24 hour	Category B	Yes
	EPA 8260		See Spec				

ADDENDUM NO.2 - ATTACHMENT G
SECTION 01425 REVISED SAMPLING SCHEDULE

Parameter	Sample Analysis	Sample Type	Sample Frequency	QA/QC Frequency	Required Turnaround Time	Level of Reporting	Data Validation Required
SVOCs	SW-846 EPA 8270	Grab	32 Samples Total See Spec	1 Dup, MS, MSD and blank per 20 samples	24 hour	Category B	Yes
Asbestos	SW-846 600/R-93-116	Grab	32 Samples Total See Spec	1 Dup, MS, MSD and blank per 20 samples	24 hour	Category B	Yes
Waste Characterization (UC-16, UC-18, UC-20, UC-22)							
TCLP PCBs	SW-846 EPA 8082	Composite	3 Samples	1 Dup, MS, MSD and blank per 20 samples	5 day	Category A	Yes
TCLP Metals	SW-846 EPA 6010/7471	Composite	3 Samples	1 Dup, MS, MSD and blank per 20 samples	5 day	Category A	Yes
TCLP VOCs	SW-846 EPA 8260	Grab	9 Samples	1 Dup, MS, MSD and blank per 20 samples	5 day	Category A	Yes
TCLP SVOCs	SW-846 EPA 8270	Composite	3 Samples	1 Dup, MS, MSD and blank per 20 samples	5 day	Category A	Yes

ADDENDUM NO.2 - ATTACHMENT G
SECTION 01425 REVISED SAMPLING SCHEDULE

Parameter	Sample Analysis	Sample Type	Sample Frequency	QA/QC Frequency	Required Turnaround Time	Level of Reporting	Data Validation Required
TCLP Pesticides	SW-846 EPA 8081	Composite	3 Samples	1 Dup, MS, MSD and blank per 20 samples	5 day	Category A	Yes
TCLP Herbicides	SW-846 EPA 8151	Composite	3 Samples	1 Dup, MS, MSD and blank per 20 samples	5 day	Category A	Yes
Demolition/Debris Characterization (UC-16, UC-18, UC-20, UC-22)							
TCLP PCBs	SW-846 EPA 8082	Composite	3 Samples	1 Dup, MS, MSD and blank per 20 samples	5 day	Category A	Yes
TCLP Metals	SW-846 EPA 6010/7471	Composite	3 Samples	1 Dup, MS, MSD and blank per 20 samples	5 day	Category A	Yes
TCLP VOCs	SW-846 EPA 8260	Grab	9 Samples	1 Dup, MS, MSD and blank per 20 samples	5 day	Category A	Yes
TCLP SVOCs	SW-846 EPA 8270	Composite	3 Samples	1 Dup, MS, MSD and blank per 20 samples	5 day	Category A	Yes

ADDENDUM NO.2 - ATTACHMENT G
SECTION 01425 REVISED SAMPLING SCHEDULE

Parameter	Sample Analysis	Sample Type	Sample Frequency	QA/QC Frequency	Required Turnaround Time	Level of Reporting	Data Validation Required
TCLP Pesticides	SW-846 EPA 8081	Composite	3 Samples	1 Dup, MS, MSD and blank per 20 samples	5 day	Category A	Yes
TCLP Herbicides	SW-846 EPA 8151	Composite	3 Samples	1 Dup, MS, MSD and blank per 20 samples	5 day	Category A	Yes
Imported Material Characterization (UC-14, UC-15, UC-17, UC-19, UC-21)							
PCBs	SW-846 EPA 8082	Composite	3 Samples	1 Dup, MS, MSD and blank per 20 samples	3 day	Category B	Yes
Metals	SW-846 EPA 6010/7471	Composite	3 Samples	1 Dup, MS, MSD and blank per 20 samples	3 day	Category B	Yes
VOCs	SW-846 EPA 8260	Grab	9 Samples	1 Dup, MS, MSD and blank per 20 samples	3 day	Category B	Yes
SVOCs	SW-846 EPA 8270	Composite	3 Samples	1 Dup, MS, MSD and blank per 20 samples	3 day	Category B	Yes

ADDENDUM NO.2 - ATTACHMENT G
SECTION 01425 REVISED SAMPLING SCHEDULE

Parameter	Sample Analysis	Sample Type	Sample Frequency	QA/QC Frequency	Required Turnaround Time	Level of Reporting	Data Validation Required
Pesticides	SW-846 EPA 8081	Composite	3 Samples	1 Dup, MS, MSD and blank per 20 samples	3 day	Category B	Yes
Herbicides	SW-846 EPA 8151	Composite	3 Samples	1 Dup, MS, MSD and blank per 20 samples	3 day	Category B	Yes
Water Treatment Plant Effluent (UC-23)							
PCBs	40 CFR EPA 608	Grab	2 per week	1 Dup, MS, MSD and blank per 2 samples	24 hour	Category B	Yes
SVOCs	40 CFR EPA 625	Grab	2 per week	1 Dup, MS, MSD and blank per 2 samples	24 hour	Category B	Yes
VOCs	40 CFR EPA 624	Grab	2 per week	1 Dup, MS, MSD and blank per 2 samples	24 hour	Category B	Yes
Metals	40 CFR EPA 200.7	Grab	2 per week	1 Dup, MS, MSD and blank per 2 samples	24 hour	Category B	Yes

ADDENDUM NO.2 - ATTACHMENT G
SECTION 01425 REVISED SAMPLING SCHEDULE

Parameter	Sample Analysis	Sample Type	Sample Frequency	QA/QC Frequency	Required Turnaround Time	Level of Reporting	Data Validation Required
Oil and Grease	40 CFR EPA 1664B	Grab	2 per week	1 Dup, MS, MSD and blank per 2 samples	24 hour	Category B	Yes

*

ATTACHMENT H TO
ADDENDUM No. 2 ALTECH SPECIALTY STEEL OU2A SITE
CONTRACT D008535

Revised Contract Drawing C-4



Department of Environmental Conservation

Division of Environmental Remediation

Site Name: Altech Specialty Steel OU2A
Willowbrook Pond Closure

Site Number: 907022

Contract Number: D008535

Location: City of Dunkirk
Chautauqua County, New York

Contract Documents

Shaw Environmental, Inc.

April 2013

New York State Department of Environmental Conservation
ANDREW M. CUOMO, *Governor* JOE MARTENS, *Commissioner*

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SECTION I

Advertisement and Notice to Bidders

New York State Department of Environmental Conservation

Project Name: Altech Specialty Steel OU2A – Willowbrook Pond Closure, NYS Site Number: 907022

Sealed bids for the Altech Specialty Steel OU2A – Willowbrook Pond Closure Site ("project"), will be received by the New York State Department of Environmental Conservation, Division of Management and Budget Services, 10th Floor, 625 Broadway, Albany, New York, 12233-5027, Attn: Bureau of Expenditures until the time of **1:00 P.M. (EST)** and on the date of **Thursday, May 23, 2013**. The bids will be publicly opened and read aloud at the above time and date. Telegraphic or other electronically transferred bids are not acceptable.

The project involves the implementation of remedial activities at the Altech Specialty Steel OU2A – Willowbrook Pond Closure Site located within the City of Dunkirk, Chautauqua County, at the northeast corner intersection of Willowbrook Avenue and Brigham Road (County Road 98B). These include, but are not necessarily limited to, excavation and handling/off-site disposal of impacted materials, excavation/grading of site materials, installation and use of a groundwater dewatering and treatment system, dewatering Willowbrook Pond, excavation of pond sediment, excavation of soil, removing certain structures/building associated with Willowbrook Pond, backfilling, construction of a final surface soil cover system, grading and drainage.

The estimated range for this work is: **\$2.5 million to \$5.0 million**.

Contract Documents are only available in electronic format at no charge. Access to electronic copies of biddable Contract Document drawings, specifications, proposal forms, addenda, and a separate Limited Site Data Document may be downloaded from the Department web site link <http://www.dec.ny.gov/chemical/59233.html>. Hard copies of the Contract Documents are available upon request from the Division of Environmental Remediation, 12th Floor, 625 Broadway, Albany, New York, 12233-7012, Attn: Bureau of Program Management - Contracts and Payments Section at (518) 402-9711.

Proposals will be accepted only from bidders who attend the Pre-Bid Conference. All proposals must be made on the official proposal form and enclosed in the envelope which will be provided at the Pre-Bid Conference. Each proposal must be accompanied by a deposit or a bid bond in the amount of 5% of bid amount. All Bidders must attend a Pre-Bid Conference to discuss special requirements for the contract, to be held on **Tuesday, May 7, 2013 at 11:00 A.M. prevailing local time**. **ATTENDANCE IS MANDATORY AS A CONDITION OF BIDDING.**

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

The Contractor shall adhere to the New York State Department of Environmental Conservation Guidelines Regarding Permissible Contacts During a Procurement and the Prohibition of Inappropriate Lobbying Influence. For the purpose of this Notice to Bidders, the Director of the Division of Environmental Remediation, 12th Floor, 625 Broadway, Albany, New York, 12233-7011, shall be the Department's designated Representative. Any questions, however, shall be directed to **David J. Chiusano**, the Department's Project Manager and Designated Contact, at **(518)402-9814**.

Bidders may receive announcements of future procurement opportunities by signing up for the NYSDEC -DER's electronic mailing list ("GovDelivery") at <https://public.govdelivery.com/accounts/NYSDEC/subscriber/new>.

Joe Martens
Commissioner

SECTION II

Terms and Definitions

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

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

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

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

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

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

Bidder - The person, partnership, corporation, joint venture or other combination thereof, who has submitted a Bid.

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

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

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

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

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

Commissioner - Commissioner of the New York State Department of Environmental Conservation.

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

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

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

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

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

Correction Period - The period of time within which Contractor shall promptly, without cost to Department and in accordance with Department's written instructions, either correct Defective Work or if it has been rejected by Department, remove it from the site and replace it with nondefective Work, pursuant to paragraph 12.12 of the General Conditions.

Cost and Pricing Data - Refers to all data available to and relied upon by Contractor in negotiating, pricing or performing Work covered by a Change Order or a Proposed Change Order, or involved in a claim. Sample Cost and Pricing Data include data and supporting documents pertaining to labor wages and material rates, crew mixes, labor productivity, payroll costs, price catalogs, quotations from and payments to Subcontractors, Suppliers or others, equipment production rates, equipment costs, sales and use taxes, cost of premiums for Bonds and Insurances, costs related to the determination of general and administrative overhead, site office overhead, profit, estimates and estimating guides, Contractor's computations and projections, and all of the relevant assumptions made by Contractor in pricing or figuring increases or decreases in Contract Price or Contract Time.

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

Day - A calendar day of 24 hours lasting from midnight one day to midnight the next day.

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

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

Department - New York State Department of Environmental Conservation.

Dispute - A Claim that is not resolved pursuant to Section VIII, Article 10 of the General Conditions becomes a Dispute to be resolved under Appendix B Article IX of the Agreement.

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

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

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

Designated Representative to Resolve Disputes- Department employee responsible for resolving all disputes between Contractor and Project Manager, as identified in the Supplementary Bidding Information and Requirements.

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

Effective Date of the Agreement - The date on which the Agreement is approved and filed by Comptroller.

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

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

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

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

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

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

Notice of Award - Department's written notice of Agreement approval and filing by the New York State Office of the State Comptroller and stating pertinent information with which Contractor must comply.

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

Notice to Proceed - The written notice issued by Department to Contractor establishing the Date for Commencement of the Contract Time and, where applicable, authorizing Contractor to proceed with the Work at the site.

Overhead - General and administrative costs (whether at the site or in Contractor's principal or branch offices) and all other miscellaneous costs not assigned to a specific payment item as identified in Articles 9, 10 and 11 of the General Conditions.

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

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

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

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

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

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

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

Proposed Change Order - A document prepared on a form furnished by Department which is to be used: 1) by Department when requiring that Contractor figure the potential effect on Contract Price or Contract Time of a proposed change, (the proposed change is ordered upon signing by Department), or 2) by Contractor to notify Department that in the opinion of Contractor a change is required to respond to differing or unforeseen physical conditions under which the Work is to be performed as provided in paragraph 3.11 or 3.12 of Article III of the General Conditions or to emergencies under paragraph 5.22 of Article V of the General Conditions, or has been ordered in a Field Order, or in Engineer's approval of a Shop Drawing or sample, or in Engineer's written interpretation or clarification of the requirements of the Contract Documents. When signed by Department, a Proposed Change Order may or may not fully adjust Contract Price or Contract Time, but is evidence that the change directed or documented by the Proposed Change Order will be incorporated in a subsequently issued Change Order following negotiations as to its effect, if any, on Contract Price or Contract Time.

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

Resident Project Representative - Person acting as assistant to the Resident Engineer who is assigned to the site or any part thereof.

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

Restricted Period - The time period which runs from contract bid advertisement to contract approval by the New York State Office of the State Comptroller.

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

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

Site - The area within the vertical boundaries of the location where the Contract Documents require Work by Contractor.

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

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

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

Supplier - A manufacturer, fabricator, supplier, distributor, material man or vendor.

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

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

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

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

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

SECTION III

Bidding Information and Requirements

ARTICLE 1 - Address for Notices

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

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

ARTICLE 2 - Interpretation of Bidding Documents

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

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

ARTICLE 3 - Bid Instructions

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

The outside of the envelopes must bear the name and address of the Bidder, the Project name and Project designation number from the cover of the specification book, and be clearly marked as "Bid."

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

Department is responsible for providing Addenda only to those persons or firms listed as having attended the mandatory Pre-Bid Conference.

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

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

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

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

Each Bid shall specify in words and figures, the correct gross sum, in the manner hereafter described for which the Work shall be performed according to the Bidding Documents together with a unit price expressed in words and figures for each separate items for which such a price is required. The lowest Bid shall be determined by **Department** on the basis of the total sum for which the entire Work will be performed, arrived at by a correct computation of all items specified in the Bidding Documents at the prices stated in the Bid. **Department** reserves the right to reject any Bid in which the Bid prices appear to constitute an unbalanced Bid for the work.

In the event there is a discrepancy in any Bid between the unit prices and the extended totals, the unit prices shall govern. In the event there is a discrepancy in any Bid between the prices written in figures and the unit or lump sum prices written in words, the prices written in words shall govern. **Department** may reject as non-responsive bids which do not contain a price for every numbered item contained in the Bid form, or may insert a zero for every numbered item that doesn't contain a price.

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

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

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

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

Permissible Contacts During a Procurement and Prohibition of Inappropriate Lobbying Influence - Pursuant to State Finance Law §§139-j and §139-k, this contract includes and imposes certain restrictions on communications between a Governmental Entity and an Offerer/Bidder during the procurement process. An Offerer/bidder is restricted from making contacts from the earliest notice of intent to solicit bids through final award and approval of the Procurement Contract by the Department of Environmental Conservation (Department) and, if applicable, Office of the State Comptroller ("restricted period") to other than designated staff unless it is a contact that is included among certain statutory exceptions set forth in State Finance Law §139-j(3)(a). Designated staff, as of the date hereof, is identified on page I-1 of Section I, Advertisement and Notice to Bidders. Department employees are also required to obtain certain information when contacted during the restricted period

and make a determination of the responsibility of the Offerer/bidder pursuant to these two statutes. Certain findings of non-responsibility can result in rejection for contract award and in the event of two findings within a 4 year period, the Offerer / Bidder is debarred from obtaining governmental Procurement Contracts. Further information about these requirements, including a copy of the new lobbying law, can be found at <http://www.ogs.state.ny.us/aboutogs/regulations/defaultAdvisoryCouncil.html> .

ARTICLE 4 - Modification or Withdrawal of Bid

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

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

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

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

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

ARTICLE 5 - Required Bid Submittals

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

- a) The following items are to accompany Contractor's Bid submitted to the **Department** as required in Article 3:
- Form of Bid filled out
 - Bid Bond or Certified Check
 - Non-Collusion Certificate
 - MacBride Fair Employment Principles (signed)
 - Offerer's Affirmation of Understanding of and Agreement pursuant to State Finance Law §139-j (3) and § 139-j (6) (b) (signed)
 - Use of Best Available Retrofit Technology (BART) and Ultra Low Sulphur Diesel (ULSD) Provision (signed)
 - Offerer Disclosure of Prior Non-Responsibility Determinations (signed)
- b) The following items shall be submitted to the Project Manager within **5 days** of notification that the Bidder is the apparent low Bidder:
- Off-site permitted facility to receive material along with a copy of the facilities permit
 - Plan of Operations (Work Plan) and Progress Schedule, Health and Safety Plan, Sampling Plan, and QA/QC Plan
 - Statement of Surety's intent, complete and signed by and duly authorized surety company licensed to do business in the State of New York
 - A copy of the proposed site Pollution Liability insurance policy demonstrating that the bidder has the required \$1 million of Pollution Liability insurance.
 - A description of projects completed by Bidder documenting its experience in this type of work
 - Proof of Availability of insurance or Certificate of insurance with endorsements including written verification that the insurance carrier(s) are licensed in New York State. Licensed insurance carriers can be verified at <http://www.ins.state.ny.us/>. If the Contractor proposes to use non-admitted carrier(s) for pollution or professional liability insurance, then three declinations on forms required by New York State Insurance Regulation 41 (i.e., Part A - Affidavit by Excess Line Broker or Part C - Affidavit by Producing Broker) must be submitted. Pollution or professional liability insurance provided by excess line carriers shall be from a carrier who is a member of the Excess Line Association of New York (ELANY). All other insurance must be through carriers licensed to do business in New York State. All carriers must be properly identified by complete name, address, National Association of Insurance Commissioners (NAIC) number and whether or not they are a member of ELANY (if applicable) in the submittal. Refer to Article 4, Bonds and Insurance, of the General Conditions for additional information.

- Completed NYS Vendor Responsibility Questionnaire (CCA-2) or an affidavit of no change (if appropriate). If the forms are filed using OSC's online VendRep System a letter, certifying that the forms have been so completed and submitted, must be sent to the Project Manager.
 - M/WBE Workplan. If the forms are filed using the Department's electronic M/WBE System a letter, certifying that the forms have been so completed and submitted must be sent to the Project Manager.
 - Any other information that demonstrates the Bidder's ability to perform the work described herein
 - Low bidders may be asked to submit additional information to demonstrate competency
- c) The following items shall be submitted to the Project Manager within **14 days** from the date of the Notice of Intent to Award letter from **Department**:
- Executed Agreement (four copies with original signatures)
 - Performance Bond with Power of Attorney & Surety Financial Statement (original and three copies)
 - Labor & Materials Bond with Power of Attorney & Surety Financial Statement (original & three copies)
 - Bid Breakdown of Items (original)
 - Certificates of Insurance (original and three copies)
 - Consultant/Contractor Detailed M/WBE-EEO Utilization Plan (original). If the forms are filed using the Department's electronic M/WBE System a letter, certifying that the forms have been so completed and submitted must be sent to the Project Manager.

ARTICLE 6 - Bid Security and Bonds

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

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

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

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

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

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

ARTICLE 8 - Other Contracts and Occupancy

Department may award other contracts in connection with this Work. **Contractor** shall not have exclusive occupancy of the real property within or adjacent to the limits of the Work.

In case of interference between the operations of utility owners and different contractors, **Department** will be the sole judge of the rights of each contractor and the sequence of work necessary to expedite the completion of the entire Project. In all such cases, **Department's** decision shall be accepted as final.

ARTICLE 9 - Taxes

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

ARTICLE 10 - Experience and Financial Statements

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

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

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

The low Bidder shall demonstrate its responsibility to perform and complete Work by submitting a statement of its experience and the experience of any Subcontractor which the low Bidder intends to use to perform the Work. **Department** may require the low Bidder to further demonstrate its responsibility to perform and complete Work by submitting an additional experience and financial statement or information seven (7) days after bid opening or within seven (7) days of **Department** request, which shall include at a minimum, information pertaining to the Bidder's financial resources. The submitted financial information shall be certified by a Certified Public Accountant, and shall be submitted in the form required by **Department**. This can also apply to **Contractor's** subcontractors.

ARTICLE 11 - Preliminary Progress Schedule

The Preliminary Progress Schedule shall consist of three copies of a narrative description and a time-scaled critical path method diagram or bar chart diagram as specified in the Contract Documents. The narrative in the Preliminary Progress Schedule shall describe the order in which Bidder proposes to perform the Work pursuant to the specified Contract Time(s) and Work sequence conditions indicated in or required by the Bidding Documents.

It shall also indicate proposed starting and completion dates for Work expressed in terms of days elapsed from the Notice to Proceed associated with each division of the Specifications within each major structure or geographical

area of Work. Activities shall further identify significant submittals, approvals and associated deliveries, significant testing, major **Department** responsibilities, and responsibilities of affected utilities and third parties. The narrative shall include monthly percentages of completion for the Work in relation to the rate of progress anticipated in the Preliminary Progress Schedule.

ARTICLE 12 - Bid Breakdown

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

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

ARTICLE 13 - Subsurface and Technical Information

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

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

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

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

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

ARTICLE 14 - Underground Facilities

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

ARTICLE 15 - Examination of Bidding Documents and Site

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

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

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

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

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

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

ARTICLE 16 - Subcontractors, Suppliers or Others

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

ARTICLE 17 - Award of Contract

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

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

In order to be considered responsive, a Bid shall be completed, signed and be responsive in all respects to the Bidding Documents unless informalities are waived by **Department**.

In order to be considered responsible, a Bidder must establish to the complete satisfaction of **Department** and **Engineer**, as a minimum, that it has adequate and satisfactory experience and financial resources to meet the obligations under the Contract and award of the Contract would be in the best interest of the State. A Bidder's prior experience shall be considered satisfactory when among other factors, its performance of prior work was timely, of good quality, in compliance with any contract requirements including contracted costs and schedule, and in compliance with applicable Law. The Bidder must have a minimum of three (3) years satisfactory experience in construction of the work to be performed.

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

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

ARTICLE 18 - Time is of the Essence

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

ARTICLE 19 - Applicability of Federal, State and Local Law

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

It is the responsibility of each Bidder to be informed of and comply with Federal, State and local Laws, affecting the cost, schedule, progress, performance or furnishing of the Work. This requirement includes, but is not limited to, applicable regulations concerning minimum wages, nondiscrimination in employment, affirmative action,

protection of public and employee safety and health, environmental protection, fire protection and permits, and fees and licensing.

ARTICLE 20 - M/WBE and EEO Requirements

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

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

In accordance with Executive Law Article 15-A, **Department** is required to make available the NYS Directory of Certified Minority and Women Owned Business Enterprises. Empire State Development has put the Minority and Women's Business Development Directory on the Internet at www.empire.state.ny.us. Support will be available from 9:00 a.m. to 5:00 p.m., Monday through Friday, except for NYS holidays. If assistance is needed call (518) 474-1979. For additional information and assistance regarding NYS Certified M/WBE's, please contact the Department's Minority and Women's Business Programs Unit at (518) 402-9311.

Pursuant to New York State Executive Law Article 15-A and the attending rules and regulations, an approvable M/WBE and EEO Workplan shall be required within two weeks of the award of a contract. The workplan is requested to state the M/WBE and EEO goals, the areas of work to be considered for solicitation of M/WBE firms, and a listing of M/WBE firms to be used to supply identified subcontracting work/supplies. A Contractor Detailed EEO and M/WBE Workplan form is included and shall be incorporated into the contract.

Contractor shall be required to provide equal opportunities to minorities and women with regard to all jobs necessary for the performance of work or contracts required by the project. In doing so, **Contractor** agrees to make good-faith efforts to employ minorities and women for at least the percentage stipulated in Section VII Appendix B, of the work force hours required for the completion of the project. Different occupational category work force participation goals may be used to meet these overall goals for work force participation. **Contractor** shall not discriminate against employees or applicants for employment because of race, creed, color, national origin, sex, age, disability, or marital status, and shall undertake or continue existing programs of affirmative action to ensure that minority group persons and women are afforded equal opportunity without discrimination. Such programs shall include, but not be limited to, recruitment, employment, job assignment, promotion, upgrading, demotion, transfer, layoff, termination, rates of pay or other forms of compensation, and selection for training or retraining, including apprenticeship and on-the-job training.

As required by **Department**, **Contractor** shall request of each employment agency, labor union, or authorized representative of workers with which it has a collective bargaining or other agreement or understanding and which is involved in the performance of the contract with the Agency to furnish a written statement that such employment agency, labor union, or representative shall not discriminate because of race, creed, color, national origin, sex, age, disability, or marital status, and that such union or representative will cooperate in the implementation of **Contractor's** obligations hereunder.

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

ARTICLE 21 - Permissible Contacts During a Procurement and Prohibition of Inappropriate Lobbying Influence

Chapter 1 of the Laws of 2005, as amended by Chapter 596 of the Laws of 2005 (collectively referred to as the "Lobbying Law"), makes major changes to the Legislative Law and State Finance Law relative to lobbying on government procurements. More specifically, the Lobbying Law creates two new sections in the State Finance Law: Section 139-j addresses restrictions on "contacts" during the procurement process; and Section 139-k addresses the disclosure of contacts and the responsibility of offerers¹ during the procurement process. The Lobbying Law applies to all procurements initiated on or after January 1, 2006. In this regard, a procurement means a contract or agreement involving an annual expenditure in excess of \$15,000 for a commodity, service, technology, public work, or construction; purchase, sale or lease of real property; or revenue contract.

In conformity with the Lobbying Law, during a procurement's restricted period² the only New York State Department of Environmental Conservation (Department) officer(s) or employee(s) that the offerer may "contact" is/are the Department designated contact person(s) for that procurement. In this regard, "contact" means any oral, written, or electronic communication under circumstances where a reasonable person would infer that the communication was intended to influence a procurement. Exceptions to this rule include:

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

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

An offerer who contacts the Department designated contact person for a procurement during the restricted period must be prepared to provide the following information: name, address, telephone number, place of principal employment and occupation of the person or organization making the contact, and whether the person/organization making the contact is the offerer or is retained, employed or designated by or on behalf of the offerer to appear before or contact the Department about the procurement.

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

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

² The period of time commencing with the earliest public notice, advertisement or solicitation of a Request for Proposals (RFP), Invitation for Bids (IFB), solicitation of proposals or any other method for soliciting responses from offerers intending to result in a procurement contract by the Department, and ending with the final contract award and approval by the Department, and the Office of the State Comptroller (if required).

contain: a certification by the offerer that all information provided to the Department with respect to the Lobbying Law is complete, true and accurate; and a provision authorizing the Department to terminate the contract in the event such information is found to be intentionally false or incomplete.

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

If you require further guidance on the new Lobbying Law, you are encouraged to visit the Advisory Council on Procurement Lobbying website at the following address:

<http://www.ogs.state.ny.us/aboutOgs/regulations/defaultAdvisoryCouncil.html>, where Frequently Asked Questions (FAQ's) and answers adopted by the council have been posted. A copy of the new Procurement Lobbying Law is also available on this website.

SECTION IV

Supplementary Bidding Information and Requirements

ARTICLE 1 - Location and Description of Project

The Site Number of this project is **907022**. The Project is located **on the north side of Willowbrook Avenue, east of Brigham Road and west of Swan Street within the City of Dunkirk, Chautauqua County, New York** (see Figure on page IV-3).

This work for this Project includes, but is not limited to **the installation of erosion and sediment controls, excavation and handling/off-site disposal of impacted materials, excavation/grading of site materials, installation and use of a groundwater dewatering and treatment system, dewatering the recycle water pond, excavation of pond sediment, excavation of soil, removing certain structures/building associated with the recycle water pond, backfilling, construction of a final surface soil cover system, grading and drainage, and other appurtenances in their entirety as shown on the Contract Drawings and as specified herein.**

ARTICLE 2 - Department Representatives

<u>NAME</u>	<u>ADDRESS</u>
<u>Mr. Robert W. Schick, Designated Representative,</u>	<u>Division of Environmental Remediation</u> <u>625 Broadway, Albany, NY 12233-7011</u>
<u>Mr. Gerard W. Burke, Section Chief,</u>	<u>Division of Environmental Remediation</u> <u>625 Broadway, Albany, NY 12233-7017</u>
<u>Mr. David J. Chiusano, Project Manager</u>	<u>Division of Environmental Remediation</u> <u>625 Broadway, Albany, NY 12233-7017</u>
<u>Mr. Maurice Moore, Project Field Representative,</u>	<u>Division of Environmental Remediation</u> <u>270 Michigan Ave., Buffalo, NY 14203</u>

ARTICLE 3 - Pre-Bid Conference

A pre-Bid conference will be held on **Tuesday, May 7, 2013, at the Former Altech Specialty Site, at 11:00 A.M. (EST)** to view the Project area. The pre bid conference is held to discuss the requirements of the Bidding Documents, the protocols for performing the work and the conditions existing at the work site, and to provide for visual inspection of the Site by Bidders. Bidders will be required to sign an attendance sheet to document their presence at the mandatory pre-bid conference. **Department will accept Bids only from those bidders who attend this conference.**

ARTICLE 4 - Additional Bid Submittals

None.

ARTICLE 5 - Other Available Documents

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

1) “April 2013 Limited Site Data Document”, prepared by Shaw Environmental for the New York State Department of Environmental Conservation.

ARTICLE 6 - Subcontracting

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

ARTICLE 7 - Type of Schedule

Contractor shall provide a **critical path method** type of schedule as described in Section X, Spec 00001 - Progress Schedule.

ARTICLE 8 - Wage Rates

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

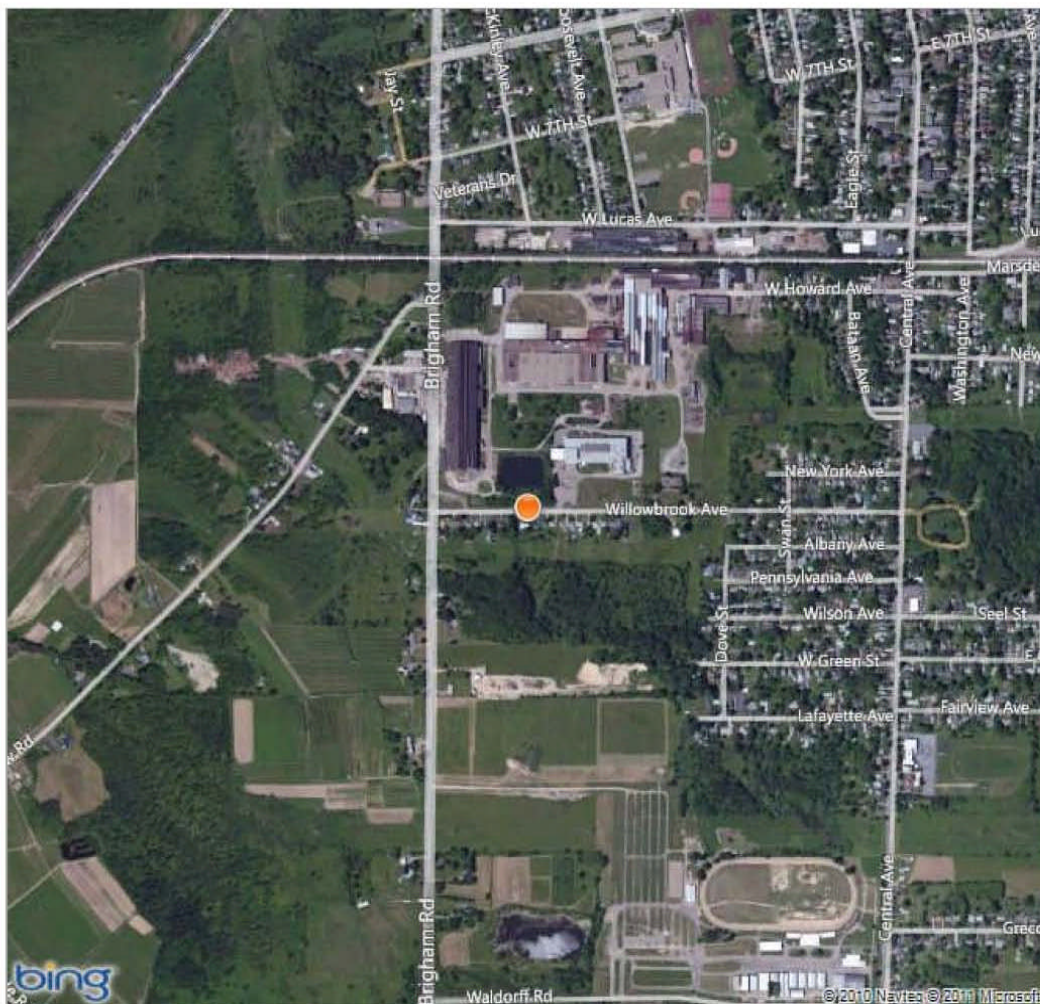
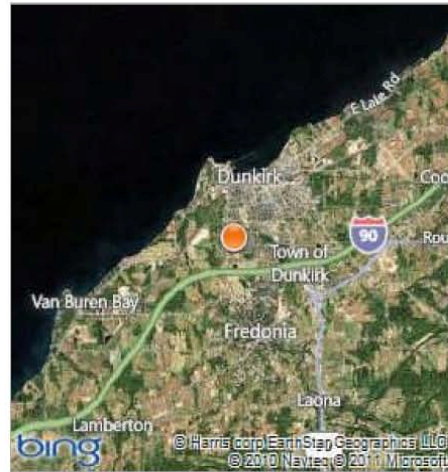
“The Contractor is responsible for any additional costs related to new determinations of the wage rates. The annual determination of the prevailing rates of wages and supplements are usually published on May 31st of each year and are in effect July 1st through June 20th. New determinations will supersede the original schedule or any prior issued annual determination. Any rate change from a previously issued determination becomes effective July 1st, regardless of whether the new determination has been received by the Contractor.

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

bing Maps

Willowbrook Ave, Dunkirk, NY 14048

Altech Specialty Steel Recycle water
Pond Closure Site No 907022, Contract
D008535



SECTION V

ARTICLE 1(a) - Contract Bid Form and Acknowledgment for the Excavation of Contaminated Sediments at the Altech Speciality Steel OU2A Site

Contract Number: D008535, NYS Site Number: 907022

To The New York State Department of Environmental Conservation

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

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

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

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

Attn:- _____
Company _____
Address 1 _____
Address 2 _____
City, State, Zip Code+4 _____
Fax Number () _____ - _____

E-mail Address _____

Bid

***New York State Department of Environmental Conservation
ALTECH SPECIALTY STEEL OU-2A, WILLOWBROOK POND CLOSURE IRM
Contract Number: D008535, NYS Site Number: 907022
UNIT PRICE ITEMS***

<i>Payment Item Number</i>	<i>Description</i>	<i>Unit</i>	<i>Estimated Quantity</i>	<i>Unit Price</i>		<i>Total Amount (\$)</i>
				<i>Words</i>	<i>Figures</i>	
UC-1	Site Services	Day	84			
UC-2	Health and Safety	Day	84			
UC-3	Well Point Installation	Linear Foot	270			
UC-4	Well Point Decommissioning	Linear Foot	270			
UC-5	Monitoring Well Decommissioning	Linear Foot	100			
UC-6	Non-Hazardous Soil Excavation	Cubic Yard	1,100			
UC-7	Hazardous Soil Excavation	Cubic Yard	100			
UC-8	Non-Hazardous Sediment Excavation	Cubic Yard	7,500			
UC-9	Hazardous Sediment Excavation	Cubic Yard	1,500			
UC-10	Non-Hazardous Sediment/Soil Transportation and Disposal	Ton	17,300			
UC-11	Hazardous Sediment/Soil Transportation and Disposal	Ton	2,600			
UC-12	Backfill with Approved Off-site Backfill Material: Gravel Fill	Cubic Yard	47,000			
UC-13	Final Grading, Topsoil, and Seeding	Cubic Yard	1,250			
<div> <div>Total Bid Page V-2: \$</div> <div></div> <div>(Price in figures)</div> </div>						
Contractor Authorized Representative			Contractor Name		Date	

New York State Department of Environmental Conservation
ALTECH SPECIALTY STEEL OU-2A, WILLOWBROOK POND CLOSURE IRM
Contract Number: D008535, NYS Site Number: 907022
UNIT PRICE ITEMS

Payment Item Number	Description	Unit	Estimated Quantity	Unit Price		Total Amount (\$)
				Words	Figures	
UC-14	Backfill Soil Sampling/Analysis (PCB) EPA Method 8082, 1 day TAT	Each	125			
UC-15	Backfill Soil Sampling/Analysis (SVOC) EPA Method 8270, 3 day TAT	Each	117			
UC-16	Sediment /Soil Sampling/TCLP Analysis (SVOC) EPA Method 8270, 5 day TAT	Each	25			
UC-17	Backfill Soil Sampling/Analysis (VOC) EPA Method 8260, 3 day TAT	Each	171			
UC-18	Sediment /Soil Sampling/TCLP Analysis (VOC) EPA Method 8260, 5 day TAT	Each	25			
UC-19	Backfill Soil Sampling/Analysis (Metals) EPA Methods 6010/7471, 3 day TAT	Each	51			
UC-20	Sediment /Soil Sampling/TCLP Analysis (Metals) EPA Methods 6010/7470, 5 day TAT	Each	25			
UC-21	Backfill Soil Sampling/Analysis (Pesticides) EPA Method 8081, 3 day TAT	Each	51			
UC-22	Sediment /Soil Sampling/TCLP Analysis (Pesticides) EPA Method 8081, 5 day TAT	Each	25			
UC-23	Onsite Water Treatment Plant Effluent Sampling Analysis (VOCs, SVOCs, Metals, PCBs) EPA Methods 8260, 8270, 6010/7470, 8082, 3 day TAT	Each	10			
UC-24	Soil Excavation Confirmatory Sample (VOCs, SVOCs, Metals, PCBs) EPA Methods 8260, 8270, 6010/7470, 8082, 3 day TAT	Each	139			
Total Bid Page V-3: \$ _____						
(Price in figures)						
_____ Contractor Authorized Representative			_____ Contractor Name		_____ Date	

New York State Department of Environmental Conservation
ALTECH SPECIALTY STEEL OU-2A, WILLOWBROOK POND CLOSURE IRM
Contract Number: D008535, NYS Site Number: 907022
LUMP SUM ITEMS

<i>Payment Item Number</i>	<i>Description</i>	<i>Unit</i>	<i>Estimated Quantity</i>	<i>Unit Price</i>		<i>Total Amount (\$)</i>
				<i>Words</i>	<i>Figures</i>	
LS-1	Mobilization/Demobilization (limit to 5% of total bid)	Lump Sum	1			
LS-2	Site Preparation	Lump Sum	1			
LS-3	Erosion and Sediment Control	Lump Sum	1			
LS-4	Pier and Metering Shed Demolition/Disposal	Lump Sum	1			
LS-5	Capping and Plugging of Inlet/Outlet Piping	Lump Sum	1			
LS-6	Dewatering	Lump Sum	1			
LS-7	ALTA/ACSM Boundary Survey	Lump Sum	1			
<div style="text-align: right; margin-bottom: 20px;"> Total Bid Page V-4: \$ _____ <i>(Price in Figures)</i> </div> <div style="text-align: right;"> Grand Total Bid: \$ _____ <i>(Price in Figures)</i> </div>						
Contractor Authorized Representative		Contractor Name			Date	

The undersigned acknowledges the receipt of the following Addenda and agrees to be bound by all Addenda whether or not listed herein.

Addendum Number

Date of Addendum

1

April 2013

Accompanying this proposal is bid security in the amount of \$_____; said security is in the form of \$_____
certified check or checks, and \$_____. Bid Bond which shall become the property of the **Department** if
this proposal shall be accepted by **Department**, and the undersigned shall fail to execute and return the contract in
a timely manner or fail to comply with the requirements of the Bidding Documents.

Corporate Seal

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

Legal Name of Person, Partnership or Corporation

By _____

Print Name

Signature

Date _____

Please Complete Information Requested Below:

The P.O. address of the bidder is: _____

Federal Identification Number is: _____

If a Corporation

Name

Address

_____, President

_____, Secretary

_____, Treasurer

If a Partnership

Name

Address

_____, President

_____, Secretary

_____, Treasurer

(ACKNOWLEDGMENT)

State of _____)
S.S.:
County of _____)

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

Notary Public

Bidder's/Proposer's Certification (Page 1 of 2)

**Non-Collusive Bidding and Nondiscrimination in Employment in Northern Ireland
MacBride Fair Employment Principles**

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

Article 1(b) - Non Collusion, State Finance Law §139-d

- 1) The prices in this Bid have been arrived at independently without collusion, consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other Bidder or with any competitor;
- 2) Unless otherwise required by law, the prices which have been quoted in this Bid have not been knowingly disclosed by the Bidder and will not knowingly be disclosed by the Bidder prior to opening, directly or indirectly, to any other Bidder or to any competitor; and
- 3) No attempt has been made or will be made by the Bidder to induce any other person, partnership or corporation to submit or not to submit a Bid for the purpose of restricting competition.

Article 1(c) - MacBride Fair Employment Principles, State Finance Law §165(5)

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

Yes ☐ or No ☐ (check answer) If yes, complete #3
- 3) Shall take lawful steps in good faith to conduct any business operations that it has in Northern Ireland in accordance with the MacBride Fair Employment Principles relating to non-discrimination in employment and freedom of workplace opportunity, regarding such operations in Northern Ireland and shall permit independent monitoring of its compliance with such Principles. (Check Answer):

Yes ☐ or No ☐ (check answer)

NOTE: All references to “bid” “bidder” shall be deemed to include “proposer” “proposal”

Date

Print Name and Title

Signature

Bidder's/Proposer's Certification (Page 2 of 2)

Offerer's Affirmation of Understanding of and Agreement Pursuant to State Ethics Law Provision and State Finance Law §139-j (3) and §139-j (6) (b)

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

Article 1(d) - State Ethics Law Provision

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

Except as follows: (attach information if needed)

(Proposer is to make full disclosure of any circumstances which could affect its ability to perform in complete compliance with the cited laws. Any questions as to the applicability of these provisions should be addressed to the New York State Ethics Commission, 39 Columbia Street, Albany, NY 12207:telephone #1-800-87-ETHICS.)

Article 1(e) - Permissible Contacts During a Procurement and Prohibition of Inappropriate Lobbying Influence, State Finance Law §139-j and §139-k

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

Use of Best Available Retrofit Technology (BART) and Ultra Low Sulphur Diesel (ULSD) Pursuant to Environmental Conservation Law Section 19-0323

Article 1(f) - Use of Best Available Retrofit Technology (BART) and Ultra Low Sulphur Diesel (ULSD) Provision

The Contractor certifies and warrants that all heavy duty vehicles, as defined in New York State Environmental Law (ECL) section 19-0323, to be used under this Contract, will comply with the specifications and provisions of ECL section 19-0323 and any regulations promulgated pursuant thereto, which requires the use of Best Available Retrofit Technology (BART) and Ultra Low Sulphur Diesel (ULSD), unless specifically waived by the Department. Qualification for a waiver under this law will be the responsibility of the Contractor.

NOTE: All references to "bid" "bidder" shall be deemed to include "proposer" "proposal."

Date

Print Name and Title

Signature

ARTICLE 1(g) - Page to Attach

Bid Security

If Bid Security is a Bid Bond, use Bid Bond form and provide certified power of attorney.

ARTICLE 1(h) - Bid Bond

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

The condition of the above obligation is such that whereas the Principal has submitted to New York State Department of Environmental Conservation certain Bid, attached hereto and hereby made a part hereof to enter into a contract in writing, for the

Altech Specialty Steel OU2A Willowbrook Pond Remedial Action (Contract No. D008535)

Now, Therefore

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

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

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

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

(Seal)

Principal

Surety

By _____

(ACKNOWLEDGMENT BY SURETY COMPANY)

State of _____)

County of _____) s.s.:

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

(Seal)

Notary Public

(ACKNOWLEDGMENT)

State of _____)

County of _____) s.s.:

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

Notary Public

ARTICLE 1(i) - Offerer Disclosure of Prior Non-Responsibility Determinations
(Page 1 of 2)

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

Address: _____

Name and Title of Person Submitting this Form: _____

Contract Procurement Number: **D008535**

Date: _____

1. Has any Governmental Entity made a finding of non-responsibility regarding the individual or entity seeking to enter into the Procurement Contract in the previous four years? (Please circle):

Yes ☐ No ☐

If yes, please answer the questions 2 - 4, if no, go to question 5:

2. Was the basis for the finding of non-responsibility due to a violation of State Finance Law §139-j? (Please circle):

Yes ☐ No ☐

3. Was the basis for the finding of non-responsibility due to the intentional provision of false or incomplete information to a Governmental Entity? (Please circle):

Yes ☐ No ☐

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

Governmental Entity: _____

Date of Finding of Non-responsibility: _____

Basis of Finding of Non-Responsibility: _____

(Add additional pages as necessary)

ARTICLE 1(i) - Offerer Disclosure of Prior Non-Responsibility Determinations (Continued)
(Page 2 of 2)

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

Yes ☐ No ☐

6. If yes, please provide details below.

Governmental Entity: _____

Date of Termination or Withholding of Contract: _____

Basis of Termination or Withholding: _____

(Add additional pages as necessary)

Offerer Certification:

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

By: _____ Date: _____
Signature

ARTICLE 2(a) - Corporate Resolution and Certification

"This Article 2(a) is not applicable"

ARTICLE 2(b) - Statement of Surety's Intent

To: ***New York State Department of Environmental Conservation***

We have reviewed the Bid of _____ (Contractor)
of _____ (Address)
for _____ (Project)

Contract Number: D008535

NYS Site Number: 907022

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

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

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

Attest:

Corporate Seal

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

Surety's Authorized Signature(s)

Telephone Number for Bonding Company

Telephone Number for Bonding Broker

Attach Power of Attorney

Article 2(c) - M/WBE-EEO Workplan and Utilization Plan

Contractor must submit a M/WBE Workplan after being announced the apparent low bidder in accordance with Section III, Article 5.b. Contractor must submit M/WBE-EEO Utilization Plan after being issued Notice of Intent to Award in accordance with Section III, Article 5.c. Quarterly reporting is required throughout the term of the contract.

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

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

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

Contractors opting to file electronic forms can obtain the appropriate forms from the website and certify to the Department, via a letter, within the timeframes designated in the Instructions to Bidders, that the forms have been completed and submitted. The Contractor will be able to supply any additional information requested by the Department, by updating the online forms and notifying the Department via letter, that it has been re-submitted.

M/WBE Directory on the Internet

Empire State Development has put the Minority and Women-Owned Business Directory on the Internet. The Internet address is www.empire.state.ny.us, just follow the links to the M/WBE Directory. Support will be available from 9:00 a.m. to 5:00 p.m., Monday through Friday, except for NYS holidays. If assistance is needed, call (518) 474-1979.

Article 2 (d) - Instructions for Completing the New York State Vendor Responsibility Questionnaire CCA-2

***Please Read Before Completing Questionnaire**

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

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

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

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

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

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

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
David J. Chiusano, Project Manager
625 BROADWAY 12th FLOOR
ALBANY, NY 12233-7017
(518)402-9814

ARTICLE 3(a) - Instructions for Certificate of Insurance

Use this form to certify insurance coverage and provide policy information.

Contractor must fill out Section 1 in its entirety before sending to the insurance agent.

Contractor is encouraged to send a copy of Section VIII, "General Conditions," Article 4, along with the Certificate of Insurance Form to its insurance agent in order that all required coverages and provisions are accounted for.

Insurance Agency

- 1) Complete Section 2 of the form.
- 2) Enter N/A if No Excess Umbrella (9) policy is in effect.
- 3) All insurance certificates must have a policy number entered otherwise it will result in rejection of the certificate.
- 4) Certificates must be signed by an authorized representative of the firm.
- 5) Specify policy if Other (10) is in effect, otherwise enter N/A.

Contractor

- 1) Complete Section 1 of the form.
- 2) At the top of the form, check "New" if you are submitting proof of coverage for a new contract. Check "Renewal" if you are submitting proof of renewals.
- 3) Submit original certificate and subsequent renewals to Division of Environmental Remediation, New York State Department of Environmental Conservation, 12th Floor, New York State Department of Environmental Conservation, 625 Broadway, Albany, New York 12233-7017 , **Attention: "David J. Chiusano, Project Manager."** (Also see Section IV, Article 2 for name of project manager).

ARTICLE 3(b)**Certificate of Insurance**

**New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau E, 12th Floor
625 Broadway, Albany, NY 12233-7017**

**NYSDEC-DER Site 907022
Contract No. D008535
Certificate of Insurance
☐ New ☐ Renewal**

SECTION 1

Name and Address of Insured Contractor
(for Coverages 1,2,3,4,6,7,8,9,10)

Name of Insured or Additional Insured (for Coverage 5,6,7 & 10)

State of New York & NYS Dept. of Environmental Conservation
Engineer
City of Dunkirk
RealCo Inc Dunkirk Specialty Steel LLC and Universal Stainless

Location and Description of Work: City of Dunkirk, Chautauqua County, NY; Excavation of Contaminated Pond Sediments

SECTION 2

This is to certify that policies of insurance listed below have been issued to the contractor, named above, and are in force at this time.

Insurance	Policy #	Name of Company Affording Coverage	Expir. Date	Limits of Liability (in thousands)	
				Each Occurrence	Aggregate
1. Contractor's Liability					
2. Contractor's Protective Liability					
3. Complete Operations/Products					
4. Contractual Liability					
5. Owner's Protective Liability					
6. Automobile Liability					
7. Pollution Liability					
8. Worker's Comp. Disability Benefits				Limits as required by Law Limits as required by Law	
9. Excess Umbrella					
10. Other					

Such insurance as is herein certified: 1) applies to all operations of said insured in connection with the work required by the provisions of the documents forming this contract, 2) applies whether or not the contract documents between the insured contractor and the State of New York Department of Environmental Conservation have been executed, and 3) is written in accordance with the company's regular policies and endorsements, subject to the company's applicable manuals or rules and rates in effect as modified by this certificate and the insurance article of the contract.

No policy referred to herein shall be changed, cancelled or coverage terminated for any reason including expiration of the policy or non-payment of premiums until thirty (30) days written notice has been received by the Division of Environmental Remediation, Remedial Bureau E, NYS Dept. of Environmental Conservation, 12th floor, 625 Broadway, Albany, NY 12233-7017. Such notice shall be mailed via certified or registered mail.

(Date Issued)

By _____
(Signature of Authorized Representative)

(Print Insurance Agency Name)

Policy coverages must agree with coverages stated on the Certificate. False statements of coverage are punishable under Section 117 of the New York State Insurance Law.

ARTICLE 3(c) - Instruction for Performance Bond and Labor and Material Payment Bond

- 1) The performance bond and the labor and material payment bond are to be only submitted by the bidder who receives the Notice of Intent to Award letter from **Department**.
- 2) Use the forms that are included in the Contract Documents. **DO NOT RETYPE THE FORMS.**
- 3) Attach a **SEPARATE** certified power of attorney and surety financial statement to **EACH** bond (i.e., one set attached to performance bond and one set attached to labor and material payment bond).

ARTICLE 3(d) - Performance Bond

Date Bond Executed _____

NYSDEC-DER Site Number: 907022

Date Contract Executed By Principal _____

Principal (Name and Address)

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

Full and Just Sum of Bond (Express in words) _____

(Express in figures) _____

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

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

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

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

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

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

Signed, sealed and delivered in the presence of

Corporate Seal of Principal
if a Corporation

Name of Corporation

By _____

Print Name _____

Signature

Date _____

Corporate Seal of Surety Company

Corporation Surety

Business Address

By (President) _____

Attest (Secretary)

Date _____

(ACKNOWLEDGMENT BY SURETY COMPANY)

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

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

(Seal)

Notary Public

(ACKNOWLEDGMENT)

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

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

Notary Public

ARTICLE 3(e) - New York State Department of Environmental Conservation

Labor and Material Payment Bond

Date Bond Executed: _____

NYSDEC-DER Site Number: 907022

Date Contract Executed By Principal _____

Principal (Name and Address) _____

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

Full and Just Sum of Bond (Express in words) _____

(Express in figures) _____

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

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

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

Provided, however, that the Comptroller of the State of New York having required the **Principal** to furnish this bond in order to comply with the provisions of Section 137 of the State Finance Law, all rights and remedies on this bond shall inure solely to such persons and shall be determined in accordance with the provisions, conditions and limitations of said Section to the same extent as if they were copied at length herein; and

Further, provided, that the place of trial of any action on this bond shall be in the county in which the contract was to be performed, or if the contract was to be performed in more than one county, then in any such county, and not elsewhere.

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

Signed, sealed and delivered in the presence of

Name of Corporation

**Corporate Seal of Principal
if a Corporation**

By

Print Name

Signature

L.S.

Date _____

Corporation Surety

Business Address

By (President)_____

Attest (Secretary)_____

Date _____

(ACKNOWLEDGMENT BY SURETY COMPANY)

State of _____)

County of _____) s.s.:

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

Seal

Notary Public

(ACKNOWLEDGMENT)

State of _____)

s.s.:

County of _____)

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

Notary Public

SECTION VI

Agreement

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

____ a corporation organized and existing under the laws of the State of _____

____ a partnership, consisting of

____ an individual conducting business as

the location of whose principal office is _____ hereinafter called "Contractor."

WITNESSETH

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

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

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

ARTICLE 1 - Defined Terms

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

ARTICLE 2 - Work

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

New York State Department of Environmental Conservation

Site Name: Altech Specialty Steel OU2A Willowbrook Pond

Contract Number: D008535

Date: April 2013

ARTICLE 3 - Engineer

Shaw Environmental, Inc. shall assume all duties and responsibilities of and have the rights and authority assigned to Engineer in the Contract Documents in connection with completion of the Work in accordance with the Contract Documents.

ARTICLE 4 - Contract Documents

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

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

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

ARTICLE 5 - Contractor's Representations

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

- 5.1 Contractor has familiarized itself with the nature and extent of the Contract Documents, Work, site, locality, and all local conditions and applicable Laws that in any manner may affect cost, schedule, progress, performance or furnishing of the Work.
- 5.2 Contractor has studied carefully all reports of explorations and tests of subsurface conditions and drawings of physical conditions which are identified in Information to Bidders, as provided in the General Conditions, and accepts the determination set forth in said Section to the extent of the technical data contained in such reports and drawings upon which Contractor is entitled to reply.
- 5.3 Contractor has obtained and carefully studied all such examinations, investigations, explorations, tests, reports and studies which pertain to the subsurface or physical conditions at or contiguous to the site or otherwise may affect the cost, schedule, progress, performance or furnishing of the Work as Contractor

considers necessary for the performance or furnishing of the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents, including specifically the provisions of Article 3 of the General Conditions; and no additional examinations, investigations, explorations, tests, reports, studies or similar information or data are or will be required by Contractor for such purposes.

- 5.4 Contractor has reviewed and checked all information and data shown or indicated on the Contract Documents with respect to existing Underground Facilities. No additional examinations, investigations, explorations, tests, reports, studies or similar information or data in respect of said Underground Facilities are or will be required by Contractor in order to perform and furnish the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents, including specifically the provisions of Article 3 of the General Conditions.
- 5.5 Contractor has correlated (or assumes responsibility for correlating) the results of all such observations, examinations, investigations, explorations, tests, reports and studies with the terms and conditions of the Contract Documents.
- 5.6 Contractor has given Engineer written notice of all conflicts, errors or discrepancies that he (she) has discovered in the Contract Documents and any written resolution thereof is acceptable to Contractor.

ARTICLE 6 - Contract Term

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

- 6.1 The Work will be Substantially Completed within **one hundred fifty (150) calendar days** from the Effective Date of the Agreement plus twenty (20) calendar days.
- 6.2 Separable parts of the Work, if specified in an Attachment A to this Agreement, will be Substantially Completed within the number of days stated in Attachment A from the Effective Date of the Agreement plus twenty (20) calendar days.
- 6.3 The Work will be completed and ready for final payment in accordance with the General Conditions within **two hundred ten (210) calendar days** from the Effective Date of the Agreement plus twenty (20) calendar days or within 60 days of substantial completion, whichever is sooner.
- 6.4 Department and Contractor recognize that the Contract Time(s) specified in paragraphs 6.1, 6.2, and 6.3 above are of the essence of this Agreement, and that Department may suffer financial loss if the Work is not completed within the Contract Time(s) specified above, plus any extensions thereof allowed in accordance with the General Conditions, as amended or supplemented in the Supplementary Conditions.
- 6.5 Accordingly, Contractor agrees to forfeit and pay Department as liquidated damages, and not as a penalty, the amount of **one thousand six hundred forty two dollars (\$1,642)** for each day that expires after the Contract Time specified in paragraph 6.1 above for Substantial Completion until the Work is Substantially Complete. Contractor further agrees to pay Department as liquidated damages, and not as a penalty, each of the amounts set forth in Attachment A if applicable to this agreement for each day that expires after each of the contract times specified in paragraph 6.2 above for substantial completion until the each of the separable parts of the work is substantially complete. After substantial completion of the work, if Contractor shall neglect, refuse or fail to complete the remaining work within the contract time or any proper extension thereof granted by Department, Contractor shall pay Department as liquidated damages, and not as a penalty, the amount of **one thousand five hundred forty dollars (\$1,540)** for each day that expires after the Contract Time specified in paragraph 6.3 above for completion and readiness for payment. These liquidated damages are additive and represent a reasonable estimate, in lieu of any such

proof, of Department's extra expenses for Inspection, engineering services, administrative costs, and Interim excess operating costs for each day that expires after the associated Contract Time.

- 6.6 In addition to the liquidated damage amounts set forth in paragraph 6.5 above, Contractor agrees to pay Department's additional actual damages arising out of the types of expenses itemized below for each day that expires after each of the Contract Times specified in paragraph 6.1 above for Completion of each of the designated parts of the Work until each of the designated parts of the Work achieves the specified completion. These actual damages are additive and shall equal Department's expenditures for costs other than those itemized in paragraph 6.5, including, but not limited to, delay damage settlements or awards related to other separate contracts, delay penalties or fines imposed by regulatory agencies, contract damage and loss of use, excess financing costs, and professional fees and related expenses incurred thereto.

ARTICLE 7 - Alterations and Omissions

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

ARTICLE 8 - Determinations as to Variances

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

ARTICLE 9 - Payment Procedures

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

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

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

- 9.1.1 Prior to Substantial Completion of the Work, progress payments will be made less five percent (5%) the aggregate of payments (i.e. retainage) previously made and less an amount necessary to satisfy any claims, liens, or judgments against Contractor which have not been suitably discharged.
- 9.2 **Payment upon substantial completion.** When the work or major portions thereof, as contemplated in the Contract Documents, is substantially completed, Contractor shall submit to Department, an Application for Payment in accordance with the General Conditions for the remaining amount of the contract balance or amount due for that major portion completed. Department will pay the remaining Contract balance, or amount due for that major portion completed, less two times the value of any remaining items to be completed and an amount necessary to satisfy any claims, liens, judgments against Contractor which have not been suitably discharged. Payment for remaining items will be made upon their completion.
- 9.3 **Final Payment.** Upon final completion of the physical Work and acceptance of the Work in accordance with the General Conditions, Department shall pay the remainder of the Contract Price as recommended by Engineer.

ARTICLE 10 - No Estimate on Contractor's Noncompliance

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

ARTICLE 11 - Delays, Inefficiencies, and Interference

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

- 1) Contractor further agrees that it has included in its bid prices for the various items of the contract any additional costs for delays, inefficiencies, or interferences affecting the performance or scheduling of contract work caused by, or attributable to, the following instances:
 - a) The work or the presence on the Site of any third party, including but not limited to that of other contractors or personnel employed by the State, or by other public bodies, by railroad, transportation or utility companies or corporations, or by private enterprises, or any delay in progressing such work by any third party.
 - b) The existence of any facility or appurtenance owned, operated, or maintained by any third party.
 - c) The act, or failure to act, of any other public or governmental body, including, but not limited to, approvals, permits, restrictions, regulations or ordinances.
 - d) Restraining orders, injunctions, or judgments issued by a court.
 - e) Any labor boycott, strike, picketing or similar situation.
 - f) Any shortages of supplies or materials required by the contract work.

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

ARTICLE 12 - Postponement, Suspension or Termination

- 12.1 Department shall have the right to postpone, suspend or terminate this Contract in whole or in part for the convenience of Department. If, after termination for cause of Contractor it is determined that no cause existed for termination of Contractor, such termination shall be deemed to have been made for the convenience of Department.
- 12.2 If this Contract is terminated by Department for convenience or cause, Department shall make payment on an equitable basis for all work performed in accordance with the Contract Documents prior to termination in accordance with paragraphs 12.3 and 12.4 below.
- 12.3 If this contract is terminated for cause, no payment shall be made for anticipated profit on unperformed work or services. Additionally, Department may adjust any payment due to Contractor at the time of termination to account for any additional costs to Department because of Contractor's default.
- 12.4 If this contract is terminated for convenience, payment shall be made for any services rendered and expenses incurred prior to the termination, in addition to termination settlement costs reasonably incurred by Contractor which had become firm prior to the termination.
- 12.5 Upon termination of this Contract under this Agreement, Department may take over the work or may award or negotiate a contract with another party to complete work required by these Contract Documents.

ARTICLE 13 - Completion of Physical Work and Final Acceptance

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

Mr. Gerard W. Burke, Section Chief
NYSDEC - Division of Environmental Remediation
Section A, Remedial Bureau E
625 Broadway, 12th Floor
Albany, New York 12233-7017

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

If Department accepts Contractor's date of completion of physical Work, Department's final acceptance of work shall be as of that date.

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

ARTICLE 14 - Final Payment

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

ARTICLE 15 - Disposition of Documents and Data

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

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

ARTICLE 16 - Applicable Law; Jurisdiction; Service of Legal Process

Contractor agrees:

- 16.1 That this Agreement is subject to and governed by all applicable federal and New York State law.
- 16.2 To procure all necessary licenses and permits.
- 16.3 To voluntarily and irrevocably submit to the jurisdiction of a New York State Court of competent jurisdiction, to resolve any dispute or controversy arising out of this Contract.
- 16.4 That the venue of any action at law or in equity commenced against Department arising out of a Project in one of Department's regions, shall be in the county in that Region where Department regional headquarters is located.
- 16.5 That the service of legal process or any notices in connection with a dispute or controversy arising out of this Contract, by United States registered mail, postage prepaid, addressed to the Designated representative of Department at the address stated in the Contract. Documents shall constitute good and valid service of process upon Engineer.
- 16.6 To waive any defense based on or alleging lack of jurisdiction, improper venue, or invalid service, if there is compliance with paragraphs 16.3 and 16.4 in this Article.
- 16.7 This Contract may be presented in court as conclusive evidence of the foregoing agreement.

ARTICLE 17 - Sales and Use Tax Exemption

Contractor represents that this project has been bid in such a manner that Department has full advantage of available exemptions from sales and compensating use taxes. Accordingly, Contractor agrees to make all payment requests in a manner which affords Department full advantage of such exemptions. Further, Contractor agrees to

complete and to require all subcontractors and material men to complete a Contractor Exempt Purchase Certificate in the name of the New York State Department of Environmental Conservation, which shall be furnished to all persons, firms or corporations from whom they purchase materials, equipment or supplies which are tax exempt by reason of the fact that they will be sold to Department, or will be used as an integral component in the construction, rehabilitation, or improvement of any structure of building required by the Contract Documents. Contractor agrees to maintain and keep, and to contractually require all subcontractors and material men to maintain and keep, records relating to the tax exemption of material, equipment and Supplies for a period of six years. The six year period shall commence to run as of the date of final payment.

ARTICLE 18 - Effective Date

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

ARTICLE 19 - Contract Price

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

Bid

\$ _____

Plus change order(s)

CONTRACT NUMBER: D008535

IN WITNESS WHEREOF, representatives of the Department and the Contractor have executed this Contract on the day and year written beneath their respective signatures. The signatory for the Department provides the following Agency Certification: "In addition to the acceptance of this contract, I also certify that original copies of this signature page will be attached to all other exact copies of this contract."

FOR DEPARTMENT

By: _____

Title: _____

Date: _____

FOR CONTRACTOR

By: _____

Title: _____

Date: _____

Approved as to Form:

By: _____

For Attorney General

Date: _____

Approved:

**Thomas P. DiNapoli
State Comptroller**

By: _____

Date: _____

This contract is not effective until it is approved by the State Comptroller and filed in his office (Section 112, State Finance Law).

(CORPORATE ACKNOWLEDGMENT WITH SEAL)

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

On the ____ day of _____, 20 ____, before me personally came _____, to me known, who being duly sworn, did depose and say that (s)he resides in _____, New York; that (s)he is _____ (*title*) of _____ (*firm*) the corporation described in and which executed the above instrument; that (s)he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation and that (s)he signed his(her) name thereto by like order.

Seal

Notary Public

(CORPORATE ACKNOWLEDGMENT WITHOUT SEAL)

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

On the ____ day of _____, 20 ____, before me personally came _____, to me known, who being duly sworn, did depose and say that (s)he resides in _____, New York; that (s)he is an officer of _____ (*firm*); namely, the _____ (*title*) of _____ (*firm*); that (s)he is authorized by the governing body of said corporation to sign contracts; and that (s)he did sign the foregoing instrument on behalf of, and with authority to bind said corporation.

Notary Public

(CO-PARTNERSHIP ACKNOWLEDGMENT)

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

On the ____ day of _____, 20 ____, before me personally came _____, to me known and known to me to be a member of _____, the firm described in and which executed the foregoing instrument, and (s)he acknowledged to me that (s)he subscribed the name of said firm thereto on behalf of said firm for the purpose therein mentioned.

Seal

Notary Public

(INDIVIDUAL ACKNOWLEDGMENT)

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

On the ____ day of _____, 20 ____, before me personally came _____, to me personally known, and known to me to be the individual described in, and who executed the foregoing instrument, and (s)he duly acknowledged to me that (s)he executed the same.

Seal

Notary Public

SECTION VII

Appendix A and Appendix B

STANDARD CLAUSES FOR NYS CONTRACTS

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

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

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

3. COMPTROLLER'S APPROVAL. In accordance with Section 112 of the State Finance Law (or, if this contract is with the State University or City University of New York, Section 355 or Section 6218 of the Education Law), if this contract exceeds \$50,000 (or the minimum thresholds agreed to by the Office of the State Comptroller for certain S.U.N.Y. and C.U.N.Y. contracts), or if this is an amendment for any amount to a contract which, as so amended, exceeds said statutory amount, or if, by this contract, the State agrees to give something other than money when the value or reasonably estimated value of such consideration exceeds \$10,000, it shall not be valid, effective or binding upon the State until it has been approved by the State Comptroller and filed in his office. Comptroller's approval of contracts let by the Office of General Services is required when such contracts exceed \$85,000 (State Finance Law Section 163.6-a). However, such pre-approval shall not be required for any contract established as a centralized contract through the Office of General Services or for a purchase order or other transaction issued under such centralized contract.

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

5. NON-DISCRIMINATION REQUIREMENTS. To the extent required by Article 15 of the Executive Law (also known as the Human Rights Law) and all other State and Federal statutory and constitutional non-discrimination provisions, the Contractor will not discriminate against any employee or applicant for employment because of race, creed, color, sex, national origin, sexual orientation, age, disability, genetic predisposition or carrier status, or marital status. Furthermore, in accordance with Section 220-e of the Labor Law, if this is a contract for the construction, alteration or repair of any public building or public work or for the manufacture, sale or distribution of materials, equipment or supplies, and to the extent that this contract shall be performed within the State of New York, Contractor agrees that neither it nor its subcontractors shall, by reason of race, creed, color, disability, sex, or national origin: (a) discriminate in hiring against any New York State citizen who is qualified and available to perform the work; or (b) discriminate against or intimidate any employee hired for the performance of work under this contract. If this is a building service contract as defined in Section 230 of the Labor Law, then, in accordance with Section 239 thereof, Contractor agrees that neither it nor its subcontractors shall by reason of race, creed, color, national origin, age, sex or disability: (a) discriminate in hiring against any New York State citizen who is qualified and available to perform the work; or (b) discriminate against or intimidate any employee hired for the performance of work under this contract. Contractor is subject to fines of \$50.00 per person per day for any violation of Section 220-e or 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 nor the employees of its subcontractors may be required or permitted to work more than the number of hours or days stated in said statutes, except as otherwise provided in the Labor Law and as set forth in prevailing wage and supplement schedules issued by the State Labor Department. Furthermore, Contractor and its subcontractors must pay at least the prevailing wage rate and pay or provide the prevailing supplements, including the premium rates for overtime pay, as determined by the State Labor Department in accordance with the Labor Law. Additionally, effective April 28, 2008, if this is a public work contract covered by Article 8 of the Labor Law, the Contractor

understands and agrees that the filing of payrolls in a manner consistent with Subdivision 3-a of Section 220 of the Labor Law shall be a condition precedent to payment by the State of any State approved sums due and owing for work done upon the project.

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

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

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

10. RECORDS. The Contractor shall establish and maintain complete and accurate books, records, documents, accounts and other evidence directly pertinent to performance under this contract (hereinafter, collectively, "the Records"). The Records must be kept for the balance of the calendar year in which they were made and for six (6) additional years

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

11. IDENTIFYING INFORMATION AND PRIVACY NOTIFICATION.

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

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

12. EQUAL EMPLOYMENT OPPORTUNITIES FOR MINORITIES AND WOMEN.

In accordance with Section

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

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

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

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

Contractor will include the provisions of "a", "b", and "c" above, in every subcontract over \$25,000.00 for the construction, demolition, replacement, major repair, renovation, planning or design of real property and improvements thereon (the "Work") except where the Work is for the beneficial use of the Contractor. Section 312 does not apply to: (i) work, goods or services unrelated to this contract;

or (ii) employment outside New York State. The State shall consider compliance by a contractor or subcontractor with the requirements of any federal law concerning equal employment opportunity which effectuates the purpose of this 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 comply with all duly promulgated and lawful rules and regulations of the Department of Economic Development's Division of Minority and Women's Business Development pertaining hereto.

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

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

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

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

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

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

law will be the responsibility of the contractor to establish to meet with the approval of the State.

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

19. 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 business operations in Northern Ireland in accordance with the MacBride Fair Employment Principles (as described in Section 165 of the New York State Finance Law), and shall permit independent monitoring of compliance with such principles.

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

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

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

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

NYS Department of Economic Development
Division of Minority and Women's Business Development
633 Third Avenue
New York, NY 10017
212-803-2414
email: mwbecertification@esd.ny.gov
<http://esd.ny.gov/MWBE/directorySearch.html>

The Omnibus Procurement Act of 1992 requires that by signing this bid proposal or contract, as applicable,

Contractors certify that whenever the total bid amount is greater than \$1 million:

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

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

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

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

21. RECIPROCITY AND SANCTIONS PROVISIONS.

Bidders are hereby notified that if their principal place of business is located in a country, nation, province, state or political subdivision that penalizes New York State vendors, and if the goods or services they offer will be substantially produced or performed outside New York State, the Omnibus Procurement Act 1994 and 2000 amendments (Chapter 684 and Chapter 383, respectively) 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 NYS Department of Economic Development for a current list of jurisdictions subject to this provision.

22. COMPLIANCE WITH NEW YORK STATE INFORMATION SECURITY BREACH AND NOTIFICATION ACT.

Contractor shall comply with the provisions of the New York State Information Security Breach and Notification Act (General Business Law Section 899-aa; State Technology Law Section 208).

23. COMPLIANCE WITH CONSULTANT DISCLOSURE LAW.

If this is a contract for consulting services, defined for purposes of this requirement to include analysis, evaluation, research, training, data processing, computer programming, engineering, environmental, health, and mental health services, accounting, auditing, paralegal, legal or similar services, then, in accordance with Section 163 (4-g) of the State Finance Law (as amended by Chapter 10 of

the Laws of 2006), the Contractor shall timely, accurately and properly comply with the requirement to submit an annual employment report for the contract to the agency that awarded the contract, the Department of Civil Service and the State Comptroller.

24. PROCUREMENT LOBBYING. To the extent this agreement is a "procurement contract" as defined by State Finance Law Sections 139-j and 139-k, by signing this agreement the contractor certifies and affirms that all disclosures made in accordance with State Finance Law Sections 139-j and 139-k are complete, true and accurate. In the event such certification is found to be intentionally false or intentionally incomplete, the State may terminate the agreement by providing written notification to the Contractor in accordance with the terms of the agreement.

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

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

APPENDIX B
(For DER Superfund/BOA Contracts)
Standard Clauses for All New York State Department
of Environmental Conservation Contracts

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

I. Postponement, suspension, abandonment or termination by the Department:

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

II. Indemnification and 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 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.

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.

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

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

(c) Remedies - The Department may terminate this contract in whole or in part, if it deems such termination

necessary to avoid an organizational or personal conflict of interest, or an unauthorized disclosure of information. If the Contractor fails to make required disclosures or misrepresents relevant information to the Department, the Department may terminate the contract, or pursue such other remedies as may be permitted by the terms of Clause I of this Appendix or other applicable provisions of this contract regarding termination.

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

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

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

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

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

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

IV. **Requests for Payment** All requests for payment

by the Contractor must be submitted on forms supplied and approved by the Department. Each payment request must contain such items of information and supporting documentation as are required by the Department, and shall be all-inclusive for the period of time covered by the payment request.

V. Compliance with Federal

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

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

VII. 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 required to make good faith efforts to subcontract at least ____% of the dollar value of this contract to Minority Owned Business Enterprises (MBEs) and at least ____% of such value to Women Owned Business Enterprises (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 individual to review decisions is:

(Name and Title)

(Address)

(Telephone)

The Chair of the Contract Review Committee is:

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

(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:

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

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

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

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:

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

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

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

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

(c) In the event that an action at law or in equity is commenced against the Department arising out of a claim that the Department's use of any item or material pursuant to or resulting from this Contract infringes any patent, copyright or proprietary right, and such action is forwarded by the Department to the Contractor for defense and indemnification pursuant to this Article, the Department shall copy all pleadings and documents forwarded to the Contractor together with the forwarding correspondence and a copy of this Contract to the Office of the Attorney General of the

State of New York. If upon receipt of such request for defense, or at any time thereafter, the Contractor is of the opinion that the allegations in such action, in whole or in part, are not covered by the indemnification set forth in this Article, the Contractor shall immediately notify the Department and the Office of the Attorney General of the State of New York in writing and shall specify to what extent the Contractor believes it is and is not obligated to defend and indemnify under the terms and conditions of this Contract. The Contractor shall in such event protect the interests of the Department and State of New York and secure a continuance to permit the State of New York to appear and defend its interests in cooperation with Contractor as is appropriate, including any jurisdictional defenses which the Department and State shall have.

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

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

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.

SECTION VIII

General Conditions

ARTICLE 1 - Preliminary Matters

Copies of Documents:

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

Preconstruction Conference:

- 1.2 No later than twenty calendar days after the Effective Date of the Agreement, but before Contractor starts the Work, a conference will be held on a date and at a location set by Department to:
 - 1.2.1 Review, item by item, the requirements of this Article;
 - 1.2.2 Review the qualifications of Contractor's resident superintendent and the qualifications of any Subcontractors and Suppliers of Contractor;
 - 1.2.3 Discuss Contractor's plans for complying with the requirements of Article 5 of the General Conditions;
 - 1.2.4 Formalize procedures for processing of Administrative Agreements, Payment Applications, Shop Drawings and other submittals, Change Orders and Proposed Change Orders, and Contractor requests for clarifications and interpretation of Contract Documents;
 - 1.2.5 Establish a working understanding among the parties as to the Work; and
 - 1.2.6 Discuss any conflicts, errors or discrepancies that Contractor has discovered by review of the Contract Documents.

Commencement of Contract Time and Start of Work at Site:

- 1.3 Before starting, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures shown thereon and all applicable field measurements. Contractor shall immediately report in writing to Engineer any conflict, error or discrepancy which Contractor may discover and shall obtain a written interpretation or clarification from Engineer before proceeding with any Work affected thereby.
- 1.4 Before a Contractor may commence Work on the site but no later than 10 calendar days after Notice of Award, Contractor shall submit to Engineer for review and acceptance:
 - 1.4.1 An interim progress schedule indicating Contractor's anticipated schedule for the Work for the first three months in detail and for the remainder of the Work in summary form. If Contractor doesn't intend to perform Work on the date when Contract Time commences, Contractor must notify

Department as soon as possible in writing when work will commence so inspection services can be scheduled to minimize cost to the Department. The interim progress schedule shall include the information specified in paragraphs 1.4.2 and 1.4.3.

- 1.4.2 An interim schedule of Shop Drawing, material, soil characteristic, sample collection and analytical test result submissions covering the various stages of Work detailed in the first three months of the interim Progress Schedule; and
- 1.4.3 An interim schedule of values on the form provided by Engineer covering the various stages of Work detailed in the first three months of the interim Progress Schedule. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work which will be confirmed in writing by Contractor at the time of submission.

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

Finalizing Interim Schedules:

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

ARTICLE 2 - Contract Documents: Intent, Amending, Reuse

Intent:

- 2.1 The Contract Documents comprise the entire agreement between Department and Contractor concerning the Work. The Contract Documents are complementary; what is called for by one is as binding as if called for by all.
- 2.2 The Contract Documents describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents. Any work, materials or equipment that may be necessary to satisfactorily complete the contract must be supplied whether or not specifically called for. When words which have a well-known technical or trade meaning are used to describe Work, materials or equipment, such words shall be interpreted in accordance with that meaning. Reference to standard specifications, manuals or codes of any technical society, organization or association, or to the Laws of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard specification, manual, code or Laws in effect at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids), even though reference may be specifically made to an earlier standard. If there is any conflict or discrepancy between standard specifications, manuals, or codes of any technical society, organization or association, or between Laws, the Engineer shall determine which shall apply and shall be binding on Contractor. Contractor

has a duty to comply with the latest standard specification, manual, code, or Laws in effect at the time of opening of bids, without any increase in Contract Price or extension in Contract Time. Clarifications and interpretations of the Contract Documents shall be issued by Engineer as provided in paragraph 8.4. However, no provision of any referenced standard specification, manual or code (whether or not specifically incorporated by reference in the Contract Documents) shall be effective to change the duties and responsibilities of Department, Contractor or Engineer or any of their consultants, agents or employees from those set forth in the Contract Documents. If there is any conflict or discrepancy between the provisions of the Contract Documents and any such referenced standard specification, manual, or code of any technical society, organization or association, the provisions of the Contract Documents will take precedence.

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

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

- 2.3.1 First, in accordance with the order of preference stated in the conflicting parts of the Contract Documents as provided by Article 4 of the Agreement;
- 2.3.2 In all cases, figured dimensions shall govern over scaled dimensions, but Work not dimensioned shall be as directed, and Work not particularly shown, identified, sized, or located shall be the same as similar parts that are shown or specified. Detail Drawings shall govern over general Drawings, larger scale Drawings take precedence over smaller scale Drawings, Change Order or Proposed Change Order Drawings govern over Contract Drawings, and approved Shop Drawings govern over Contract Drawings. Specifications shall govern as to products, execution and workmanship, and Drawings shall govern as to locations, dimensions, or quantities to be furnished. Further, in all cases where specifications, notes or details in two or more Specifications, or in two or more Drawings, conflict, the requirement calling for the larger quantities, or higher quality product or workmanship shall prevail and be binding on Contractor, unless otherwise directed by Engineer.

Amending and Supplementing Contract Documents:

- 2.4 The Contract Documents may be amended to provide for additions, deletions and revisions in the Work or to modify the terms and conditions thereof in one or more of the following ways as defined in Section 2, "Terms and Definitions."
- 2.4.1 An Administrative Agreement,
- 2.4.2 A Change Order (pursuant to Article 9), or
- 2.4.3 A Proposed Change Order signed by Department (pursuant to Article 9).

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

- 2.5 In addition, the requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, not involving an adjustment in Contract Price or Contract Time, in one or more of the following ways:
- 2.5.1 A Field Order (pursuant to Article 8.4),
 - 2.5.2 Engineer's approval of a Shop Drawing or sample (pursuant to Article 5.23 thru 5.29), or
 - 2.5.3 Engineer's written interpretation or clarification (pursuant to Article 8.3).

Reuse of Documents:

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

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

Availability of Lands:

- 3.1 As indicated in the Contract Documents, Department shall make available the lands upon which the Work is to be performed, rights-of-way and easements for access thereto, and such other lands as are designated for the use of Contractor. Easements or other authority for permanent structures or permanent changes in existing facilities will be obtained and paid for by Department, unless otherwise provided in the Contract Documents. If Contractor believes that any delay in Department's furnishing of these lands or easements entitles Contractor to an extension of the Contract Time, Contractor may make a request therefore as provided in Article 10 of the General Conditions. If Department and Contractor are unable to agree concerning such an extension, a claim may be made as provided in Articles 9, 10 and 11 of the General Conditions.
- 3.2 Any lands and easements for access not furnished by Department which Contractor deems necessary for the Work, including but not limited to requirements for temporary construction facilities, access and egress, or for storage of materials, shall be provided by Contractor at no increase in Contract Price nor extension in Contract Time. Contractor shall obtain all necessary permits and written approvals from the appropriate jurisdictional agencies and property owner(s) for use of premises not furnished by Department as described above, and for the use of all off-site areas needed for the Work including but not limited to off-site borrow pits, and waste and disposal areas. If permits and approvals do not specify the required treatment, if any, of said areas during and at the completion of the Work, the Progress Schedule must describe such treatment. Copies of all permits and approvals applicable to said areas shall be filed with the Engineer before utilization of any said areas. Contractor shall have sole responsibility for any property damage or personal injuries occasioned by an act or omission of Contractor in respect to all lands, and easements obtained pursuant to this paragraph.
- 3.3 Engineering survey horizontal and vertical control reference points for construction which are specified in the Contract Documents or which in Engineer's judgment are necessary to enable Contractor to proceed with the Work, will be provided by Department. Contractor shall be responsible for laying out the Work using such reference points, shall protect and preserve the established reference points; and shall make no changes or relocations without the prior written approval of Engineer. Contractor shall notify Engineer in writing whenever any reference point is lost or destroyed or requires relocation because of necessary changes in grades

or locations; and shall be responsible for the accurate replacement or relocation of such reference points by a professionally qualified surveyor at Contractor's expense.

Physical Conditions and Existing Structures:

- 3.4 **Explorations and Reports:** Reference is made to the Supplementary Bidding Information and Requirements for identification of those reports of explorations and tests of conditions at the site that have been utilized by Design Engineer in preparation of the Contract Documents; and for identification of those drawings of physical conditions in or relating to existing surface structures (except Underground Facilities referred to in paragraphs 3.6 and 3.7) which are at or contiguous to the site that have been utilized by Design Engineer in preparation of the Contract Documents. Contractor may rely upon the accuracy of the technical data contained in such reports, as to the location where and at the point in time when data was obtained, but not upon non-technical data, interpretations or opinions contained therein or for the completeness thereof for Contractor's purposes. Except as indicated in the Bidding Information and Requirements Section and in paragraphs 3.11 and 3.12, Contractor shall have full responsibility with respect to subsurface conditions which Contractor could reasonably expect or foresee by reason of the technical data and Contractor's inspection of the site, and with respect to physical conditions in or relating to such surface structures.

- 3.5 Intentionally left blank.

Physical Conditions - Underground Facilities Shown or Indicated:

- 3.6 The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the site is based on information and data furnished to the Design Engineer by the owners of such Underground Facilities or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:
- 3.6.1 Department shall not be responsible for the accuracy or completeness of any such information or data; and,
- 3.6.2 Contractor shall have responsibility: a) for reviewing and checking all such information and data; b) for locating all Underground Facilities shown or indicated in the Contract Documents as to depth and alignment in advance of installations, backfilling or other work required by the Contract Documents; c) for coordination of the Work with the owners of such Underground Facilities during construction, d) for the safety and protection thereof, and e) for repairing any damage thereto resulting from the Work. The cost of and the time required to perform the responsibilities outlined in this paragraph will be considered as having been included in the Contract Price and in Contractor's schedule for the performance of the Work within the prescribed Contract Time(s) and Contractor shall not be entitled to additional payment therefor.
- 3.6.3 Contractor shall excavate and uncover all Underground Facilities to be crossed or paralleled by the proposed Work a sufficient time in advance to permit change in line and grade of the existing Underground Facility or the proposed Work if the location of the existing Underground Facility should interfere with the Work. Further, a reasonable interval of time, up to thirty days, will be allowed to Engineer and Department in order to resolve issues relating to Underground Facilities shown or indicated which are determined to interfere with the Work. This interval of time will be considered as having been included in the Contract Price and in Contractor's schedule for the performance of the Work within the Contract Time unless otherwise agreed to in writing by Department. If more than thirty days is consumed in resolving such issues, no claim will be allowed unless: 1) Contractor has given the notice required in paragraph 3.7 of the General Conditions, and

2) within fifteen days thereafter, Contractor has submitted to Department a written Proposed Change Order claim in accordance with the requirement of Article 9, 10 and 11 of the General Conditions and the Standard Specifications.

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

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

Underground Facilities Not Shown or Indicated:

3.7 If an Underground Facility is uncovered or revealed at or contiguous to the site which was not shown or indicated in the Contract Documents and which Contractor could not reasonably have been expected to be aware of, Contractor shall promptly after learning thereof and before performing any Work affected thereby (except in an emergency as permitted by paragraph 5.22), identify the owner of such Underground Facility and give written notice of such uncovering to that owner and to Engineer and Department. Engineer and Department will promptly review the situation to determine the extent to which the Contract Documents should be modified to reflect and document the consequences of the existence of the Underground Facility, and take prompt action to amend the Contract Documents to the extent necessary. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility as provided in paragraph 5.20.

3.7.1 Contractor shall schedule excavation and uncovering Work to begin a sufficient time in advance to allow Engineer's review and the possible amendment to the Contract Documents if unanticipated Underground Facilities are discovered as described in paragraph 3.7. Further, up to thirty days, will be allowed to Engineer and Department to resolve issues and problems related to a report of newly discovered Underground Facilities, not shown or indicated. This interval of time will be considered as having been included in the Contract Price and in Contractor's schedule for the performance of the Work within the Contract Time and Contractor shall not be entitled to any additional payment therefor.

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

Report of Differing Site Conditions:

3.8 If Contractor believes that any subsurface or physical condition uncovered or revealed at the site renders materially inaccurate any information in the Contract Documents or technical data on which Contractor was entitled to rely as provided in paragraph 3.4 or 3.6, Contractor shall, immediately after becoming aware thereof and before performing any Work in connection therewith (except in an emergency as permitted by paragraph 5.22), notify Department and Engineer in writing about the inaccuracy or difference to allow Department and Engineer to make any necessary changes to minimize the cost of the Work.

- 3.9 **Engineer's and Department's Review:** Engineer and Department will promptly review the pertinent conditions, determine the necessity of obtaining additional explorations or tests with respect thereto, and notify Contractor in writing of findings and conclusions. Immediately thereafter, Department shall perform or cause to be performed any necessary or appropriate additional investigations and tests with respect to the newly discovered conditions and furnish copies to Contractor.
- 3.10 **Possible Document Change:** If Engineer concludes that there is a material error in the Contract Documents or that because of newly discovered conditions a change in the Contract Documents is required, a Proposed Change Order or a Change Order will be issued as provided in Article 9 to reflect and document the consequences of the inaccuracy or difference, provided Department has not exercised its right to suspend or terminate under Article 14 of Section 8, "General Conditions", Appendix B, or Article 12 of Section 6 "Agreement."
- 3.11 **Possible Contract Adjustment:** An increase or decrease in the cost of, or the time required to perform any part of the Work, whether or not affected by such differing conditions, and a corresponding adjustment in Contract Price or Contract Time in accordance with Articles 9, 10 and 11 of the General Conditions, or any combination thereof, may be allowable to the extent that they are attributable to any such inaccuracy or difference which Contractor could not reasonably have been expected to anticipate or be aware of. If Department and Contractor are unable to agree as to the adjustment in Contract Price or Contract Time, or if Engineer concludes that there is not a material error in the Contract Documents, or that the uncovered or revealed condition could reasonably have been anticipated by Contractor, and Contractor disagrees, a claim may be made therefor as provided in Articles 9, 10 and 11 of the General Conditions.
- 3.12 **No claim by Contractor under paragraph 3.11 of the General Conditions will be allowed unless:** 1) Contractor has given the written notice required in paragraph 3.8 of the General Conditions, and 2) within fifteen days thereafter, Contractor has submitted to Department a written Proposed Change Order substantiating in detail Contractor's proposed adjustments in accordance with the requirements of Articles 9, 10 and 11 of the General Conditions, and the Standard Specifications.
- 3.13 **Responsibilities and Allowances:** Contractor shall schedule excavation and uncovering of Work to begin a sufficient time in advance to allow Engineer's review as described in paragraph 3.9, and Department's issuance of a Change Order or a Proposed Change Order as described in paragraph 3.10 in connection with a report of differing conditions. Further, a reasonable interval of time, not less than thirty days will be allowed to Engineer and Department for those functions required to resolve any report of differing conditions. This interval of time will be considered as having been included in the Contract Price and in Contractor's schedule for the performance of the Work within the Contract Time. If more than thirty days is used, no claim will be allowed unless (1) Contractor has given the written notice required in paragraph 3.8 of the General Conditions, and (2) within fifteen days thereafter, Contractor has submitted to Department a written Proposed Change Order claim in accordance with the requirements of Articles 8, 9, 10 and 11 of the General Conditions, and the Standard Specifications.

ARTICLE 4 - Bonds and Insurance

Performance and Other Bonds:

- 4.1 Contractor shall furnish performance, labor and material payment Bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all Contractor's obligations under the Contract Documents. These Bonds shall remain in effect until at least one year after the date when final payment is made, unless otherwise provided by Law or by the Contract Documents. Contractor shall also

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

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

Insurance - All Types:

4.2 Contractor shall purchase and maintain at its own expense the specific coverages and types of insurance set forth in this Article 4.2 through 4.3.3.

4.2.1 Contractor shall not commence or continue to perform any work unless and until Contractor has in full force and effect all required insurance, and until Contractor has submitted true copies of all endorsements (i.e., amendments) and a copy of the Certificate of Insurance attached herein to Department evidencing the specific insurance coverage required. No payment for work performed shall become due and payable unless current certificates and endorsements have been received.

4.2.2 Contractor shall not permit any Subcontractor, Supplier or other person or organization to perform Work unless the following insurance requirements at a minimum have been complied with by such Subcontractor, Supplier or other person or organization and proof of the issuance of all policies of insurance has been delivered to Contractor.

4.2.2.1 Comprehensive general liability insurance providing coverage as herein required of Contractor including Contractors' Protective Liability Insurance, Completed Operations Insurance, Products Liability Insurance and Contractual Liability Insurance. Insurance must be project specific or contain an endorsement (i.e., amendment) in writing (including print or stamp) added to and made part of the insurance contract for the purpose of changing the original terms such that the general aggregate limit applies separately to each of Contractor's projects away from premises owned by or rented to Contractor.

Commercial General liability insurance with a limit of not less than \$1,000,000 each occurrence. Such liability shall be written on the Insurance Service Office's (ISO) liability arising from premises operations, independent contractors' operations, products-completed operations, broad form property damage, personal and advertising injury, cross liability coverage, liability assumed in a contract (including tort liability of another assumed in a contract) and explosion, collapse and underground coverage.

- Products and Completed Operations Coverage shall include a provision that coverage will extend for a period of at least twelve (12) months after the date of final completion and acceptance by the Department of all of Contractor's work.

- 4.2.2.2 Comprehensive Business automobile liability insurance with a limit of not less than \$1,000,000 with Department and Engineer listed as an additional insured.
- 4.2.2.3 Policy covering the obligations of the Contractor in accordance with the provisions of the Worker's Compensation Law, Employers Liability, and Disability Benefits This contract shall be void and of no effect unless the Contractor procures the Workers Compensation policy and maintains it until final acceptance of the work.

The only forms which are accepted as proof of Workers' Compensation and Disability Insurance are as follows:

<u>Form #</u>	<u>Form Title</u>
C-105.2	Certificate of Worker's Compensation Insurance
CE-200	Certificate of Attestation of Exemption – (no employees)
U-26.3	State Insurance Fund Version of the C-105.2 form
SI-12	Certificate of Worker's Compensation Self-Insurance
DB-120.1	Certificate of Disability Benefit Insurance
DB-155	Certificate of Disability Benefit Self-Insurance
GSI-105.2	Certificate of Participation in Worker's Group Comp Self-Insurance

An ACORD form is not acceptable proof of Worker's Compensation coverage All of the above referenced forms, except CE-200,SI-I2 & DB-155 must name: The New York State Department of Environmental Conservation, 625 Broadway, Albany, NY 12233, as the Entity Requesting Proof of Coverage (Entity being listed as the Certificate holder). Additional information can be obtained at the Worker's Compensation website:

<http://www.wcb.state.ny.us/content/main/Employers/Employers.jsp>

- 4.2.2.4 Owner's (Department's) and Contractor's Protective Liability Insurance issued to and in the name of The People of the State of New York, the Department, and the Engineer with limits not less than \$1,000,000 per occurrence.
- 4.2.2.5 Pollution Liability Insurance: If the work involves abatement, removal, repair, replacement, enclosure, encapsulation and/or disposal of any hazardous material or substance, the Contractor shall maintain in full force and effect throughout the Term, pollution legal liability insurance with limits of not less than \$1,000,000, providing coverage for bodily injury and property damage, including loss of use of damaged property or of property that has not been physically injured. Such policy shall provide coverage for actual, alleged or threatened emission, discharge, dispersal, seepage, release or escape of pollutants or in the investigation, settlement or defense of any claim, suit, or proceedings against the State of New York and/or the Department and/or the Engineer, arising from Contractor's work and list Department as an additional insured. Claims made policies shall have a one (1) year tail beyond the date Department determines physical completion.

- If coverage is written on claims-made policy, the Contractor warrants that any applicable retroactive date precedes the effective date of this Contract; and that continuous coverage will be maintained, or an extended discovery period exercised, for a period of not less than two years from the time work under this Contract is completed.
- 4.2.2.6 Errors and Omissions: If providing professional services, Contractor shall maintain, or if subcontracting professional services, shall certify that its subcontractor maintain errors and omissions liability insurance with a limit not less than \$1,000,000 per loss.
- Such insurance shall apply to professional errors, acts or omissions arising out of the scope of services covered by this contract and may not exclude bodily injury, property damage, pollution or asbestos related claims, testing, monitoring, measuring or laboratory analyses.
 - If coverage is written on a claims-made policy, the Contractor warrants that any applicable retroactive date precedes the effective date of this contract; and that continuous coverage will be maintained, or an extended discovery period exercised for a period not less than two years from the time the work under this contract is completed.
- 4.2.3 Insurance shall be issued by carriers licensed to do business in New York State. Each insurance carrier must be rated at least "A-" Class "VII" in the most recently published Best's Insurance Report. If during the term of the policy, a carrier's rating falls below "A-" Class VII, the insurance must be replaced no later than the renewal date of the policy, with an insurer acceptable to the Department and rated at least "A-" Class VII in the referenced report.
- 4.2.4 Acceptance by Department of the insurance provided by Contractor shall not relieve Contractor from liabilities, obligations, responsibilities or decrease the liabilities of Contractor hereunder. It is understood that Department does not in any way represent that the insurance or the limits of insurance specified in the Article is sufficient or adequate to protect Contractor's interests or liabilities, but are merely minima.
- 4.2.5 All insurance shall be maintained in full force and effect until the Contract has been fully and completely performed, as set forth in the Contract Documents. Completed operations insurance shall remain in effect until one year after the date of final acceptance of work under the contract, or one year after Contractor or any Subcontractor performs any work under the Contract, whichever is later. Should any coverage approach expiration during the period in which it must remain in full force and effect, it shall be renewed prior to its expiration , and a certificate again filed with Department. Also, any endorsements (i.e., amendments) which change insurance during the length of the contract shall also be submitted to Department for acceptance. All insurance policies shall require notice to Department 30 days prior to expiration, termination, or suspension of such policy, directed to the attention of Department. If any insurance provided hereunder contains an aggregate limit, the aggregate shall apply separately to this contract and shall not be less than \$2,000,000. Expiration of any coverage shall be grounds for termination of contract for cause, at the option of Department. Department may suspend or terminate this contract unless Contractor maintains in full force and effect, the types and amounts of insurance required by this contract. No later than thirty (30) days prior to the expiration or renewal date of policy the Contractor should supply replacement certificates of insurance.

- 4.2.6 Contractor shall deliver, if requested by Department, duplicate originals of each policy required by Contract Documents, as well as insurance policies of Subcontractors, in such number as Department may require, and such alternate or additional proof of coverage as Department demands. Contractor shall provide prompt, written notice to the Department and its insurer, of any claims made related to work done hereunder, in accordance with the insurance policy provisions.
- 4.2.7 Nothing contained in these insurance requirements shall be construed to limit the liability of Contractor or Contractor's insurance carriers.
- 4.3 If required by the Supplementary Conditions or Law, Contractor shall purchase and maintain at its own expense insurance otherwise deemed necessary by Department with Department listed as an additional insured.
 - 4.3.1 Where special or unusual hazards peculiar to this contract are foreseeable, Contractor shall take such steps as are necessary to insure itself against such hazards and be responsible for any damage, including water, which results from the occurrence of the hazards in connection with the performance of Work under the Contract.
 - 4.3.2 Contractor shall purchase and maintain insurance which complies with the requirements of the Flood Disaster Protection Act.
 - 4.3.3 Contractor shall maintain until the physical completion date builder's risk insurance on the Builder's Risk Completed Values Form with extended coverage, on the value of the work which shall be the contract amount. Whenever applicable, the Contractor's Interest Completed Value Form may be used. The extended coverage endorsement may include a loss deductible clause of \$100.00. Department shall be listed as an additional insured. The Builder's Risk policy shall include the following endorsement. "It is made a condition of this insurance that occupancy of the premises shall not require consent of the insurance company nor rate of adjustment."

ARTICLE 5 - Contractor's Responsibilities

Supervision and Superintendence:

- 5.1 Contractor shall supervise and direct the Work required by the contract competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be responsible for the means, methods, techniques, sequences and procedures of construction; except that Contractor shall not be responsible for the negligence of others in the design or selection of a specific means, method, technique, sequence or procedure of construction which is indicated in and required by the Contract Documents. Contractor shall be responsible to see that the finished Work conforms with the Contract Documents.
- 5.2 Contractor shall keep on the Site of the Work at all times during its progress, a competent and reliable resident superintendent, who shall not be replaced without written approval of Department. The superintendent will be Contractor's representative at the site and shall have authority to act on behalf of Contractor. All communications given to the superintendent shall be as binding as if given to Contractor.
 - 5.2.1 Department may require immediate replacement of the superintendent upon written notice for cause.
 - 5.2.2 The superintendent and similar authorized representatives of any Subcontractors as requested by Department or Engineer shall attend all meetings pertaining to the Work.

- 5.2.3 Whenever the superintendent is not present for performance of a particular part of the Work and Engineer is not able to give to Contractor, through the superintendent, information relative to an interpretation of the Contract Documents, or relative to disapproval or rejection of materials or the performance of such work, Engineer may so inform the worker in charge of such Work. Information so given shall be binding as if given to superintendent.
- 5.2.4 Contractor shall issue all communications to Department through Engineer except as provided by Contract Documents. All written correspondence to Engineer shall be copied to Department.

Labor, Working Hours, Materials and Equipment:

- 5.3 Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall, at all times, employ labor and equipment which shall be sufficient to prosecute the several classes of work to full completion in the manner and time specified. All workers must have sufficient skill, experience and Health and Safety training required to perform properly the work assigned them. All workers engaged on special or skilled work shall have had sufficient experience in such work to perform properly and satisfactorily including operation of any equipment involved. Any person employed by Contractor or Subcontractor whom the Engineer or Department may determine incompetent or unfit to perform the work shall be at once discharged or reassigned and not again be employed on Work in connection with this Contract. The Contractor may request review by Department regarding the discharge of such employee(s). Contractor shall at all times maintain good discipline and order at the site. Except in connection with the safety or protection of persons or the Work or property at the site or adjacent thereto, and except as otherwise indicated in the Contract Documents, all Work at the site shall be performed during normal working hours as defined in paragraph 5.3.1 below, and Contractor shall not permit overtime Work or the performance of Work during hours other than normal Working hours without: a) prior written notice to Engineer; b) Department's written consent; and c) written approval from the New York State Department of Labor as required by law.
- 5.3.1 Normal working hours shall be defined as a normal working schedule which a) does not exceed eight hours per working day, occurring between the hours set forth at the pre-construction conference, or if none are set forth, beginning no earlier than 7:00 a.m. and ending at no later than 5:00 p.m.; and b) does not exceed 40 hours per week, excluding overtime Work, Work on Saturdays, Sundays, and legal holidays (New Years, Memorial Day, Independence Day, Labor Day, Thanksgiving and Christmas). Work during other than normal working hours may be scheduled by Contractor by first obtaining written permission from Department and as provided in Section 5.3. Department shall be entitled to recover extra costs incurred in providing inspection related to Work done during other than normal working hours in accordance with paragraph 5.3.5 below.
- 5.3.2 If Contractor, for convenience, voluntarily chooses to schedule Work during hours other than normal working hours at no increase in Contract Price, Contractor shall submit details of such proposed schedule with the interim Progress Schedule described in paragraph 1.6 of the General Conditions. Any Progress Schedule calling for Work outside of normal working hours shall be reviewed for acceptance by Engineer and Department and must be in accordance with the requirements of the New York State Labor Law and Articles 1.6 and 5.3 of the General Conditions.
- 5.3.3 If at any time subsequent to the submission and approval of the Progress Schedule pursuant to the General Conditions and the Standard Specifications, an event or delay not meeting the requirements for extensions in Contract Time set forth in Articles 9, 10 and 11 of the General Conditions occurs, and requires Contractor to schedule Work during hours other than normal working hours for Contractor's convenience and at no increase in Contract Price, Contractor shall submit, at least ten

working days in advance of the acceleration period, a proposed revised accelerated schedule for review by Engineer and Department. If Department accepts the revised accelerated Progress Schedule, Department will so notify Contractor in writing.

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

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

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

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

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

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

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

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

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

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

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

Adjusting Progress Schedule:

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

"Or-Equal" or Substitute Items:

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

similar and of equal substance and quality to that specified and be suited to the same use as that specified.

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

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

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

justification to reject the proposed substitute. Additional construction and/or engineering costs identified after Department's acceptance of the proposal and resulting from installation of an "or equal" or substitute shall be borne by Contractor.

Subcontractors, Suppliers and Others:

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

5.8.2 Wherever Work to be performed by Contractor or by a Subcontractor is dependent upon Work of other Subcontractor(s) or the work of separate contractor(s), then Contractor shall require such Subcontractor(s) whose Work is so dependent to:

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

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

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

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

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

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

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

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

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

5.9 Contractor shall be responsible and liable to Department and Engineer for Contractor's acts and omissions and all acts and omissions of the Subcontractors, Suppliers and other persons and organizations performing or

furnishing any of the Work under a contract with any level of Subcontractor or Supplier. Nothing in the Contract Documents shall create any contractual relationship between Department or Engineer and any such Subcontractor, Supplier or other person or organization. Department or Engineer may furnish to any Subcontractor or Supplier, to the extent practicable, evidence of the payments made to Contractor on account of specific Work done.

- 5.10 The various sections, divisions and subdivisions of the Standard and Supplementary Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade. The Standard Specifications, Supplementary Specifications, and Drawings are complementary to each other and are to be read as a whole. Anything mentioned or shown in a division of such Specifications, or Drawings or in a specific trade Drawing shall be effective as if shown in all divisions of such Specifications and in all Drawings. In addition to the requirements of paragraphs 5.24 through 5.30 of the General Conditions, shop drawings of a specific trade shall be compared to and coordinated with those from other trades by Contractor before submission to Engineer.
- 5.11 All Work performed for Contractor by a Subcontractor will be pursuant to an appropriate agreement between Contractor and the Subcontractor which specifically binds the Subcontractor to the applicable terms and conditions of the Contract Documents for the benefit of Department.

Patent Fees and Royalties:

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

Permits:

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

Laws and Regulations:

- 5.14.1 Contractor shall comply with all Laws applicable to performance of the Work. Except where otherwise expressly required by applicable Laws or Contract Documents, neither Department nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws.
- 5.14.2 If Contractor observes that the Contract Documents are at variance with any applicable Laws, Contractor shall immediately give Engineer prompt written notice thereof, and any necessary

changes will be authorized by one of the methods set forth in paragraph 2.4 and 2.5 of the General Conditions. If Contractor performs any Work knowing or having reason to know that it is contrary to such Laws, and without such notice to Engineer, Contractor shall bear all costs arising therefrom; however, it shall not be Contractor's primary responsibility to make certain that the Specifications and Drawings are in accordance with such Laws.

Taxes:

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

Use of Premises:

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

- 5.16.1 Temporary buildings (e.g., storage sheds, trailers, shops, offices) and utilities may be erected by Contractor only with the approval of Engineer and shall be built without additional expense to Department. Such temporary buildings and utilities shall remain the property of Contractor and shall be decontaminated as necessary and removed by Contractor at his expense upon completion of the Work; the buildings and utilities may be abandoned and remain at the site with the written consent of Department.
- 5.16.2 When materials are transported for performance of the Work, vehicles shall not be loaded beyond the loading capacity recommended by the manufacturer of the vehicle or prescribed by Federal, State, or local law or regulation. When it is necessary to cross curbs, sidewalks or work which is completed or underway on site, Contractor shall protect them from damage, and shall repair any damage caused.
- 5.16.3 Notwithstanding the designation of site boundaries or the indication of temporary fences or barricades, the provisions of the Contract Documents governing certain phases or portions of the Work may require that certain operations be carried out beyond the site boundaries. Trenching, utility Work, site development, landscaping, other Work, if required beyond such designated limits, shall be scheduled in such a manner as to cause or occasion a minimum of inconvenience or disturbance to or interference with the normal operation of Department, abutting owners and the public. Contractor shall obtain Department's prior approval and all necessary approvals from others, including but not limited to public authorities and utility companies for such operations, and shall conduct such operations expeditiously and restore the affected area to its original condition

immediately upon completion of such operations, unless otherwise specified in the Contract Documents.

- 5.16.4 All existing walks, roadways, paved or landscaped areas on which temporary driveways or walks are rerouted shall be restored to their original condition, immediately upon completion of the phases or portions of the Work for which such features were disturbed unless otherwise specified in the Contract Documents.
- 5.16.5 Pumping, draining and control of surface and ground water will be carried out so as to avoid endangering the Work or any adjacent facility or property, or interrupting, restricting or otherwise infringing or interfering with the use thereof, or exceeding the limits allowed by Contract Documents, or applicable Law.
- 5.17 During the progress of the Work, Contractor shall keep the Site free from accumulations of waste materials, rubbish and other debris resulting from the Work. At the completion of the Work Contractor shall remove all waste materials, rubbish and debris from and about the premises as well as all tools, appliances, construction equipment and machinery, and surplus materials, and shall leave the Site clean and ready for Department. Contractor shall restore all pavement, sidewalks, driveways, fences, shrubs, lawns, trees and any other public or private property damaged as a result of the Work under this Contract. All such replacement shall be done in accordance with the applicable specifications and no separate or extra payment will be made unless specifically provided for in the Payment Items. In all cases, said replacement shall be at least equal to the original conditions.
- 5.18 Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

As-Built Documents:

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

Health, Safety and Protection:

- 5.20 Contractor shall be responsible for initiating, maintaining and supervising all health and safety precautions and programs in connection with the Work which include but are not limited by the Contract Documents and Contractor's Health and Safety Plan. Contractor shall take all necessary precautions for the health and safety of, and shall provide the necessary protection to prevent damage, injury or loss to all employees and other persons and organizations who may be affected thereby. Contractor shall comply with all applicable Laws of any public body having jurisdiction for the health and safety of persons or property in order to protect them

from damage, injury or loss; and shall erect and maintain all necessary safeguards for such health, safety and protection. Contractor shall notify owners of Underground Facilities and utility owners when performance of the Work may affect them, and shall cooperate with them in the protection, removal, relocation and replacement of their property. In addition to any requirements imposed by Laws, Contractor shall shore up, brace, underpin, and protect as may be necessary, all foundations and other parts of all existing structures adjacent to and adjoining the site which are in any way affected by the excavations or other operations connected with performance of the Work under the Contract.

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

Emergencies:

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

Shop Drawings and Samples:

- 5.24 After checking and verifying all field measurements and after complying with applicable procedures specified in the Contract Documents, Contractor shall submit to Engineer for review and approval in accordance with the accepted schedule of Shop Drawing submissions (see paragraph 1.4, hereof) six copies of all Shop Drawings plus additional copies as required by Contractor, unless otherwise specified in the Contract Documents. All such Shop Drawings shall bear a stamp or other specific written indication that Contractor has satisfied the requirements of the Contract Documents with respect to the review of the submissions including but not limited to subparagraph 5.25 below. All submissions shall be identified as Engineer may require. The data

shown on the Shop Drawings shall be complete with respect to quantities, dimensions, specified performance and design criteria, materials and similar data to enable Engineer to review the information as required.

- 5.25 Contractor shall also submit to Engineer for review and approval with such promptness as to cause no delay in Work, all samples required by the Contract Documents. Contractor shall check all samples, shall identify them clearly as to material, Supplier, pertinent data such as catalog numbers and the use for which intended, and shall submit with them a written certification that Contractor has satisfied the requirements of the Contract Documents with respect to the review of such submissions including but not limited to subparagraph 5.25 below.
- 5.26 Before submission of each Shop Drawing or sample, Contractor shall certify that all quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers and similar data with respect thereto have been reviewed or that each Shop Drawing or sample has been coordinated with other Shop Drawings and samples and with the requirements of the Work and the Contract Documents.
- 5.27 At the time of each such submission, Contractor shall give Engineer specific written notice of each variation that the Shop Drawings or samples may have from the requirements of the Contract Documents, and, in addition, shall cause a specific notation of each such variation to be made on each Shop Drawing submitted to Engineer for review and approval.
- 5.28 Engineer will review and approve or disapprove Shop Drawings and samples in 14 days. However, Engineer's review and approval of Shop Drawings will be only for conformance with the design concept of the Project and for compliance with the information given in the Contract Documents and shall not extend to the accuracy of other matters that may be contained in the submittals, including but not limited to such matters as dimensions, quantities, performance of equipment and systems proposed by Contractor, Contractor's means, methods, techniques, sequences or procedures of construction (except where a specific means, method, technique, sequences, and procedures of construction is indicated in or required by the Contract Documents) or to safety precautions or program incident thereto, the correctness of which shall remain the sole responsibility of Contractor. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
- 5.28.1 When reviewed by Engineer, each submittal of Shop Drawings and samples will be returned to Contractor as either "Approved", "Approved as Noted", "Resubmit with Revisions", or "Disapproved." Submittals stamped as "Approved" or "Approved as Noted" will indicate Engineer's approval thereof, subject to the provisions of paragraph 5.28.
- 5.28.2 Contractor shall revise and correct Shop Drawings and samples and resubmit them to Engineer for Engineer's second review and return pursuant to paragraph 5.29. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.
- 5.28.3 Costs associated with Engineer's review and return of a Shop Drawing or sample submission other than ones submitted pursuant to paragraph 5.7 of this Section shall be borne by Contractor after the Engineer's second review. Department's charges to Contractor for additional reviews will be equal to Engineer's charges to Department under the terms of Engineer's agreement with Department. In the event Contractor fails to pay such costs within 30 days after receipt of an invoice from Department, funds will be withheld from payment requests and at the completion of the Work, a Change Order or proposed Change Order will be issued incorporating the unpaid amount, and Department will be entitled to an appropriate decrease in Contract Price.

- 5.28.4 After the Engineer's second review, delays associated with Contractor's resubmittal and Engineer's review and return of a particular Shop Drawing or sample submission shall be the responsibility of Contractor. Such delays shall not justify an increase in Contract Price nor an extension in Contract Time.
- 5.29 Engineer's review and approval of Shop Drawings or samples shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has in writing called Engineer's attention to each such variation at the time of submission as required by paragraph 5.27 and Engineer has given written approval of each such variation by a specific written notation thereof incorporated in or accompanying the Shop Drawing or sample approval; nor will any approval by Engineer relieve Contractor from responsibility for errors or omissions in the Shop Drawings or from responsibility for complying with paragraph 5.26.
- 5.30 Where a Shop Drawing or sample is required by the Specifications, any related Work performed prior to Engineer's review and approval of the pertinent submission will be the sole expense and responsibility of Contractor.

Continuing the Work:

- 5.31 Contractor shall carry on the Work and adhere to the Progress Schedule during all Claims or Disputes with Department. No work shall be delayed or postponed pending resolution of any Claims or Disputes, except as permitted by Article 14 of the General Conditions or as Contractor and Department may otherwise agree in writing.

Weather Protection:

- 5.32 Contractor shall be responsible for initiating, maintaining and supervising all weather protection precautions and programs in connection with the Work. Additional weather protection provisions, if applicable, are set forth in the Supplementary Conditions, Standard Specifications or Supplementary Specifications.

Cutting and Patching of Work:

- 5.33 Contractor shall be responsible for all cutting of masonry and other materials, and all fitting, drilling or patching which may be necessary to complete the Work or to make its several parts fit together properly, whether or not such Work is expressly specified in the Contract Documents.
- 5.34 Contractor shall not damage or endanger any portion of the Work or the work performed by Department or by any separate contractors by cutting, patching or otherwise altering any work, or by excavation. Contractor shall not cut or otherwise alter work performed by Department or any separate contractors except with the written consent of Department and of such separate contractor. Contractor shall not unreasonably withhold from Department or any separate contractor consent to cutting or otherwise altering the Work.

Quality Control:

- 5.35 Reference is made to the Supplementary Conditions, Standard Specifications and Supplementary Specifications for the identification of Contractor's quality control system requirements under the Contract.

Project Meetings:

- 5.36 Contractor, along with appropriate Subcontractors, suppliers and manufacturers, shall attend weekly project meetings at the site or as requested by Department or Engineer, for the purpose of discussing and resolving matters concerning the various elements of the Work.

Notification of Emergency Services:

- 5.37 Contractor shall notify all local Police, Fire Department and Ambulance Services at least twenty-four (24) hours in advance of construction across or adjacent to existing roadways in order that such services might be aware of any disrupted access.

Conflicts Between Contract Documents and Site:

- 5.38 Contractor shall notify Engineer and Department immediately upon discovering any conflicts, ambiguities, error or inconsistencies in the Contract Documents, between the Contract Documents and the actual Site Conditions, or between the Contract Documents and work being done by others. Failure to promptly notify the Engineer and Department may invalidate Contractor's request for an increase in Contract Price and/or Time.

ARTICLE 6 - Other Work

Related Work at Site:

- 6.1 Department may perform other work related to the Project at the site by Department's own forces, have other work performed by utility owners, or enter into other contracts for such other work.
- 6.2 Contractor shall afford each utility owner and other contractor who is a party to a direct contract with Department (or Department, if Department is performing the additional work with Department's employees) proper and safe access to the site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such work, and shall properly connect the Work with theirs. Contractor shall do all the Work that may be required to make its several parts come together properly and integrate with other work. Contractor shall only alter the work of others with the written consent of Engineer and notice to the other contractors whose work will be affected, and shall not endanger any work of others by altering their work. The duties and responsibilities of Contractor under this paragraph are for the benefit of such utility owners and other contractors.
- 6.3 If any part of Contractor's Work depends for proper execution or results upon the work of any such other contractor, utility owner or Department, Contractor shall inspect and promptly report to Engineer in writing any delays, defects or deficiencies in such work that render it unavailable or unsuitable for such proper execution and results. Contractor's failure 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.

ARTICLE 7 - Department's Responsibilities

- 7.1 Department may issue communications to Contractor through Engineer.
- 7.2 In case of termination of the employment of Engineer, Department shall appoint an engineer whose status under the Contract Documents shall be the same as the former Engineer.

- 7.3 Department shall promptly furnish the data as required under the Contract Documents and shall make payments to Contractor promptly after they are due as provided in Article 13.
- 7.4 Department is represented by the Project Field Representative, the Project Manager and the Designated Representative whose duties and authority are set forth in the Contract Documents. Department is also represented by Engineer.
- 7.5 Department will not be responsible for Contractor's means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, unless the Contract Documents specifically impose such a duty on Department. Department will not be responsible for Contractor's failure to perform or furnish the Work in accordance with the Contract Documents.
- 7.6 Department will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other person or organization performing or furnishing any of the Work.

ARTICLE 8 - Engineer's Duties and Responsibilities

Project Representation:

- 8.1 The duties and responsibilities and the limitations of authority of Engineer during construction are set forth in the Contract Documents. Engineer's Resident Engineer will assist Engineer in inspecting the performance of the Work. The duties, and authorities of any Resident Engineer and Resident Project Representatives are set forth in the Contract Documents. Secondly Department is represented as set forth in article 7.4 of the General Conditions.

Visits to Site:

- 8.2 Engineer shall make any on-site inspections necessary to check the quality or quantity of the Work and to determine if the Work is proceeding in accordance with the Contract Documents. Engineer's duty to visit the site shall in no way be construed to relieve Contractor of its duty to perform the Work in conformance with the Contract Documents.

Clarifications and Interpretations:

- 8.3 Engineer or Department shall issue with reasonable promptness written clarifications or interpretations of the requirements of the Contract Documents (in the form of Drawings or otherwise) as Engineer or Department may determine necessary, which shall be consistent with or reasonably inferable from the overall intent of the Contract Documents.

Authorized Variations in Work:

- 8.4 Engineer may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Time and are consistent with the overall intent of the Contract Documents. These may be accomplished by a Field Order and will be binding on Contractor who shall perform the Work involved promptly. If Contractor believes that a Field Order justifies an increase in Contract Price or an extension in Contract Time, Contractor shall be required to deliver a written notice thereof to Engineer in accordance with the provisions of Article 9 of the General Conditions. If Department and Contractor are unable to agree as to amount and extent thereof, a claim may be made pursuant to Articles 10 and 11 of the General Conditions.

Rejecting Defective Work:

- 8.5 Engineer, based on its inspections, reports of its Resident Engineer, other information available to it and its professional experience and training, or the direction of Department, may disapprove or reject Work at any time during the construction of the Work, which Engineer believes to be Defective Work. Engineer shall also have authority to require special inspection or testing of the Work as provided in paragraphs 12.4 through 12.10 of the General Conditions, whether or not the Work is fabricated, installed, or completed. When Contractor has been notified by Engineer of disapproval or rejection of Defective Work, Contractor shall take immediate action to correct same at no additional cost.

Shop Drawings, Change Orders and Payments:

- 8.6 Engineer's responsibilities regarding Shop Drawings and samples, are set forth in paragraphs 5.24 through 5.30 of the General Conditions. If Contractor believes that Engineer's approval of a Shop Drawing or sample justifies an increase in Contract Price or an extension in Contract Time, Contractor shall be required to deliver a written notice thereof to Engineer in accordance with the provisions of Article 9 of the General Conditions. If Department and Contractor are unable to agree as to amount and extent thereof, a claim may be made pursuant to Articles 10 and 11 of the General Conditions.
- 8.7 Engineer's duties regarding Change Orders are set forth in Articles 9, 10 and 11 of the General Conditions.
- 8.8 Engineer's duties regarding Applications for Payment, etc., are set forth in Article 13 of the General Conditions.

Determinations for Unit Prices:

- 8.9 Engineer will review and make preliminary determinations on the actual quantities and classifications of acceptable Unit Price Work performed by Contractor. Engineer will review such preliminary determinations with Contractor, before rendering a written decision thereon by recommendation of an Application for Payment or otherwise. Department shall review and approve Engineer's determinations. Department's decisions thereon shall be final unless within 10 days after the date of any such decision, Contractor delivers to Department and to Engineer written notice of disagreement with Engineer's Determination including written documentation supporting such position.

Engineer's Determinations and Claims:

- 8.10 Engineer shall interpret the Contract Documents and determine the acceptability of the Work thereunder subject to Department's right to modify or overrule Engineer's determination after consultation with Engineer and Contractor. Claims or other matters relating to the acceptability of the Work or the interpretation of the requirements of the Contract Documents pertaining to the performance and furnishing of the Work, or in respect to changes in the Contract Price or Contract Time will be referred to Engineer in writing with a request for a formal determination in accordance with this paragraph. Engineer shall render such determination in writing within a reasonable time. Written notice of Contractor's disagreement with Engineer's Determination constituting a Claim shall be delivered by Contractor to Engineer and Department within ten days after receipt. Written documentation supporting such position shall be submitted to Department within thirty days of Engineer's Determination, unless the Department allows an extension of time to submit additional information.

- 8.10.1 A written demand or written assertion by Contractor seeking the payment of money is not a Claim under this Article until certified as required below. Contractor shall submit with the claim a certification executed by Contractor's Authorized Representative specified in the Contract Documents that:
- 8.10.1.1 The Claim is made in good faith,
 - 8.10.1.2 Supporting Cost and Pricing Data are current, accurate, and complete to the best of the Contractor's knowledge and belief, and
 - 8.10.1.3 The amount of the Claim accurately reflects the adjustments in Contract Price or Contract Time for which Contractor believes Department is liable.
- 8.10.2 Contractor agrees that all unresolved claims shall be subject to the Dispute Resolution procedures as provided in Article 9 in Appendix B to the Agreement.
- 8.10.3 Contractor shall proceed diligently with performance of Work under this Contract, and comply with any decision of Engineer or Department pending final resolution of any request for relief, Claim, appeal, or action arising under the Contract.

Limitations on Engineer's Responsibilities:

- 8.11 Whenever in the Contract Documents the terms "as ordered," "as directed," "as required," "as allowed," "as approved," or terms of like effect or import are used, or the adjectives "unreasonable," "unsuitable," "acceptable," "proper," or "satisfactory," or adjectives of like effect or import are used to describe a requirement, direction, review or judgment of Engineer as to the Work, it is intended that such requirement, direction, review or judgment will be solely to evaluate the Work for compliance with the Contract Documents unless there is a specific statement indicating otherwise. The use of any such term or adjective shall not be effective to assign to Engineer any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of paragraph 8.12 or 8.13.
- 8.12 Engineer will not be responsible and Contractor remains responsible for Contractor's means, methods, techniques, sequences and procedures of construction, and the safety precautions and programs incident thereto, unless Contract Documents specifically impose such a duty on Engineer. Engineer will not be responsible for Contractor's failure to perform or furnish the Work in accordance with the Contract Documents.
- 8.13 Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other person or organization performing or furnishing any of the Work.

ARTICLE 9 - Changes in the Work

- 9.1 Department may, at any time or from time to time and without notice to any surety, order additions, deletions or revisions in the Work or other requirements, which the performance of, or compliance with, is established in the provisions of the Contract Documents. These changes will be initiated by Proposed Change Orders, in Administrative Orders and authorized by Change Orders. Upon receipt of an Administrative Order, or Proposed Change Order, the Contractor shall proceed with the Work involved. All such Work involved shall be performed in accordance with the applicable conditions of the Contract Documents. If an Administrative Order or Proposed Change Order causes an increase or decrease in the Contract Price or an extension or shortening of the Contract Time, an equitable adjustment will be made in a duly executed Change Order. The value of any work covered by a Proposed Change Order or a Change Order for an increase or decrease in the

Contract Price or the Contract Time, hereafter called the "Work involved", shall be determined by one of the following methods:

- 9.2 Department may order minor changes in the Work which do not involve an adjustment in the Contract Price or in the Contract Time and are consistent with the overall intent and purpose of the Contract Documents. Such minor changes will be authorized by a Field Order which shall be binding on Department and Contractor who shall perform such changes promptly. If Contractor believes that a Field Order justifies an increase in the Contract Price or the Contract Time, Contractor shall make written notification in accordance with Section VIII, Article 8.10 within 3 days and provide documentation within 15 days in a Proposed Change Order to Engineer.
- 9.3 Additional work performed without authorization of a Proposed Change Order will not entitle Contractor to an increase in the Contract Price or an extension in the Contract Time, except in the case of emergency work as provided in paragraph 5.23 of the General Conditions and except in the case of uncovering Work as provided in paragraph 12.9 and 12.10 of the General Conditions.
- 9.4 When changes in the Work, involving adjustments to the Contract Price or Contract Time are contemplated by Department, pursuant to paragraph 9.1, Contractor may be requested to submit a cost proposal prior to being authorized to proceed with the change. If Department and Contractor are unable to agree and Department orders the change, or if Department pursuant to Engineer's review and decision concludes that the written direction, instruction, interpretation or clarification, approval, decision or determination does not require an increase in Contract Price or extension in Contract Time, Contractor will be required to carry on with the Work involved and adhere to the Progress Schedule. Contractor proposals substantiating the amount and extent of any proposed adjustment in Contract Price or Contract Time shall become due within three days of receipt (or issuance) of a Proposed Change Order initiated by Department (or Contractor), and shall be submitted in accordance with Articles 8, 9, 10 and 11 of the General Conditions. Any delays in the submittal of Contractor proposals relative to adjustments in Contract Price or Contract Time will not justify a delay or constitute basis for an increase in Contract Price or an extension in Contract Time. Unless Contractor gives written notice of intent to appeal Department's determination or to file a claim in accordance with Article 8 of the General Conditions, within said thirty days of the issuance of a Proposed Change Order or the rejection of a Proposed Change Order, Department's determination shall be final and binding upon Contractor.
- 9.5 Upon receipt of a cost proposal from Contractor, pursuant to paragraph 9.4 above, and if Department agrees with the increase or decrease in the Contract Price or Contract Time, Department shall authorize the change in the Work by issuing a Proposed Change Order and shall begin preparation of a Change Order covering the Work involved.
 - 9.5.1 A Change Order shall also be any other written order, including direction, instruction, interpretation, determination, or decision embodied in a Field Order, or in a response to a request for clarification or interpretation of the requirements of the Contract Documents, or in an approval of a Shop Drawing or sample, or in a decision relating to a report or differing or unforeseen conditions or the acceptability of Work or Administrative Order which causes any change, provided that Contractor gives Engineer and Department a dated written notice identifying the written order and stating circumstances and other information required in this Article and in Articles 8, 9, 10 and 11 of the General Conditions indicating that Contractor considers the written order a Proposed Change Order.
 - 9.5.2 Contractor quotations substantiating the amount or extent of any proposed adjustment in Contract Price or Contract Time shall cover all known amounts or extents to which Contractor is entitled as a result of the proposed change. Pursuant to this requirement of the Contract Documents, Contractor

acknowledges and agrees to the following waivers when executing Change Orders or Proposed Change Orders authorized in accordance with paragraph 9.4 of the General Conditions:

9.5.2.1 Contractor acknowledges and agrees that the adjustments in Contract Price and Contract Time stipulated in this Change Order represent full compensation for all increases or decreases in the cost of, or the time required to perform the entire Work under the Contract, arising directly or indirectly from this Change Order, including this and all previous Change Orders. Acceptance of this waiver constitutes an agreement between Department and Contractor that the Change Order represents an all inclusive, mutually agreed upon adjustment to the Contract for all direct, indirect and consequential costs and delays, and that Contractor shall waive all rights to file a claim on this Proposed Change Order after it is properly executed.

9.5.2.2 Acceptance by Contractor is evidence of mutual accord and satisfaction for those adjustments in Contract Price and Contract Time stipulated in this Proposed Change Order, that Contractor shall submit detailed supporting data within fifteen days in accordance with Articles 10 and 11 of the General Conditions to allow negotiation of outstanding issues, and that the changes ordered and documented by this Proposed Change Order will be incorporated into a future Change Order subsequent to agreement on all outstanding issues.

9.6 If the provision of any bond requires that the surety be notified of any change in the Work, it shall be Contractor's responsibility to so notify the surety and the amount of each applicable bond shall be adjusted accordingly. Contractor shall furnish proof to Department of such adjustment.

9.7 No claim by Contractor for an adjustment under this Article of the General Conditions shall be allowed if asserted after the date of final payment under this Contract.

ARTICLE 10 - Change of Contract Price or Time

10.1 The Contract Price constitutes the total compensation, subject to authorized adjustments, payable to Contractor for performing the Work. All duties, responsibilities and obligations assigned to or undertaken by Contractor shall be at its own expense without any change in the Contract Price or the Contract Time.

10.2 The Contract Price and the Contract Time may only be changed by a duly executed Change Order.

10.3 The value of the Work involved shall be determined by one of the following methods:

10.3.1 Where the Work involved is covered by unit prices contained in the Contract Documents, those unit prices shall be used to determine the cost of the Work involved.

10.3.2 Where the Work involved is not covered by unit prices contained in the Contract Documents, by application of mutually agreed upon unit prices to the quantities of the items of Work involved.

10.3.3 By mutual acceptance of a lump sum.

10.3.4 On the basis of the cost of the Work involved as provided in paragraph 10.4 of this Article plus a Contractor's fee for overhead and profit as provided in paragraph 10.7 of this Article.

- 10.3.5 Where the Department and Contractor cannot agree on any of the methods described above, and Department directs Contractor to proceed with the Work involved as provided in Article 10 of the General Conditions.
- 10.4 The Cost of the Work involved shall include the following items and shall not include any of the costs disallowed under this Article 10 of the General Conditions:
- 10.4.1 Payroll costs of employees in the direct employ of the Contractor in the performance of the Work involved in job classifications agreed upon by Department and Contractor. Payroll costs shall include, but shall not be limited to, salaries and wages plus the cost of fringe benefits which shall include social security contributions, unemployment, excise and payroll taxes, workers or workmen's compensation, health and retirement benefits, and sick leave applicable thereto. Such employees may include foremen at the site but shall not include employees in the job classifications itemized in paragraphs 10.6.1. The costs of performing the Work involved during other than normal working hours, as defined in paragraph 5.3.1, shall be included in the above to the extent authorized by Department and as required by Law.
- 10.4.2 Cost of all materials and equipment furnished and incorporated into the Work involved, including costs of transportation and storage thereof, and suppliers' field services connected therewith. All cash discounts shall accrue to Contractor unless Department deposits funds with Contractor with which to make payments, in which case, the cash discounts shall accrue to Department. All trade discounts, rebates and refunds, and all returns from sale of surplus materials and equipment shall accrue to Department, and Contractor shall make provisions so that they may be obtained.
- 10.4.3 Payments made by Contractor to subcontractors who perform a part of the Work involved. If required by Department, Contractor shall obtain competitive bids from prospective subcontractors acceptable to Contractor and shall deliver such bids to Department who will then determine which bids will be accepted. If a subcontract provides that the subcontractor is to be paid on the basis of cost plus a fee, the subcontractor's cost shall be determined in the same manner as Contractor's cost of the Work involved. All subcontracts shall be subject to the provisions of the Contract Documents, insofar as applicable.
- 10.4.4 Costs of special consultants, including but not limited to engineers, architects, testing laboratories, surveyors, attorneys and accountants, employed for services specifically related to the Work involved to the extent authorized in writing by Department.
- 10.4.5 Costs of Contractor owned equipment - Contractor shall be reimbursed for his ownership and operating costs for self owned equipment employed on the Work involved. The rates of reimbursement shall be as listed in most recent published edition of the Rental Rate Blue Book published by Dataquest, Inc. in effect on the date of issuance of the applicable Change Order or Proposed Change Order, or prior to performing the Work in a claim for an increase or decrease in the Contract Price and applied in the following manner.
- 10.4.5.1 Ownership costs - The equipment rates for ownership costs include depreciation on the original purchase, insurance, applicable taxes, interest on investment, storage, repairs, mobilization to and demobilization from the site of the Work involved, and profit reimbursement will be made for the hours on the Work involved. In no event shall the equipment rate billed to Department be at rates exceeding those described below.

- 10.4.5.2 Less than 8 hours of actual use or necessary for availability as approved by Engineer: The daily rate or the product of the hours of actual use multiplied by the hourly rate, whichever is less.
- 10.4.5.3 Between 8 hours and 40 hours of actual use: The weekly rate or the product of the hours of actual use used divided by 8 and multiplied by the daily rate, whichever is less.
- 10.4.5.4 Between 40 hours and 176 hours of actual use: The monthly rate or the product of the hours of actual use divided by 40 multiplied by the weekly rate, whichever is less.
- 10.4.5.5 Over 176 hours of actual use: The product of the hours of actual use divided by 176 multiplied by the monthly rate.
- 10.4.5.6 Operating costs including fuel, lubricants, other operating expendables, and preventive and field maintenance. Operating costs do not include the operator's wages. Contractor shall be reimbursed the product of the hours of actual use multiplied by the estimated operating cost per hour.
- 10.4.5.7 The geographic area adjustment factor and the Rate adjustment tables for federal aid projects shall be applied to the equipment ownership rates.
- 10.4.5.8 The rates used shall be those in effect at the time the Work involved is to be done as listed in the then current Rental Rate Blue Book.
- 10.4.5.9 In the event that a rate is not established in the Rental Rate Blue Book for a particular piece of equipment, Department will establish rates for ownership and operating costs.
- 10.4.5.10 Equipment to be used by Contractor shall be specifically described by manufacturer and model number and be of suitable size and capacity to accomplish the Work involved. In the event Contractor elects to use equipment of a higher rental rate than equipment suitable for the Work involved, payment will be made at the rate applicable to the suitable equipment. Department and Engineer shall determine the suitability of the equipment. If there is a differential in the rate of pay of the operator of oversized or higher rate equipment, the rate paid for the operator will likewise be related to the suitable equipment.
- 10.4.5.11 Transportation, loading and unloading, installation, dismantling and removal costs shall be included only if such construction equipment and machinery is imported to the site solely to perform the Work involved in the Change Order Proposed Change Order, or Claim. All equipment costs shall cease when the use thereof is no longer necessary to perform the Work involved or the equipment cannot be used to perform the Work involved due to contractor actions or inactions. Payroll costs for employees operating the equipment shall be in accordance with paragraph 10.4.1 of the General Conditions.
- 10.4.5.12 Actual equipment use time documented by Engineer shall be on the basis that the equipment was on and used at the site. In addition to the leasing rate, equipment operational costs shall not exceed the estimated hourly operation rate as set forth in the Blue Book. Daily records listing the equipment units and their respective operators, identification code, and actual usage and certified at the end of each day by Engineer shall be the record upon which actual equipment use shall be based. For multiple shift

work sequences the allowable equipment rate for second or third shifts shall not exceed 50 percent of the base rate. Idle equipment at the site and necessary to perform the Work involved but not in actual use shall be paid at the rate determined above. Idle time shall include a reasonable time allowance to and from the site, and be as documented by Engineer.

10.4.6 Costs of Contractor rented equipment.

10.4.6.1 In the event Contractor must rent a specific piece of equipment, payment will be the actual rental rate for the piece of equipment for the time that is is used on the Work involved or required by Department to be present, not to exceed the rental rate in the Rental Rate Blue Book, plus the reasonable cost of moving the equipment onto and away from the site of the Work involved.

10.4.6.2 Contractor shall also be reimbursed for the operating cost of the rented equipment if that cost is not included in the rental cost. The operating cost shall be determined in the same manner as specified for Contractor owned equipment above. If contractor owned equipment is available on site to complete the work, Contractor shall be reimbursed only at the rate for owned equipment and there shall not be any reimbursement for transportation of equipment to or from site.

10.4.6.3 In the event area practice dictates the rental of fully manned or fueled and maintained equipment, payment will be made on the basis of an invoice for the rental of the fully manned, fueled and/or maintained equipment, including all costs incidental to its use, plus costs of moving to and from the site of the Work involved, provided the rate is substantiated by area practice.

10.4.6.4 Transportation, loading and unloading, installation, dismantling and removal costs shall be included only if such construction equipment and machinery is imported to the site solely to perform the Work involved in the Change Order, Proposed Change Order, or Claim. All equipment costs shall cease when the use thereof is no longer necessary to perform the Work involved or the equipment cannot be used to perform the Work involved due to Contractor actions or inactions. Payroll costs for employees operating the equipment shall be in accordance with paragraph 10.4.1 of the General Conditions.

10.4.7 The maximum amount of reimbursement for the ownership costs of Contractor owned equipment or for the rental costs of rented equipment shall be limited to the original purchase price of the equipment as listed in the Green Guide for Construction Equipment published by the Equipment Guide Book Company. In the specific event where the reimbursement is limited by the original purchase price, Contractor shall be reimbursed for the operating cost per hour for each hour of actual use.

10.4.8 Supplemental costs due solely in connection with the Work involved to include the following:

10.4.8.1 The necessary transportation, travel and subsistence expenses of Contractor's employees who are solely employed in the Work involved.

10.4.8.2 Costs, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office and temporary facilities at the site required, but excluding

hand tools, protective clothing and other consumables which are used or consumed in connection with the Work involved and are individually valued at less than \$100.00.

10.4.8.3 Sales, consumer use, or similar taxes for which Contractor is liable, exclusive of New York State and local sales taxes for materials, supplies and equipment incorporated into the Work.

10.4.8.4 Royalty payments and fees for licenses and permits.

10.4.8.5 Costs of utilities at the site including but not limited to electricity, telephone, fuel, heat, water, property rental and sanitary facilities.

10.5 The amount of credit to be allowed by Contractor to Department for any individual change in the Work which results in a net decrease in cost shall be the amount of the actual net decrease plus a deduction in Contractor's fee equal to one half of the fee derived from the application of paragraphs 10.7.2.1, 10.7.2.2 and 10.7.2.3 of this Article.

10.5.1 When more than one individual change is covered by one Proposed Change Order or Change Order, the adjustment in Contractor's fee shall be the sum of the individual fees computed on each individual change in accordance with paragraphs 10.7.2.1 through 10.7.2.4.

10.6 The cost of the Work involved shall not include any of the following, all of which are to be considered general and overhead costs covered by the Contractor's fee:

10.6.1 Payroll costs and other compensation of Contractor's executives, principals (of partnership and sole proprietorships), general managers, engineers, architects, estimators, attorneys, superintendents, administrators, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks and other personnel employed by Contractor, at the site or not, for general administration of the Work including any Change Orders, and who are not specifically included in the agreed upon schedule of job classifications referred to in paragraph 10.4.1 of this Article.

10.6.2 Expenses of Contractor's principal and branch offices other than Contractor's office at the site. Costs derived from the computation of an extended or unabsorbed home office overhead rate by application of the Eichleay, Allegheny, Burden Fluctuation, or other similar methods.

10.6.3 Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work involved and charges against Contractor for delinquent payments.

10.6.4 Cost of premiums for all bonds and insurance whether or not Contractor is required by the Contract Documents to purchase and maintain the same.

10.6.5 Costs incurred in the preparation of Proposed Change Orders or Change Orders or in preparation or filing of claims.

10.6.6 Expenses of Contractor associated with anticipated lost profits or lost revenues, lost income or earnings, lost interest on earnings or unpaid retainage.

10.6.7 Small tools used or consumed in the performance of the Work involved having an individual value of less than \$100.

- 10.6.8 Costs due to negligence of Contractor or any subcontractor anyone directly or indirectly employed by them for whose acts any of them may be liable, including, but not limited to correction of defective work, disposal of equipment or material wrongly supplied and repairing any damage to property.
- 10.6.9 Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in paragraph 10.4 of this Article, all of which are to be considered general and overhead costs covered by the Contractor's fee.

Contractor's Fee:

- 10.7 The Contractor's fee for general and administrative overhead costs (whether at the site or in Contractor's principal or branch offices), small tools and profit on the Work involved shall be determined by negotiations in accordance with this paragraph.
 - 10.7.1 Contractor shall negotiate with Department for reasonable overhead rates and fair and reasonable profit based on assumptions of risk, exposure to weather, size of the change, labor to material ratio, equipment requirements, and time of performance.
 - 10.7.2 In no case shall the Contractor's fee exceed the following percentages of the various percentages of the Cost of the Work involved.
 - 10.7.2.1 For costs incurred under paragraph 10.4.1 (Payroll Costs) of this Article, the Contractor's fee shall not exceed fifteen percent (15%).
 - 10.7.2.2 For costs incurred under paragraph 10.4.2 (Costs of Materials and Equipment) of this Article, the Contractor's fee shall not exceed ten percent (10%).
 - 10.7.2.3 For costs incurred under paragraph 10.4.3 (Cost of Subcontracts) of this Article, the Contractor's fee shall not exceed five percent (5%) and the subcontractor's fee shall not exceed ten percent (10%).
 - 10.7.2.4 For costs incurred under paragraph 10.4.3 of this Article, for work performed by a subcontractor's subcontractor, the Contractor's and the first subcontractor's fees shall not exceed five percent (5%) each and the second subcontractor's fee shall not exceed ten percent (10%).
 - 10.7.2.5 No fee shall be paid on the costs itemized under paragraphs 10.4.4 and 10.4.5 nor on subcontractors' fees derived in accordance with paragraphs 10.7.2.3 and 10.7.2.4.
 - 10.7.3 No fee shall be paid on premium portion of wages nor on increased wages due to delays.
- 10.8 Changes in the Contract Price due to changes in the Contract Time.
 - 10.8.1 An increase in the Contract Price due solely to delays causing extensions in the Contract Time will be allowed only if the delays to the Work, or parts thereof, arise from acts or omissions of Department or Engineer which are longer than the time period(s) provided for review(s) or decision(s) as provided for in the Contract Documents, and provided further that the delays arise from changes in the Work covered by Proposed Change Orders or Change Orders prepared pursuant to Article 9 of the General Conditions or from suspensions of Work pursuant to paragraph 14.1 of

the General Conditions. However no adjustment in the Contract Price shall be made under this paragraph for the following reasons:

- 10.8.1.1 For any extensions granted in the Contract Time to the extent that performance would have been so extended by any other cause including fault or negligence of Contractor or subcontractors, suppliers or other persons or organizations.
- 10.8.1.2 For any acceleration alternative in lieu of an extension proposed by Contractor, to the extent that the acceleration costs exceed those in connection with the alternative extension in Contract Time.
- 10.8.1.3 For which a Contract Price is provided or excluded under any other provision of the Contract Documents.
- 10.8.1.4 For delays which are covered by or which could be covered by relocating the Total Float or a portion of it.
- 10.8.2 Recovery of damages for delay on account of extensions in Contractor's Progress Schedule or in connection with acceleration alternatives thereof will be allowed only when said delays extend the Work, or a part thereof, beyond the applicable Contract Time(s).
- 10.8.3 It is further expressly agreed and understood that Contractor will not be entitled to any compensation or damages on account of delays which meet the requirements of paragraph 10.12.3 of the General Conditions for time extensions but which can or could have been avoided by reallocating portions of the Total Float. Under this requirement, it is further understood and agreed that the only remedies for delays which are figured to cause an extension in the Contract Time or form the basis for a proposal for an acceleration alternative thereof solely due to the use of Total Float will consist of an increase in Contract Time only and shall exclude Contractor's right to recover any delay damages or compensation from Department.
- 10.9 In submitting proposals or asserting claims for changes under this Article, Contractor acknowledges and agrees that no adjustment shall be made: 1) for any escalation costs for any part of the Work which is not delayed beyond the applicable latest possible dates specified in the approved Progress Schedule, or 2) for any acceleration costs incurred without prior authorization from Department, or 3) for which an adjustment has been provided for, limited as to extent, or excluded under any other provision of the Contract Documents.
- 10.10 Contractor quotations substantiating the amount or extent of any proposed adjustment in Contract Price or Contract Time shall cover all known amounts or extents (direct, indirect and overhead) to which Contractor is entitled as a result of the proposed change. Pursuant to this requirement, Contractor acknowledges and agrees to the following waivers when executing Proposed Change Orders and Change Orders authorized in accordance with Article 9:
 - 10.10.1 Contractor acknowledges and agrees that the adjustments in Contract Price and Contract Time stipulated in the Change Order represent full compensation for all increases or decreases in the cost of, or the time required to perform, the entire Work under the Contract arising directly or indirectly from the Change Order. Acceptance of this waiver constitutes an agreement between Contractor and Department that the Change Order represents an all inclusive, mutually agreed upon, adjustment to the Contract for all direct, indirect and consequential costs and delays, and that Contractor will waive all rights to file a claim on the Change Order after it is duly executed.

- 10.10.2 Acceptance by Contractor is evidence of mutual accord and satisfaction for those adjustments in the Contract Price and Contract Time stipulated in the Proposed Change Order, that Contractor will submit detailed supporting data within fifteen days in accordance with Articles 10 and 11 of the General Conditions to allow negotiation of outstanding issues, and that the changes ordered and documented by the Proposed Change Order will be incorporated into a future Change Order subsequent to agreement on all outstanding issues.
- 10.11 Additional costs incurred due to acceleration or additional work performed by Contractor without an agreed upon Proposed Change Order will not entitle Contractor to an increase in Contract Price or Contract Time, except in the case of emergency work as provided in paragraph 5.23 of the General Conditions or in the case of uncovering Work as provided in paragraph 12.9 of the General Conditions.
- 10.12 The Contract Time may be changed only by a duly executed Change order. Any proposal for an extension or shortening of the Contract Time shall be based on a Proposed Change Order in accordance with the provisions of this Article.
- 10.12.1 Contractor requests substantiating the extent of increase in the Contract Time shall be delivered to Engineer within fifteen days of the event causing the proposed need for the extension in the Contract Time unless Department, in writing, allows an additional period of time. Contractor shall prove that the delays have materialized or will materialize despite reasonable, prudent, and diligent efforts to prevent such delays and meet the criteria set forth in this Article. Any delays by Contractor in submittal of proposals will not justify a delay or be basis for an extension of the Contract Time.
- 10.12.2 Extensions in Contract Time due to delays to parts of the Work will not be granted until all Total Float available for those parts of the Work has been used.
- 10.12.3 An extension in the Contract Time will not be granted unless Contractor can demonstrate, through an analysis of the Progress Schedule approved in accordance with the applicable provisions of the Standard Specifications, that the delay in completing the applicable parts of the Work within the applicable Contract Time(s) arises from unforeseeable causes beyond the control and without the fault or negligence of Contractor or its Subcontractors, Suppliers or other persons or organizations, and which Contractor could not have guarded against, and that such causes do or will cause extension of the schedule for that part of the Work beyond the applicable Contract Time. Examples of such causes include 1) acts of God or of the public enemy, 2) fires, floods, epidemics, quarantine restrictions, 3) strikes, freight embargoes, 4) unusually severe weather, 5) delays of Subcontractors or Suppliers at any tier arising from unforeseeable causes beyond the control and without fault or negligence of both Contractor and the Subcontractors, Suppliers or other persons organizations.
- 10.12.4 All time limits stated in the Contract Documents are of the essence. They have been developed by taking into account:
- 10.12.4.1 The scope of the Work under the Contract Documents;
- 10.12.4.2 Reasonable time for performance of the Work, or parts thereof, as a whole; and
- 10.12.4.3 The perceived sensitivity of the Work, or parts thereof, as a whole, to the potential delaying effect of causes meeting the requirements of paragraph 10.12.3.
- 10.12.4.4 Therefore, and as long as delays meeting the requirements of paragraph 10.12.3 are not to be considered by Contractor in the initial development of the Progress Schedule

pursuant to paragraph 1.6 of the General Conditions and the Progress Schedule Section of the Standard Specifications, the initial Progress Schedule developed by Contractor could show Total Float with respect to the Contract Time, or contract Times. Pursuant to the Float sharing requirements of the Contract Documents (as set forth in the provisions of Progress Schedule Section of the Standard Specifications) any such Total Float materializing between Contractor's completion of the Work, or part thereof, as anticipated by Contractor's approved progress Schedule, and the corresponding Contract Time(s) will be available to Department, Engineer, Contractor and others to absorb delays that cannot be mitigated by any other means.

10.12.5 The provisions of Section 10.11 of this Article shall govern and be applicable to the following:

10.12.5.1 Changes in Contract Time initiated by Department or Contractor due to delays which meet the requirements of paragraph 10.12.4.

10.12.5.2 Contractor proposals to accelerate the Progress Schedule, in lieu of the alternate extension of Contract Time, due to delays meeting the requirements of paragraph 10.12.3.

10.12.6 The provisions of paragraphs 10.11, 10.12.2, and 10.12.3 shall exclude recovery for damages arising out of an acceleration alternative to an extension in Contract Time on account of delays not meeting the requirements for extensions in Contract Time set forth in this Article.

10.12.7 The provisions of this Article 10 shall not exclude recovery for damages (including compensation for additional professional services and court costs) for delay by either party, except as otherwise specifically disallowed in this Article and in other provisions of the Contract Documents.

10.13 Failure, refusal or neglect by Contractor to comply with the time requirements for delivery of written Proposed Change Orders or notice of a claim shall be considered to be a waiver by Contractor of any request or claiming for extension in Contract Time.

10.13.1 Contractor proposals (or claims) substantiating Contractor's proposed adjustment in Contract Price shall be delivered within the time period stipulated in paragraph 9.3 and 9.4, unless Department in writing, allows an additional period of time to ascertain accurate cost data. Contractor shall prove that additional costs were necessarily incurred, despite Contractor's reasonable, prudent, and diligent efforts to prevent such costs and which meet the criteria set forth in this Article. Any delays in the submittal of Contractor proposals relative to adjustments in Contract Price will not justify a delay or constitute basis for an increase in Contract Price or an extension in Contract Time.

10.13.2 Contractor proposals (or claims) shall be submitted on forms required by Contract Documents, and shall remain firm for a period of at least 60 days from delivery of the proposal (or claim). Proposals (or claims) shall include itemized estimates of all costs and schedule adjustments that will result directly or indirectly from the changes described. Unless otherwise specified, itemized estimates shall be in accordance with the requirements of this Article of the General Conditions and in sufficient detail to reasonably permit an analysis by Engineer and Department of all quantities involved, labor and payroll costs, productivity rates, material costs, Subcontractor and Supplier costs, supplemental costs as described in paragraph 10.4.8, special consultant costs as described in paragraph 10.4.4, equipment costs, general and administrative overhead costs, field office overhead costs, and profit and shall cover all aspects of the Work involved in the change, whether such was

deleted, added, changed, or impacted. Any amount claimed for Subcontractors, Suppliers or other persons or organizations shall be similarly supported. Itemized schedule adjustments shall be sufficiently detailed to permit an analysis of effects on the Progress Schedule as required in the Standard Specifications.

ARTICLE 11 - Unit Price Work and Cash Allowances

Cash Allowances:

- 11.1 Contractor shall include in the Contract Price all cash allowances named in the Contract Documents and all Work covered by those cash allowances shall be performed for an amount not to exceed those allowances without prior approval in writing by Engineer.
 - 11.1.1 The allowances include the cost to Contractor (less any applicable trade discounts) of materials labor and equipment required by the allowances to be delivered at the site, and all applicable taxes; and the cost documentation requirements of Articles 9, 10, 11 apply to cash allowances.
 - 11.1.2 Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

Unit Price Work:

- 11.2 Where the Contract Documents provide that all or part of the Work to be performed on the basis of Unit Prices, the following shall apply:
 - 11.2.1 The original Contract Price shall include the sum of the bid unit prices for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated on the Contract Bid Form.
 - 11.2.2 Unless otherwise provided by the Contract Documents, the estimated quantities of Unit Price Work are not guaranteed and are solely for the purpose of comparing Bids and determining the initial Contract Price.
 - 11.2.3 Engineer shall determine the actual quantities and classifications of Unit Price Work performed by Contractor and will review with Contractor preliminary determinations before recommending an Application for Payment for those items.
 - 11.2.4 Contractor shall have included overhead and profit in the price of each separately stated unit price item bid.
 - 11.2.5 The Unit price of an item of Unit Price Work shall be subject to re-evaluation, negotiation, and possible adjustment under the following conditions:
 - 11.2.5.1 If the total cost of a particular item of Unit Price Work change by \$30,000 or 5% or more of the total Contract Price, whichever is less, and the variation in the quantity of that particular item of Unit Price Work performed by Contractor differs by more than 15% from the estimated quantity of such item indicated in the Agreement; and

- 11.2.5.2 If Contractor justifies and adequately documents to the Department's satisfaction additional expenses have been incurred as a result thereof, or
- 11.2.5.3 If Department believes that the quantity variation entitles Department to an adjustment in the Unit Price,

Either Department or Contractor may make a request for an adjustment in the Contract Price in accordance with the Contract Documents. If the parties are unable to agree as to the effect of any such variations in the quantity of Unit Price Work performed, a claim may be made.

- 11.2.6 The negotiated Unit Price shall be applicable only to the variation in quantities above 115% or below 85% of the quantities estimated or indicated.
- 11.2.7 If Department or Contractor believes that the quantity variation requires an extension or shortening in Contract Time, either party shall within seven working days of knowledge of the variation in quantities, submit a written Proposed Change Order to the other party and to Engineer, and substantiate the request within fifteen days thereafter in accordance with the analysis and documentation provisions of the Standard and Supplementary Specifications.

ARTICLE 12 - Warranty and Guarantee; Tests and Inspections; Correction, Removal or Acceptance of Defective Work

Warranty and Guarantee:

- 12.1 Contractor warrants and guarantees to Department that all Work shall be in accordance with the Contract Documents and shall not be defective. Immediate notice of all defects shall be given to Contractor by Engineer. All defective Work, whether or not in place, may be rejected, corrected or accepted as provided in this Article.
 - 12.1.1 The obligations of Contractor under this paragraph 12.1 shall be in addition to and not in limitation of any obligation imposed upon it by special guarantees required by the Contract Documents or by Law.
 - 12.1.2 Notwithstanding anything in these Contract Documents to the contrary, when a particular item of equipment or part of the Work reaches Substantial Completion upon successful performance of Pre-operational Testing, and a) is not placed in continuous service until the commencement of the Correction Period, or b) is placed in continuous service upon reaching Substantial Completion (as a segment of a completed Project) but use will be limited until all segments of the Project reach substantial completion thereby commencing the Correction Period, and notwithstanding anything in the Contract Documents to the contrary, Contractor shall maintain the particular item of equipment or part of the Work in good order and in proper working condition during the period between the particular Substantial Completion date and the commencement of the Correction Period, and for such maintenance Contractor shall receive no adjustment in Contract Price. Also Contractor shall maintain the warranties and guarantees required under paragraph 12.1 of the General Conditions in full force and effect during the period between the particular item's Substantial Completion date and the commencement of the Correction Period, and for such warranties and guarantees Contractor shall receive no adjustment in Contract Price.
 - 12.1.3 The warranties and guarantees provided by Contractor under paragraph 12.1 of the General Conditions shall remain in full force and effect from the date of Substantial Completion of the

Work, or part thereof, until one year after the date of commencement of the Correction Period or such a longer period as may be prescribed by Law or the terms of any applicable specific warranty or guarantee required by the Contract Documents or by any specific provision of the Contract Documents.

One Year Correction Period:

- 12.2 If within the period from the date of Substantial Completion of a particular item of equipment or a designated part of the Work to one year after the commencement of the Correction Period, or such longer period as may be prescribed by Federal or New York State Law or by the terms of any applicable special guarantee required by the Contract Documents or by any specific provision of the Contract Documents, the particular item of equipment or designated part of the Work is found to be defective, Contractor shall promptly, without an adjustment in Contract Price and in accordance with Department's or Engineer's written instructions, either correct such Defective Work, or if it has been rejected by Department or Engineer, remove it from the site and replace it with Work which conforms to the requirements of the Contract Documents. Department or Engineer may direct the correction or removal and replacement of Defective or rejected Work. In addition to any other remedies which Department may have, Contractor shall pay the indirect and consequential costs of such correction or removal and replacement, including but not limited to fees and charges of engineers, architects, attorneys and other professionals, any additional expenses incurred by Department due to delays to others performing work under a separate contract with Department, and other contractual obligations, if the Defective Work is not corrected or the rejected Work is not removed and replaced within 30 days of the Department's or Engineer's written rejection or request for rejection of Work unless otherwise provided for in writing. In the event that Contractor fails to pay such costs within thirty days after receipt of an invoice from Department, a Change Order or Proposed Change Order may be issued incorporating the unpaid amount, and Department shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, a claim may be made therefore as provided in Articles 8, 9 and 10 of the General Conditions.
- 12.2.1 At the date of Substantial Completion of the Work, the parties have agreed on the date for commencement of the Correction Period. However, Department may at its sole option advance or delay the date for commencement of the Correction Period, and Contractor's obligations to extend warranties and guarantees in accordance with paragraphs 12.1.2 and 12.1.3 or to maintain the Work in accordance with paragraph 12.1.2 and 12.1.3 until then shall remain absolute. Applicable Change Orders or Proposed Change Orders shall be executed by the parties to adjust the Contract Price, as appropriate, on the basis of the unit prices declared in Contractor's Bid for extended warranty and extended maintenance requirements.
- 12.2.2 No later than 30 days before the date for commencement of the Correction Period, Engineer shall notify Contractor in writing of the date upon which the Correction Period is expected to commence, and Contractor shall ensure that the parts of the Work which reached Substantial Completion upon successful performance of Pre-operational Testing but were not placed in continuous service, are ready in their entirety by such date for use by Department as contemplated in the Contract Documents. In addition to any other damages payable by Contractor under these Contract Documents, Contractor shall also be liable for any damages suffered by Department on account of the parts of the Work which reached Substantial Completion upon successful performance of Pre-operational Testing but were not placed in continuous service at the beginning of the Correction Period because they were not ready for continuous utilization for the purposes for which they are intended.
- 12.2.3 Each month during the period between the date of Substantial Completion of parts of the Work which reached Substantial Completion upon successful performance of Pre-operational Testing and

the date of commencement of the Correction Period, Contractor shall certify to Engineer in writing that the said parts of the Work are being properly maintained and will be ready for use by Department upon commencement of the Correction Period.

12.2.4 During the period described in Section 12.2.3 until commencement of the Correction Period, Contractor shall bear all risks of injury, loss, or damage to any part of the Work arising from the elements or from any other cause. Contractor shall rebuild, repair, restore, and make good at no cost to Department all injuries, losses, or damage to any portion of the Work occasioned by any cause and shall at no expense to Department provide suitable drainage and erect such temporary structures and take all other actions as are necessary for the protection of the Work. Suspension of the Work or the granting of an extension in Contract Time for any cause shall not relieve Contractor of its responsibility for the Work as herein specified.

12.2.5 Contractor's responsibilities under this Paragraph 12.2 are in addition to, not in lieu of, all other obligations imposed by these Contract Documents.

Access to Work:

12.3 Representatives of Department, Engineer, and representatives of testing agencies and governmental agencies with jurisdictional interests will have access to the Work at all times for observation, inspection and testing. Contractor shall provide proper and safe conditions for such access. Inspections, tests or observations by Engineer, Department or third parties may be performed to provide information to Department on the progress of the Work, however, this provision is not intended to create any duty or obligation to Contractor by Department or Engineer, nor is the information provided intended to fulfill Contractor's obligations under the Contract.

Tests and Inspections:

12.4 Contractor shall give Engineer timely notice of readiness of the Work for all required inspections, tests or approvals.

12.5 If a Law specifically requires any Work (or part thereof) to be inspected, tested or approved, Contractor shall assume full responsibility therefor, pay all costs in connection therewith and furnish to Engineer the required certificates of inspection, testing or approval. Except as provided in Article 5, Contractor shall be responsible for and shall pay all costs in connection with any inspection or testing required in connection with Department's or Engineer's acceptance of materials or equipment proposed or submitted to Department and Engineer for approval prior or subsequent to Contractor's purchase thereof for incorporation in the work. The cost of all inspections, tests and approvals in addition to the above which are required by the contract documents shall be paid by Contractor.

12.6 All inspections, tests or approvals other than those required by Law to be performed or given by public body having jurisdiction over the Work or any part thereof, shall be performed by organizations acceptable to Department and Engineer. Contractor shall perform sufficient inspection and testing of the Work to support the warranty and guarantee requirements of paragraph 12.1 and 12.2 of the General Conditions. Reference is made to the Supplementary Conditions, Standard Specifications and Supplementary Specifications for provisions applicable to the procurement of an independent testing laboratory.

12.7 If any Work, including the work of others, that is to be inspected, tested or approved is covered without written concurrence of Engineer, it must, if requested by Engineer, be uncovered for inspection. Such uncovering

shall be at Contractor's expense unless Contractor has given Engineer timely notice of Contractor's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice.

- 12.8 Neither inspections by Engineer nor inspections, tests or approvals by others shall relieve Contractor from Contractor's obligations to perform the Work in accordance with the Contract Documents.

Uncovering Work:

- 12.9 If any work is covered contrary to the written request of Engineer, it must, if requested by Engineer, be uncovered for Engineer's inspection and replaced at Contractor's expense.
- 12.10 If Engineer considers it necessary or advisable that covered Work be inspected by Engineer or inspected or tested by others, Contractor, at Engineer's request, shall uncover, expose or otherwise make available for observation, inspection or testing as Engineer may require, that portion of the Work in question, furnishing all necessary labor, material and equipment.
- 12.10.1 If it is found that such Work is Defective, Contractor shall bear all direct, indirect and consequential costs of such uncovering, exposure, observation, inspection and testing, and of satisfactory reconstruction, including but not limited to fees and charges of engineers, architects, attorneys and other professionals, any additional expenses incurred by Department due to delays to others performing work under a separate contract with Department, and other contractual obligations, Contractor shall further bear the responsibility for keeping the Work on schedule and shall not be entitled to any extension of Contract Time or recovery of any delay damages due to the uncovering.
- 12.10.2 If, however, such Work is not found to be Defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to such uncovering, exposure, observation, inspection, testing and reconstruction pursuant to Articles 9, 10 and 11.
- 12.10.3 When covered Work is uncovered and found to be Defective, all direct, indirect and consequential costs as established in paragraph 12.10.1 shall be paid by Contractor. In the event that Contractor fails to pay such costs within thirty days after receipt of an invoice from Department, a Change Order or Proposed Change Order may be issued incorporating the unpaid amount as an appropriate reduction in the Contract Price, and if the parties are unable to agree as to the amount thereof, the Contractor may make a claim therefore as provided in Articles 9 and 10 of the General Conditions.

Department May Stop the Work:

- 12.11 If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to furnish or perform the Work in such a way that the completed Work will conform to the Contract Documents, Department may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Department to stop the Work shall not give rise to any duty on the part of Department to exercise this right for the benefit of Contractor or any other party.
- 12.11.1 Contractor shall bear all direct, indirect and consequential costs of such order to Contractor to stop Work including but not limited to fees and charges of engineers, architects, attorneys and other professionals, any additional expenses incurred by Department due to delays to others performing work under a separate contract with Department, and other contractual obligations, and Contractor shall further bear the responsibility for maintaining schedule and shall not be entitled to any extension of contract time or recovery of any delay damages due to the order to stop Work.

- 12.11.2 In the event that Contractor fails to pay such costs within thirty days after receipt of an invoice from Department, a Change Order or Proposed Change Order may be issued incorporating the unpaid amount as an appropriate reduction in the Contract Price. If the parties are unable to agree as to the amount thereof, the Contractor may make a claim therefore as provided in Articles 8, 9, 10, and 11 of the General Conditions.

Correction or Removal of Defective Work:

- 12.12 If required by Engineer, Contractor shall promptly, as directed, either correct all defective Work, whether or not fabricated, installed or completed, or, if the Work has been rejected by Engineer, remove it from the site and replace it with non-defective Work that conforms with the Contract Documents. Contractor shall bear all direct, indirect and consequential costs of such correction or removal including but not limited to fees and charges of engineers, architects, attorneys and other professionals, any additional expenses incurred by Department due to delays to others performing work under a separate contract with Department, and other contractual obligations. Contractor shall further bear the responsibility for keeping the Work on schedule and shall not be entitled to any extension in Contract Time or recovery of any delay damages due to the correction or removal. In the event that Contractor fails to pay such costs within thirty days after receipt of an invoice from Department, a Change Order or Proposed Change Order may be issued incorporating the unpaid amount, as an appropriate reduction in the Contract Price. If the parties are unable to agree as to the amount thereof, the Contractor may make a claim therefore as provided in Articles 8, 9, 10, and 11 of the General Conditions.

Acceptance of Defective Work:

- 12.13 If, instead of requiring correction or removal and replacement of defective Work, Department prefers to accept it, Department may do so. Contractor shall bear all direct, indirect and consequential costs attributable to Department's evaluation and determination to accept such Defective Work, such costs to include but not be limited to fees and charges of engineers, architects, attorneys and other professionals, any additional expenses incurred by Department due to delays to others performing work under a separate contract with Department, and other contractual obligations. Contractor shall further bear the responsibility for keeping the Work on schedule and shall not be entitled to any extension in Contract Time or recovery of any delay or acceleration damages due to Department's evaluation and determination to accept such Defective Work. If any such acceptance occurs prior to Engineer's recommendation of final payment, a Change Order may be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and Department shall be entitled to an appropriate reduction in the Contract Price. In the event that Contractor fails to pay such costs within thirty days after receipt of an invoice from Department, or if the parties are unable to agree as to the amount thereof, Contractor may make a claim therefore as provided in Articles 8, 9, 10, and 11 of the General Conditions. If the acceptance occurs after final payment, an appropriate amount will be refunded by Contractor to Department.

Department May Correct Defective Work:

- 12.14 If Contractor fails within a reasonable time after written notice of Engineer to proceed to correct and to correct Defective Work or to remove and replace rejected Work as required by Engineer, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, Department may, after seven days' written notice to Contractor, correct and remedy any such deficiency. To the extent necessary to complete corrective and remedial action, Department may exclude Contractor from all or part of the site, take possession of all or part of the work and suspend or terminate Contractor's services related thereto, take possession of Contractor's tools, appliances,

construction equipment and machinery at the site and incorporate in the Work all materials and equipment stored at the site or for which Department has paid Contractor but which are stored elsewhere. Contractor shall allow Department, and Department's representatives, agents and employees such access to the site as may be necessary to enable Department to exercise the rights and remedies provided by this paragraph and the Contract Documents. All direct, indirect and consequential costs of Department in exercising such rights and remedies will be charged against Contractor in an amount approved as to reasonableness by Engineer, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and Department shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, Contractor may make a claim therefore as provided in Article 8, 9, 10, and 11. Such direct, indirect and consequential costs shall include but not be limited to fees and charges of engineers, architects, attorneys and other professionals, all costs of delay and all costs of repair and replacement of work of others destroyed or damaged by correction, removal or replacement of Contractor's Defective Work. Contractor shall not be allowed an extension of the Contract Time because of any delay in performance of the Work attributable to the exercise by Department of Department's rights and remedies hereunder.

ARTICLE 13 - Payments to Contractor and Completion

Schedule of Values:

- 13.1 The schedule of values established as provided in paragraph 1.4 and 1.6 of the General Conditions shall serve as the basis for progress payments. Progress payments for Unit Price Work shall be based on the number of units completed. Department will furnish Application for Payment forms.

Application for Progress Payment:

- 13.2 At least fourteen days before each progress payment is scheduled to be submitted to the Department, Contractor shall submit to Engineer for review an Application for Payment on forms furnished by Department filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the site or at another location agreed to in writing, the Application for Payment shall also be accompanied by bills of sale, invoices or other documentation supporting the cost, together with documents warranting that Department has received the materials and equipment free and clear of all liens, charges, security interests and encumbrances (each and all of these terms are hereinafter referred to as "Liens"). Each Application for Payment shall contain a certification by Contractor that progress payments received from Department on account of the Work have been applied by Contractor and its Subcontractors to discharge in full all of Contractor's and its Subcontractors' obligations stated in the prior Application for Payment, and that Contractor has verified the accuracy of the progress reported to have been completed by Contractor or its Subcontractors in the Application for Payment. Notwithstanding any other provisions of the Contract Documents to the contrary, neither Department nor Engineer are under any duty or obligation whatsoever to any Subcontractor or Supplier to insure that payments due and owing by Contractor to any of them are or will be made. Such parties shall rely only on Contractor's surety bonds for remedy of nonpayment by Contractor. The amount of retainage with respect to progress payments will be as provided for by the laws of New York State.
- 13.2.1 An Application for Payment a) will not be approved if the as-built documents, including but not limited to Drawings legibly marked in accordance with Contract Documents to record actual construction, are not kept current, and b) will not be approved until the completed as-built

documents, showing all variations between the Work as actually constructed and as originally shown on the Drawings and other Contract Documents, have been inspected by Engineer. For the purpose of this paragraph, the as-built documents will be considered current if they include all of the documents itemized in paragraph 5.19 together with any other information that supplements or changes the original Contract Documents which has been delivered or otherwise made known to Contractor prior to the time when Application for Payment is to be reviewed by Engineer.

- 13.2.2 An Application for Payment will not be approved until Contractor has submitted and Engineer has reviewed the Progress Schedule and submittals required in Contract Documents which are due prior to that Application for Payment.

Contractor's Warranty of Title:

- 13.3 Contractor warrants and guarantees that title to all Work, materials and equipment covered by any Application for Payment, whether or not incorporated in the Project, shall pass to Department no later than the time of payment free and clear of all Liens.

Review of Applications for Progress Payment:

- 13.4 Engineer shall, within five days after receipt of each Application for Payment, either recommend payment in writing and present the Application to Department or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the application. After presentation of the application for payment with Engineer's recommendation, the amount recommended shall be paid in accordance with New York State Law upon approval of the Department.
- 13.5 Department may refuse to make payment of the full amount recommended by Engineer for one or more of the following reasons: claims have been made against Department on account of Contractor's performance, or furnishing of the Work, Liens have been filed in connection with the Work, there are other facts or circumstances entitling Department to a set-off against the amount recommended, or Department has determined that Work performed by Contractor does not conform to Contract Documents including, but not limited to, moneys payable by Contractor to Department pursuant to the requirements of Articles 5 and 12 of the General Conditions. In the event of such refusal to pay the full recommended amount, Department must give Contractor prompt written notice (with a copy to Engineer) stating the reasons for such action.

Substantial Completion:

- 13.6 When Contractor considers all or part of the Work ready for its intended use, Contractor shall notify Department and Engineer in writing that the Work or specified part thereof, is substantially complete except for items specifically listed by Contractor as incomplete, and request that Engineer issue a certificate of Substantial Completion for the Work, or such specified part thereof. Within a reasonable time thereafter, not to exceed 30 days, Department, Contractor and Engineer shall make an inspection of the Work, or specified part thereof, to determine the status of completion. If Engineer or Department does not consider the Work, or specified part thereof, substantially complete, Engineer shall notify Contractor in writing giving the reasons therefor, after consultation with the Department. If Engineer considers the Work, or part thereof, substantially complete, Engineer shall prepare and deliver to Department a tentative certificate of Substantial Completion for the Work, or part thereof which shall fix the date of Substantial Completion. There shall be attached to the certificate a list of items to be completed or corrected before final payment, and Engineer's written recommendation as to a division of responsibilities between Department and Contractor pending final payment

including but not limited to security, operation, safety, maintenance, heat, utilities, insurance and warranties. Department shall have seven days after receipt of the tentative certificate with attachments during which to make written objection to Engineer as to any provisions of the referenced submittals and to direct a revision of the tentative certificate. Unless Department and Contractor agree otherwise in writing and so inform Engineer or Department directs the revision of the certificate of Substantial Completion for the Work, or specified part thereof, Engineer's recommendation will be binding on Contractor until final payment.

- 13.7 Department shall have the right to exclude Contractor from the Work, or part thereof, after the date of Substantial Completion for the Work, but Department shall allow Contractor reasonable access to complete or correct items on the tentative list.

Partial Utilization:

- 13.8 Department may use any finished part of the Work which has specifically been identified in the Contract Documents, or which Department, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Department without significant interference with Contractor's performance of the remainder of the Work, may be accomplished prior to Substantial Completion of all the Work subject to the following:

13.8.1 Department at any time may direct Contractor in writing to permit Department to use any such part of the Work which Department believes to be ready for its intended use and substantially complete. Contractor may certify to Department and Engineer that said part of the Work is substantially complete and request Engineer to issue certificate of Substantial Completion for that part of the Work. Within a reasonable time after such direction, Department, Contractor and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not determine that part of the Work to be substantially complete, Engineer will notify Department and Contractor in writing giving the reasons therefor. The provisions of paragraphs 13.6 and 13.7 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

13.8.2 Department may at any time direct Contractor in writing to permit Department to take over operation of any such part of the Work although it is not substantially complete. A copy of such request will be sent to Engineer and within a reasonable time thereafter Department, Contractor and Engineer shall make an inspection of that part of the Work to determine its status of completion and will prepare a list of the items remaining to be completed or corrected thereon before final payment. If Contractor does not object in writing to Department and Engineer that such part of the Work is not ready for separate operation by Department, Engineer shall submit to Department a list of items to be completed or corrected together with a written recommendation as to a division of responsibilities between Department and Contractor, including but not limited to security, operation, safety, maintenance, utilities, insurance and warranties pending final payment for such Work. Department shall have seven days to make written objection to Engineer's list and recommended division of responsibilities to direct a revision thereof. Such directed revision or otherwise objected list and recommended division of responsibilities, shall become binding upon Department and Contractor at the time when Department takes over such operation unless they shall have agreed otherwise in writing. During such operation and prior to Substantial Completion of such part of the Work, Department shall allow Contractor reasonable access to complete or correct items on said list and to complete other related Work.

Final Inspection:

- 13.9 Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will make a final inspection with Department and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. Contractor shall immediately take such measures as are necessary to remedy such deficiencies.

Final Application for Payment:

- 13.10 After Contractor has completed all corrections to the satisfaction of Engineer and Department and delivered all maintenance and operating instructions, schedules, guarantees, Bonds, certificates of inspection, marked-up record documents (as provided in paragraph 5.19) and other documents - all as required by the Contract Documents, and after Engineer has indicated that the Work is acceptable (subject to the provisions of paragraph 13.12), Contractor may make application for final payment following the procedures for progress payments. The final Application for Payment shall be accompanied by all documentation called for in the Contract Documents, together with complete and legally effective releases or waivers satisfactory to Department of all Liens arising out of or filed in connection with the Work. In lieu thereof and as provided for by the laws of New York State and approved by Department, Contractor may furnish receipts or releases in full and an affidavit of Contractor that such receipts and releases include all labor, services, material and equipment for which a Lien could be filed, and that all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Department or Department's property might in any way be responsible, have been paid or otherwise satisfied; and consent of the surety, if any, to final payment. If any Subcontractor or Supplier fails to furnish a release or receipt in full, Contractor may furnish a Bond or other collateral satisfactory to Department to indemnify Department against any Lien.

Final Payment and Acceptance:

- 13.11 If, on the basis of Engineer's inspection of the work during construction and final inspection, and Engineer's review of the final application for payment and accompanying documentation, Engineer has determined that the work has been completed in substantial conformance with the contract documents and Contractor's other obligations under the contract documents have been fulfilled, Engineer will, within ten days after receipt of the final application for payment, indicate in writing Engineer's recommendation of payment and present the application to Department for payment along with a certificate that the work was completed in substantial conformance with the contract documents. Thereupon Engineer will give written notice to Department and Contractor that the work is acceptable subject to the provisions of paragraph 13.13. Otherwise, Engineer will return the application to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application. After presentation to Department of the application and accompanying documentation, in appropriate form and substance, and with Engineer's recommendation and certification of substantial conformance with the Contract Documents, final payment will be paid by Department to Contractor in accordance with New York State Law. If Department believes deficiencies exist, it will so notify Engineer and Contractor in writing.
- 13.12 If, through no fault of Contractor, final completion of the Work is significantly delayed and if Engineer so confirms, Department shall, upon receipt of Contractor's final Application for Payment and recommendation of Engineer, and without terminating the Agreement, make payment of the balance due for that portion of the Work fully completed and accepted.

Waiver of Claims:

- 13.13 The making and acceptance of final payment will constitute:

- 13.13.1 A waiver of all claims by Department against Contractor, except claims arising from unsettled Liens, from Defective Work appearing after final inspection pursuant to paragraph 13.11 or from failure to comply with the Contract Documents or the terms of any special guarantees specified therein; however, it will not constitute a waiver by Department of any claims or rights with respect to Contractor's continuing obligations under the Contract Documents; and
- 13.13.2 A waiver of all claims by Contractor against Department other than those previously made in writing and still unsettled.

ARTICLE 14 - Suspension of Work and Termination

Department May Suspend Work:

- 14.1 Department may for its convenience, order Contractor in writing at any time to suspend the Work or any portion thereof for such a period of time as Department may determine to be appropriate. A suspension of Work order will fix the date on which the Work, or portion thereof, will be resumed. Contractor shall resume the Work, or portion thereof, on the date so fixed.
 - 14.1.1 If the performance of the Work or portion thereof is suspended for a period of time which exceeds the Total Float available in the approved Progress Schedule for the portion or portions controlling the Work affected by a suspension of Work order pursuant to paragraph 14.1, or by an act of Department or Engineer in the administration of the Contract, or by Department's or Engineer's failure to act within the applicable latest dates substantiated in the approved Progress Schedule, Contractor will be allowed an increase in Contract Price or an extension in Contract Time, or both, necessarily caused by such suspension which extends the applicable latest dates in the approved Progress Schedule. However, no adjustment will be made under this paragraph of the General Conditions for any suspension to the extent: 1) that performance would have been so suspended by any other cause, including the fault and negligence of Contractor, or 2) for which an adjustment is provided, limited as to extent, or excluded under any other provision of the Contract Documents.
 - 14.1.2 Contractor shall deliver to Engineer a written Proposed Change Order including at a minimum, justification for the request within seven days or earlier if so required elsewhere in the Contract Documents, of the act or failure to act which Contractor believes gives rise to an adjustment in Contract Price or Contract Time pursuant to paragraph 14.1.1. Failure by Contractor to comply with the time requirements for delivery of written Proposed Change Orders will be considered to be a waiver by Contractor of any request for adjustment or claim for an increase in Contract Price or Contract Time for the period of time during which the Proposed Change Order has not been submitted.
 - 14.1.3 Contractor's proposal with all supporting data shall be delivered within 15 days of such notice or within twenty-two days of such occurrence, whichever is later, unless Department allows an additional period of time to obtain more accurate data. Contractor shall prove that additional costs and delays were necessarily incurred which meet the criteria set forth in Articles 9, 10 and 11 of the General Conditions, despite Contractor's reasonable, prudent, and diligent efforts to prevent such costs or delays.
- 14.2 In addition to the provisions of Appendix B, if Department stops Work in accordance with Article 12.10 of the General Conditions or suspends Contractor's services in accordance with article 12.11, or suspends the work or any portion thereof because of Contractor's failure to prosecute the work and to protect persons and property, Contractor shall not be entitled to an extension of Contract Time or an increase in Contract Price.

Department May Terminate:

- 14.3 Department may serve written notice upon Contractor and its surety that it intends to terminate the Contract for cause upon the date specified which shall not be less than seven days from the date of the notice. Such notice shall contain the reasons for the intended termination which shall be effective on the date specified unless Contractor shall cease the violations(s) or make arrangements which are satisfactory to the Department to address the violation(s). Upon termination, the Department may exclude Contractor from the site and take possession of the Work and of all Contractor's tools, appliances, construction equipment and machinery at the site and use the same to the full extent they could be used by Contractor without liability to Contractor for trespass or conversion, incorporate in the work all materials and equipment stored at the site or for which Department has paid Contractor but which are stored elsewhere, and finish the Work as Department may deem expedient. In such case Contractor shall not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the Contract Price exceeds the direct, indirect and consequential costs of completing the Work including but not limited to fees and charges of Engineers, architects, attorneys and other professionals and court costs, such excess will be paid to Contractor. If such costs exceed such unpaid balance, Contractor shall pay the difference to Department. Such costs incurred by Department will be approved as to reasonableness by Engineer and incorporated in a Change Order or Proposed Change Order.

Department may terminate for cause upon the occurrence of any one or more of the following events:

- 14.3.1 If Contractor commences a voluntary case under any chapter of the Bankruptcy Code, as now or hereafter in effect, or if Contractor takes any equivalent or similar action by filing a petition or otherwise under any other federal or state law in effect at such time relating to the bankruptcy or insolvency;
- 14.3.2 If a petition is filed against Contractor under any chapter of the Bankruptcy Code as now or hereafter in effect at the time of filing, or if a petition is filed seeking any such equivalent or similar relief against Contractor under any other federal or state law in effect at the time relating to bankruptcy or insolvency;
- 14.3.3 If Contractor makes a general assignment for the benefit of creditors;
- 14.3.4 If a trustee, receiver, custodian or agent of Contractor is appointed under applicable law or under contract, whose appointment or authority to take charge of property of Contractor is for the purpose of enforcing a lien against such property or for the purpose of general administration of such property for the benefit of Contractor's creditors;
- 14.3.5 If Contractor admits in writing an inability to pay its debts generally as they become due;
- 14.3.6 If Contractor fails to perform the Work in accordance with the Contract Documents, including, but not limited to, failure to supply sufficient skilled workers, or suitable materials or equipment, or failure to adhere to the progress schedule established under paragraph 1.6 as revised from time to time or failure to submit an updated schedule as required by paragraph 5.6;
- 14.3.7 If Contractor disregards Laws or Regulations of any public body having jurisdiction;
- 14.3.8 If Contractor disregards the authority of Engineer;

- 14.3.9 If Contractor filed certification in accordance with New York State Finance Law §139-k which was intentionally false or intentionally incomplete; or
- 14.4 Where Contractor's services have been so terminated by Department, the termination shall not affect any rights or remedies of Department against Contractor then existing or which may thereafter accrue. Any retention or payment or moneys due Contractor by Department will not release Contractor from liability.
- 14.5 The Department may without cause and without prejudice to any other right or remedy terminate the Contract for convenience upon seven days written notice to Contractor, its surety and Engineer, and elect to abandon the Work and terminate the Agreement. In such case, Contractor shall be paid for all Work accepted by Department.

Contractor May Stop Work or Terminate:

- 14.6 If, through no act or fault of Contractor, Engineer fails to act on any Application for Payment within thirty days after it is submitted, or Department fails for one hundred and twenty days to pay Contractor any sum finally determined to be due by Department, then Contractor may, upon seven days' written notice to Department and Engineer, terminate the Agreement and recover from Department payment for all Work accepted by Department. In lieu of terminating the Agreement, if Engineer has failed to act on an Application for Payment or Department has failed to make any payment as aforesaid, Contractor may upon seven days' written notice to Department and Engineer stop the Work until payment of all amounts then due. The provisions of this paragraph shall not relieve Contractor of the obligations under paragraph 5.31 to carry on the Work in accordance with the progress schedule and without delay during disputes and disagreements with Department.

ARTICLE 15 - Miscellaneous

Notice and Service:

- 15.1 All notices, demands, requests, instructions, approvals and claims shall be in writing.
- 15.1.1 Any notice to or demand upon Contractor shall be deemed sufficient if delivered to Contractor's representative at the site or if delivered to the individual proprietor if Contractor is an individual, to a partner if Contractor is a partnership or to an officer of the corporation if Contractor is a corporation, at the office of Contractor specified in the Contract Documents, or if deposited in the United States mail in a sealed, postage prepaid envelope, addressed to the principal office of Contractor listed in the Agreement, or if delivered with charges prepaid to any telegraph company for transmission, in each case addressed to the office of Contractor specified in the Contract Documents or faxed to the number provided in the Contract Documents and followed by written notice.
- 15.1.2 All notices or other papers required to be delivered by Contractor to Department, or to any of its representatives shall, unless otherwise specified in writing to Contractor, be delivered to Department at the office specified in the Contract Documents. Any other notice or demand upon Department shall be deemed sufficient if delivered to such office, or if deposited in the United States mail in a sealed, postage prepaid envelope, or if delivered, with the charges prepaid to any telegraph company for transmission, in each case addressed to such office or to such other representative of Department or to such other address as Department may subsequently specify in writing to Contractor for such

purpose, or faxed to the number provided in the Contract Documents and followed by written notice.

15.1.3 Any written notice or other communication to Contractor's Surety or Sureties shall be delivered or mailed to the home office of the Surety or Sureties, or to the agent or agents who executed the Bonds on behalf of the Surety or Sureties.

15.1.4 Any such notice or demand shall be deemed to have been given or made as of the time of actual delivery, or, in the case of mailing or of telegrams, at the time of actual receipt thereof.

Computation of Time:

15.2 When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last calendar day of such period. If the last calendar day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the State of New York, such day will be omitted from the computation. This does not apply to contract completion time as set forth in Article 6 of the Agreement.

General:

15.3 Should Department or Contractor suffer injury or damage to person or property because of an act or omission to act of the other party, its employees or agents or others for whose acts the other party is legally liable, a Claim may be made therefore, in writing to the other party within a reasonable time of the first observance of such injury or damage. The provisions of this paragraph shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitations or repose.

15.4 The duties and obligations imposed by these General Conditions and the rights and remedies available to the parties hereunder, including but not limited to the warranties, guarantees and obligations imposed upon Contractor by Contract Documents and all of the rights and remedies available to Department thereunder, are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by New York State Laws, by special warranty or guarantee or by other provisions of the Contract Documents. The provisions of this paragraph shall be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right and remedy. All representations, warranties and guarantees made in the Contract Documents shall survive final payment and termination or completion of the Agreement.

15.5 The obligation of Contractor to maintain the Work, or any part thereof, until the completion of the Correction Period shall survive final payment and termination or completion of the Agreement.

No Waiver of Legal Rights:

15.6.1 Inspection by Engineer or by any of its duly authorized representatives, any measurement or report by Engineer, any order by Department for the payment of money, any payment for or acceptance or possession of any Work or any extension in Contract Time or any possession taken by Department shall not operate as a waiver of any provision of the Contract Documents, or any power therein preserved to Department, or of any right to damages therein provided. Any Waiver of any breach of this Contract shall not be held to be a waiver of any other or subsequent breach.

15.6.2 Department reserves the right to correct any error that may be discovered in any estimate that may have been paid, and to adjust the same to meet the requirements of the Contract Documents.

Department further reserves the right, should proof of Defective Work on the part of Contractor be discovered after the final payment has been made, to claim, and recover by process of law, such sums as may be sufficient to correct the error, or make good the defects in the Work.

- 15.6.3 Any waiver of any provision of the Contract Documents shall be specific, shall apply only to the particular item or matter concerned and shall not apply to other similar or dissimilar items or matters.

Affidavit and Release of Lien:

- 15.7.1 When the Work has been completed, Contractor shall execute a final release of Lien and an Affidavit declaring that all bills have been paid in full, and that the requirements of the New York State Labor Law have been complied with.
- 15.7.2 These documents will be furnished to Department on the forms provided by Department.
- 15.7.3 Contractor shall be responsible for obtaining and submitting these forms to Department for all subcontractors involved in the Work.

Recovery Rights Subsequent to Final Payment:

- 15.8 Department reserves the right, should an error be discovered in an Application for Payment or should proof of Defective Work or materials used by or on the part of Contractor be discovered after the final payment has been made, to claim and recover from Contractor or his Surety, or both, by process of law, such sums as may be sufficient to correct the error or make good the defects in the Work and materials.

General Guarantee:

- 15.9 Neither the final acceptance, nor final payment by Department, nor any provision of the Contract Documents, nor partial or entire use of the Work by Department, shall constitute an acceptance of Work not done in accordance with the Contract Documents or relieve Contractor of liability in respect to any express warranties or responsibility for faulty materials or workmanship. Contractor guarantees the remedy of all Defective Work and payment for all damage to other Work, persons or property resulting therefrom which shall occur within one year from the date of final acceptance unless a longer period is required by Contract Documents, by Law, or by standard practice. Department will give notice of observed Defective Work with reasonable promptness. Contractor shall ensure that its Surety shall be bound with and for Contractor in the faithful observance of this General Guarantee.

Audit; Access to Records:

- 15.10.1 In addition to the rights of access set forth in Appendix A, if Contractor has submitted Cost and Pricing Data in connection with the pricing of any Change Order, Proposed Change Order or Claim related to this Contract, Department and Engineer or any of their duly authorized representatives shall have the right to examine and audit all books, ledgers, records, and documents pertinent to all Cost and Pricing data available and relied upon by Contractor including but not limited to that used by Contractor in the determination of its Bid for the Work, in order to evaluate the accuracy, completeness, and currency of the Cost or Pricing data.

- 15.10.2 Contractor shall make available at Contractor's office at all reasonable times the materials described in paragraph 15.10.1 above, for examination, audit, or reproduction, until 6 years after final payment under this Contract.
- 15.10.2.1 If this Contract is completely or partially terminated, the records relating to the Work terminated shall be made available for 6 years after any resulting final termination settlement.
- 15.10.2.2 Records pertaining to appeals under Article 8 of Section VIII, "General Conditions," to litigation or the settlement of claims arising under or relating to the performance of this Contract shall be made available until disposition of such appeals, litigation, or claims.
- 15.10.3 A provision stating that all the requirements of this Article of Section VIII, "General Conditions" are applicable to Subcontracts under this Contract exceeding \$50,000 in value shall be inserted by Contractor in all such subcontracts.

Price Reduction for Defective Cost or Pricing Data:

- 15.11.1 This provision shall become operative only for any Change Order, or Proposed Change Order or claim settlement under this Contract involving aggregate increases and/or decreases in costs, plus applicable profits, of more than \$10,000; except that this provision shall not apply to any amendment to the Contract for which the price of the Work involved in the amendment is:
- 15.11.1.1 Based on adequate price competition;
- 15.11.1.2 Based on established catalog or market prices of commercial items sold in substantial quantities to the general public, or
- 15.11.1.3 Set by New York State law.
- 15.11.2 If any price, including profit, negotiated in connection with any Change Order, Proposed Change Order or claim settlement under this provision, was increased because: 1) Contractor or a Subcontractor, Supplier, other person or organization furnished Cost and Pricing Data that were not complete, accurate, and current as certified in its Certificate of Current Cost or Pricing Data; 2) a designated or prospective Subcontractor, Supplier, other person or organization furnished Contractor Cost and Pricing Data that were not complete, accurate, and current as certified in the Contractor's Certificate of Current Cost and Pricing Data; or 3) any of these parties furnished data of any description that were not accurate, the price shall be changed accordingly and the Contract shall be adjusted to reflect the change. This right to a change in Contract Price is limited to that resulting from defects in data relating to amendments to the Contract for which this provision becomes operative under paragraph 16.11.1 above.
- 15.11.3 Any decrease in Contract Price under paragraph 16.11.2 above due to defective data from a designated or prospective Subcontractor, Supplier, other person or organization that was not subsequently awarded the Subcontract or purchase order shall be limited to the amount, plus applicable overhead and profit markup, by which 1) the actual Subcontract or purchase order or 2) the actual cost to Contractor, if there was no Subcontract or purchase order, was less than the prospective Subcontract or purchase order, cost estimate submitted by Contractor; provided, that the actual Subcontract or purchase order price was not itself affected by defective cost or Pricing data.

- 15.11.4 Before awarding any Subcontract or purchase order which exceeds or can be reasonably expected to exceed \$150,000 when entered into, or pricing any Change Order or Proposed Change Order or claim settlement involving a pricing adjustment expected to exceed \$10,000, Contractor shall require the Subcontractor, Supplier, other person or organization to submit Cost or Pricing data (actually or by specific identification in writing), unless the price is:
- 15.11.4.1 Based on adequate price competition;
 - 15.11.4.2 Based on established catalog or market prices of commercial items sold in substantial quantities to the general public; or
 - 15.11.4.3 Set by New York State law.
- 15.11.5 Contractor shall require such Subcontractor, Supplier, other person or organization to certify in the form prescribed in the Contract Documents, that to best of its knowledge and belief, the data submitted under paragraph 15.11.4 is accurate, complete, and current as of the date of agreement on the negotiated price of the Subcontract, purchase order, Change Order, Proposed Change Order, or claim settlement affecting the Subcontract.
- 15.11.6 Contractor shall make the provisions of this Article applicable to all Subcontracts or purchase orders that exceed or can be reasonably expected to exceed \$150,000.

No Waiver:

- 15.12.1 The rights and remedies set forth in the Contract Documents are not exclusive and are in addition to any other rights and remedies provided by law or equity. The duties and obligations imposed by the Contract Documents and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by New York State law.
- 15.12.2 No act or omission by Department or Contractor shall constitute a waiver of any right or duty afforded any of them under the Contract Documents, nor shall any such act or omission constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing.

Comparable or Equivalent Terms:

- 15.13.1 Contractor warrants, represents and guarantees that all of the prices, terms, warranties and benefits granted to Department under the Contract are comparable to or better than the equivalent terms, prices, warranties and benefits offered to any other existing customer for similar Work.
- 15.13.2 In addition to the other remedies available, Department may demand repayment for any excess payment, plus interest thereon, for failure of Contractor to comply with paragraph 15.13.1.

Unlawful Provisions Deemed Stricken:

- 15.14.1 If the Contract Documents contain any unlawful provisions, such unlawful provisions shall be of no effect. Any provision determined to be unlawful by a court of competent jurisdiction, shall be deemed stricken from the Contract Documents without affecting the validity of the remaining provisions of the Contract Documents.

All Legal Provisions Included:

- 15.15.1 All provisions of Law required to be included in the Contract Documents shall be and are inserted herein. If through mistake, neglect, oversight or otherwise, any such provision has not been included or included in improper form, upon the application of either party, the Contract Documents shall be amended in writing at no increase in Contract Price nor extension in Contract Time, so as to comply with the Law.

No Estoppel:

- 15.16 Department or any officer, employee, servant or agent thereof, shall not be estopped, bound or precluded by any determination, return, decision, approval, order, letter, payment or certificate made or given by Engineer or any other officer, employee, servant or agent of Department, at any time, either before or after final completion and acceptance of the Work and payment therefor:
 - 15.16.1 From showing the true and correct amount, classification, quality, and character of the Work completed and materials furnished by Contractor or any other person under the Contract, or from showing at any time that any determination, return, decision, approval, order, letter, payment, or certificate is untrue and incorrect, or improperly made in any particular, or that the Work or the materials or any part thereof, do not in fact conform to the Contract Documents; or,
 - 15.16.2 From demanding the recovery of any overpayments made to Contractor, or such damages as Department may sustain by reason of failure to perform each and every term, provision or condition of the Contract in accordance with its terms.

Prohibited Interests:

- 15.17 No official of Department who is authorized in such capacity on behalf of Department to negotiate, make, accept or approve or to take part in the negotiating, making or approving any architectural, engineering, inspection, construction or material supply contract or any Subcontractor in connection with the Work or the Project of which the Work is a part, shall be knowingly permitted by Contractor to become directly or indirectly interested personally in this Contract or in any part thereof. No officer, employee, architect, attorney, engineer or project representative of or for Department who is authorized in such capacity and in behalf of Department to exercise any executive, supervisory or other similar function in connection with the Work or the Project of which the Work is a part shall be knowingly permitted by Contractor to become directly interested personally in this Contract or in any part thereof.

No Third Party Beneficiary:

- 15.18 Contractor acknowledges and agrees that it is not a third party beneficiary to any other agreement between the Department and any third party and/or any work product prepared or work performed for the Department by any third party, including but not limited to the contract between and/or work or work product performed by the Engineer; that nothing in the bid documents or the contract document shall be construed so as to give the contractor any legal or equitable claim, right or remedy against any other party with whom the Department has contracted, including but not limited to the Engineer; that nothing in any separate agreement between Department and any third party, including but not limited to the Engineer shall be construed to give the contractor any legal or equitable claim, right or remedy against such third party; rather such agreements are acknowledged and agreed to be intended to be for the sole exclusive benefit of the parties thereto. Contractor

further acknowledges and agrees that its sole rights and remedies in connection with its bidding and performance of the work to be performed by it under the bid documents and contract documents are limited to such rights and remedies as are provided under the bid documents and contract documents. Further, contractor acknowledges and agrees that no claim against any third party, including but not limited to the Engineer, which is in separate contractual privity with the Department, shall arise out of such contractor's or the Engineer's performance of services for the Department pursuant to such separate contract.

Nothing herein shall release or waive any direct claim which the Department may have against any such separate contractor, including the Engineer, pursuant to the terms of the Department's contract with such third party.

Should any direct claim be brought by contractor against any third party in separate direct contractual relationship with the Department, contractor agrees to reimburse to the Department and to such separate contractor, including Engineer, their reasonable and necessary costs, including legal fees, incurred in the defense of such claim or claims.

SECTION IX

Supplementary Conditions

None

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SECTION X

Standard Specifications

00001	Progress Schedule
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00003	Minimum Requirements for Health and Safety

SECTION X - Standard Specifications

SPEC 00001 *Progress Schedule*

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SECTION X

Standard Specifications

SPEC 00001

Progress Schedule

1) *Terms and Definitions*

The terms listed below (or pronouns in place of them) have the following intent and meanings which are applicable to both the singular and plural thereof.

- a) **Activity** - A part of the Work identified in the Progress Schedule, assigned a description, duration, certain codes, and other related Shop Drawing data, and Cost and Pricing data, and evaluated to start and finish in accordance with Early and Late Schedules.
- b) **Activity, Critical** - An Activity is considered to be Critical when it is evaluated to have the minimum value of Total Float Time available in the Progress Schedule.
- c) **Activity, Value** - That portion of the contract Price which represents a fair value for the part of the Work identified by that Activity.
- d) **As-Built Schedule** - Term used to denote record schedule drawings and data substantiating how the Work was performed as to timing, sequencing and rate of progress.
- e) **Bar Chart Diagram** - A graphical representation of how the Work is to be performed as shown by timing each activity between a single choice of anticipated start and finish dates.
- f) **Critical Path** - The sequence of Critical Activities from the Date for Commencement of the Contract Time, or Contract Times, to Substantial Completion of the Work, or part thereof.
- g) **Critical Path Method Diagram** - A graphical representation of how the Work is to be performed as represented by the sequencing and timing of the Activities. A CPM Diagram shall either follow an "arrow" (I-J) format, wherein the start of an Activity is dependent upon the finish of preceding Activities, or a "precedence" format, wherein either the start or finish of an Activity is dependent upon either the start or finish of preceding Activities.
- h) **Dummy restraints** - Activities not identifying a part of the Work, and used to preserve proper logic sequencing, avoid duplicate Activity numbering, to enforce Work Sequences indicated in or required by the Contract Documents, or to achieve other preferential sequencing chosen by **Contractor**.
- I) **Duration (Activity)** - Estimated or required time of performance for the part of the Work represented by that Activity.

- j) **Free Float** - Working days by which an Activity may be delayed from its Early Schedule, without delaying any other Activities from their Early Schedules.
- k) **Contract Float** - Working days between the date(s) for Substantial Completion shown for the Work, or part thereof, in **Contractor's** anticipated Early Schedule, and the corresponding Contract Time or Contract Times.
- l) **Total Float** - Working days between the Early Schedule and the Late Schedule for an Activity by which that Activity may be delayed without necessarily extending the Contract time, or Contract Times.
- m) **Early Schedule (Late Schedule)** - The proposed Early Dates (Late Dates) of performance for the parts of the Work represented by the Activities. The Early dates are predicated on proceeding with the Work, or part thereof, exactly on the date when the Contract Time, or applicable Contract Time, commences to run; and the Late dates are based on achieving Substantial Completion of the Work, or part thereof, exactly on the Contract Time, or applicable Contract Times.
- n) **Percent Complete** - That portion of an Activity which when multiplied by the Activity Value will yield a fair proportion of the Contract Price for that part of the Work completed.
- o) **Preferential Logic** - **Contractor's** approach to sequencing of the Work over and above those sequences indicated in or required by the Contract Documents. Examples include equipment restraints, crew movements, form reuse, special logic (lead/lag) restraints, etc. factored into the Progress Schedule instead of disclosing the associated Float Times.

2) **Requirements Included**

- a) Pursuant to the requirements of the Contract Documents, **Contractor** shall prepare and submit, finalize, and periodically adjust the Progress Schedule as required herein.
- b) This Section of the Specifications requires **Contractor** to plan, manage, schedule and execute the Work in accordance with a Progress Schedule meeting the requirements of the Contract Documents; that **Contractor's** Progress Schedule stay current with **Contractor's** approach to performing Work remaining; that the Progress Schedule, when approved, be jointly used by **Owner**, **Engineer** and **Contractor** to substantiate or mitigate the impact of delays and Change Orders; and that **Contractor** prepare record schedule drawings and data showing how the Work is being performed as to sequencing, timing, and rate of progress.

3) **Bar Chart Description**

- a) A Bar Chart Diagram does not show express logic ties, nor does it compute Early or Late Dates as defined above. Although a Bar Chart Diagram may show Contract Float time, it does not disclose Activity Total Float values.

- b) Total Float and Contract Float are not for the exclusive benefit of **Owner, Engineer, Contractor**, or others, but is time available to all parties as needed for the Contract as a whole. Such Float times shall be shared between **Owner, Engineer, Contractor** and others to absorb delays which could not be mitigated by any other reasonable means.
- c) Activity representative quantities, Activity Value, Activity Percent Complete data, Activity Value of Work performed, and the applicable Value of significant subcomponents. The sum of all Activity Values shall equal the corresponding Contract Price for the Work. The sum of all Activity Values for Work performed divided by the Contract Price shall equal the Percent Complete for the Work.

4) ***Critical Path Method (CPM) Description***

- a) The Progress Schedule shall be based on the Critical Path Method (CPM) of planning and scheduling, and prepared, finalized, and revised in accordance with the principles, definitions and terms described hereafter and those standards of the industry for CPM scheduling which are not in conflict with this Specification.
- b) CPM Diagrams shall show in detail the priority, sequencing and interdependence of Activities, and the sequence in which the Work is to be accomplished to: a) to comply with the Contract Time(s), named allowances, and those sequences of Work indicated in or required by the Contract Documents; b) to anticipate foreseeable events that may in any manner affect cost, progress, schedule, performance, and furnishing of the Work; and c) to reflect the means, methods, techniques, sequences, and procedures of construction anticipated by **Contractor**, subject to the limitations on Float sequestering set forth by this Specification.
- c) Total Float and contract Float are not for the exclusive benefit of **Owner, Engineer, Contractor, OR OTHERS**, but is time available to all parties as needed for the Contract as a whole. Such Float Times shall be shared between **Owner, Engineer, Contractor** and others to absorb delays which could not be mitigated by any other reasonable means. Use of Float Time shown in the approved progress Schedule for interim milestones or Contract Times will be available to **Owner**, if required to effect proper interfacing between work performed.
- d) Use of float suppression techniques such as preferential sequencing, special lead/lag logic restraints, extended Activity times, imposed Activity dates, scheduling items of Work required for Final Completion as though they were prerequisites to Substantial Completion, and others, and 2) use of Float time disclosed or implied by the use of alternate Float suppression techniques will be allowed, provided: a) that **Contractor** not engage in Float manipulations which have the net effect of "sequestering" Float, that is to reduce unilaterally otherwise available Float Time by more than 50 percent; and b) that **Contractor** agrees that in order to mitigate the impact of delays to the Work, or parts thereof, adjustment or removal of such Float suppression techniques will be a prerequisite to consideration of any requests for compensation for delay or acceleration or for extensions in Contract Time.
- e) The finalized Schedule of Values will be acceptable to **Engineer** as to form and substance, and will serve as the basis for progress payments.

- f) The finalized Schedule of Shop Drawing submissions will be acceptable to **Engineer** as providing a workable arrangement for processing the submissions.

5) ***Progress Schedule Submittals for CPM Schedules***

- a) All CPM Diagrams, Schedule of Values, Schedule of Shop Drawing submissions, associated computer reports, and narratives submitted by **Contractor** shall be consistent with the requirements of this Specification.
- b) The "Preliminary" submittal set shall consist of:
 - 1) A CPM Diagram and associated Schedule of Values and a supporting narrative.
 - 2) A User Manual for the scheduling software to be used by **Contractor** for the purposes of computation of the Progress Schedule.
- c) The "Interim" submittals shall consists of the interim CPM Diagram and associated Schedule of Values and Schedule of Shop Drawings submissions and a supporting narrative.
- d) The "Detailed" submittal set shall consist of:
 - 1) The Detailed CPM Diagram, and the reports associated with the Schedule of Values, and Schedule of Shop Drawing submissions, and a supporting narrative.
 - 2) The five associated Activity reports described in paragraph 18.A sorted by each of the first four sequencing criteria described in paragraph 18.D.
- e) "Status" submittal sets shall consist of "mark-up" versions of the current Detailed CPM Diagram, Schedule of Values, and Schedule of Shop Drawings, together with a supporting narrative.
- f) "Update" submittal sets shall consist of revised Detailed CPM Diagrams, Schedule of Values and Schedule of Shop Drawings, the six associated computer reports, a detailed **Contractor's** Cost report, and a supporting narrative.
- g) The "Contract Completion" submittal set shall consist of the Detailed Contract Completion Schedule, and associated computer reports.
- h) The "As-Built" submittal set shall consist of the As-Built CPM Diagram, and a "Schedule Reconciliation" report.

6) ***Quality Assurance of Progress Schedule***

- a) **Engineer** will review and if acceptable, approve the Progress Schedule.
- b) In preparing a version of the Progress Schedule, pursuant to paragraph 1.6 of the General Conditions and Supplementary Conditions, it is the responsibility of **Contractor** 1) to inspect the preaward "Preliminary Progress Schedule" submitted in compliance with Article 11 of Section III of the Contract Documents, 2) to verify site conditions that may in any manner affect cost, scheduling, progress, performance and furnishing of the Work,

3) to work with each major Subcontractor, Supplier, or other relevant person or organization to obtain information on Activities, sequencing, and Activity Durations for incorporation into the Progress Schedule, and 4) to request and obtain written interpretations from **Engineer** as needed.

c) The Detailed Progress Schedule shall break down the Work into Activities in sufficient detail to identify clearly all individual parts of the Work and those factors which may in any manner affect the cost, schedule, progress, performance, and furnishing of the Work. At a minimum, the break down of the Work in the detailed Progress Schedule submittal for CPM schedules only, shall delineate the following:

- 1) Those Activities designating the date for commencement of the Contract Time, or Contract Times; those Activities leading to Substantial Completion of the Work, or parts thereof; and those Activities identifying parts of the Work to be performed or furnished leading from Substantial Completion to Final Completion.
- 2) All special Work sequences, schedule milestones, intermediate Contract Times, and named allowances set forth in the Contract Documents.
- 3) Items pertaining to securing prerequisite permits and approvals from those agencies with jurisdiction over Work to be performed under the Contract.
- 4) All items of Work involved in the preparation, submittal, review and approval of Shop Drawings and samples required by the Specifications.
- 5) Appropriate times required for the fabrication, delivery, receipt and inspection, and storage of items of materials and equipment.
- 6) Work associated with installation, erection and other field construction activities.
- 7) Items of Work required to work around existing physical conditions and Underground Facilities which are at or contiguous to the site including the time for permanent or temporary relocation of such existing physical conditions and/or underground facilities.
- 8) Items of interface which relate to the responsibilities of **Owner**, **Engineer** or other contractors performing work under separate contracts with **Owner**.
- 9) Work required to implement cut-offs or closures, power shutdowns or temporary or permanent take-down or interruptions to existing facilities or affecting the operations of **Owner**, utilities or similarly involved third-parties. Specific dates when such cut-offs, etc. are to take place shall be shown as milestone dates on the appropriate Activities.
- 10) All items of Work related to shop and field testing, associated trimout activities and specified manufacturer or supplier training required prior to placing the facilities in service, including but not limited to manufacturer or supplier installation checks; leak, disinfection and pressure tests; removal or erection of temporary components; tie-ins; flushing and chemical/mechanical cleaning operations; specified performance tests; and other necessary non-operating tasks adjustments, cold-alignment checks, corrections, housekeeping and spare parts stocking required of **Contractor** to conform to the Pre-operational testing

requirements of the Contract Documents.

- 11) All items of Work associated with the performance of the Start-Up Testing requirements of the Contract Documents, including, but not limited to, trial operation tests and operator training, performance tests under simulated and design operating conditions, emission testing, final acceptance or guarantee tests.
 - 12) Work related to the tentative list of items to be completed or corrected before and subsequent to Pre-operational, Startup Testing and Final Testing.
- d) The following limitations shall also apply to the selection and scoping of Activities for CPM schedules only:
- 1) Activity Durations shall be in working days and represent **Contractor's** best estimate of the time required for completion based on the Work included and the resources planned for that Activity. The computation of the Activity dates shall be based on a calendar recognizing the applicable holidays and the limitations on Work during hours other than the normal working hours set forth in the General Conditions and the Supplementary Conditions.
 - 2) Unless otherwise provided in the Special Progress Schedule Requirements, all Activities, except those identifying Work related to Shop Drawings and deliveries, shall span twenty working days or less, and their Values shall not exceed \$45,000. Duration requirements for Activities identifying Work related to **Engineer's** review of Shop Drawing or sample submissions are prescribed in the Special progress Schedule Requirements.
 - 3) Installation Activities shall not combine Work located in separate structures, buildings or facilities, nor Work corresponding to different Divisions of the Specifications. Submittal and associated delivery Activities shall identify each submittal required by the Sections of the specifications. Activities identifying Work in connection with Pre-Operational or Start-up Testing shall not combine Work pertaining to the different Division within the specifications.
 - 4) Reference is made to Article 1.11 of this specification for the identification of allowances and their incorporation into the Progress Schedule.
 - 5) Items that qualify as (a) on-site stored materials, fixtures and equipment and (b) undelivered equipment, shall be separately identified on the Progress Schedule.
- 7) ***References for CPM Schedules***
- a) The text "Precedence and Arrow Networking Techniques for Construction," by R.B. Harris (Wiley, 1978), provides principles, definitions and terms common to CPM arrow and precedence diagrams, and schedule computations therefrom.
 - b) The provisions of this Section are binding on **Contractor** in the event of a conflict between the Standard Specifications and this Specification.
- 8) ***Review of Progress Schedule Submittals***

- a) **Engineer's** and **Owner's** review of **Contractor's** Progress Schedule submittals will be only for conformance with the Contract Time(s), those sequences of Work indicated in or required by the Contract Documents, the Float sharing concepts established in the Contract Documents, and for compliance with the requirements of this Specification and the information given in the Contract Documents. **Engineer's** and **Owner's** review, comments and exceptions taken, if any, shall not extend to, nor constitute directions nor approval of, the means, methods, techniques, sequences, or procedures of construction or safety precautions, the correctness of which shall be the sole responsibility of **Contractor**.
- b) **Engineer's** and **Owner's** review of progress schedule submittals will be predicated on a **Contractor's** stamp of approval signed off by **Contractor**. **Contractor's** stamp of approval on Progress Schedule submittals shall constitute a representation to **Owner** that **Contractor** has either determined or verified all data on the Progress Schedule submittal, or assumes full responsibility for doing so, and that **Contractor** and his Subcontractors, Suppliers or other persons or organizations have reviewed and coordinated the sequences shown in the Progress Schedule with the requirements of the Work under the Contract Documents.
- c) **Engineer's** and **Owner's** review will not be intended to be for the purpose of determining the accuracy of other matters that may be contained in the submittals. When the review of a Progress Schedule results in a number of comments or exceptions taken, **Engineer** and **Owner** does not warrant that these comments are inclusive of all variations, as it shall remain the responsibility of **Contractor** to meet the requirements of the contract documents and to identify expressly any proposed variations.
- d) **Engineer's** and **Owner's** review of progress schedule submittals shall not relieve **contractor** from responsibility for any variations from the requirements of the Contract Documents unless **Contractor** has in writing, by means of a specific notice, called **Engineer's** attention to each variation, and **Engineer** has given written approval of each such variation by a specific written notation thereof incorporated in or accompanying the Progress Schedule submittal.
- e) **Engineer's** approval of Progress Schedule submittals will not relieve **Contractor** from responsibility for errors and omissions in the submittals or from responsibility for having complied with the provisions of General Conditions and Supplementary Conditions. Approval of a Progress Schedule with undisclosed variations or errors such as omitted Work or erroneous sequences will not relieve **Contractor** from completing the omitted or impacted Work within the applicable Contract Time(s).
- f) Progress Schedules that include Activities with negative Float Times, or Activities scheduled beyond the applicable Contract Time(s), will not be approved until a specific Change Order or Proposed Change Order authorizing appropriate changes to the impacted Contract Time(s) is agreed upon between **Owner** and **Contractor**.
- g) When reviewed by **Engineer** and **Owner**, each progress schedule submittal will be returned stamped as either "approved," "approved as noted," "resubmit with revisions," or "disapproved." Submittals stamped as "approved" or "approved as noted" will indicate approval thereof, subject to the limitations set forth, and will be considered to represent the approved progress schedule as of the date in the approval stamp until an updated progress schedule is submitted by **Contractor** and approved by **Owner** and **Engineer**.

- h) If **Contractor** believes that **Engineer's** approval of a progress schedule justifies an increase or decrease in contract price or an extension or shortening in contract time, **Contractor** shall be required to deliver a proposed change order thereof to **Engineer** in accordance with the provisions of article 9 of the general conditions. If **Owner** and **Contractor** are unable to agree as to amount and extent thereof, a claim may be made pursuant to Articles 10 and 11 of the General Conditions.
- I) Costs associated with **Engineer's** and **Owner's** review and return of a progress schedule submission after the **Engineer's** second time review shall be borne by **Contractor**. **Owner's** charges to **Contractor** for additional reviews will be equal to **Engineer's** charges to **Owner** under the terms of **Engineer's** agreement with **Owner**. In the event **Contractor** fails to pay such costs within 30 days after receipt of an invoice from **Owner**, a change order or proposed change order will be issued incorporating the unpaid amount, and **Owner** will be entitled to an appropriate decrease in Contract Price.
- j) No partial submittals will be reviewed. Submittals not complete will be returned to **Contractor** for resubmittal.

9) ***Delays and Recovery***

- a) Reference is made to the General Conditions and the Supplementary Conditions for Contract requirements related to delays, conditions warranting extensions in Contract Time(s), and conditions applicable to reimbursement for delay costs.
- b) Whenever **Contractor** fails to complete an activity within its late date on the approved progress schedule, **Contractor** shall, within five days or with the next application for payment, whichever comes earlier, submit a written statement to **Engineer** describing the cause for the slippage in the Activity and the actions being considered by **Contractor** to recover the time lost and to prevent or mitigate any derived slippage beyond the applicable Contract Time(s).
- c) A written schedule recovery statement shall include, but not be limited to, such actions as overlapping of dependent Activities, sequencing changes to accommodate increased Activity concurrency, assignment of additional labor or equipment, shift or overtime Work, expediting of submittals or deliveries, or any combination of the foregoing.
- d) If **Contractor** refuses, fails or neglects to submit a required written schedule recovery statement, **Owner** may, at its option, withhold additional retainage pursuant to the Contract Documents and/or initiate default termination proceedings in accordance with Contract Documents or request **Engineer** to identify and to order alternate recovery actions on the basis of the information in the current Progress Schedule. If **Contractor** believes that a written order to recover schedule from **Engineer** justifies an increase in Contract Price or an extension in Contract Time, **Contractor** shall be required to deliver a written request thereof in accordance with the provisions of Article 9 of the General Conditions. If **Owner** and **Contractor** are unable to agree as to responsibility for the slippage in the schedule or the amount and extent thereof, a claim may be made pursuant to Articles 10 and 11 of the General Conditions.

10) ***Early-Completion Progress Schedules***

- a) Progress Schedules anticipating achievement of Substantial Completion ahead of the

corresponding Contract Time(s), and disclosing appropriate Contract Float Time(s) for the Work, or parts thereof, shall be considered equivalent or equal to Progress Schedules anticipating Substantial Completion exactly on the Contract Time(s). In accordance with requirements of the Contract Documents, the contract Float Time in these equivalent or equal Progress Schedules will be available to **Owner, Engineer, Contractor** and others to absorb delays to the Work as a whole which cannot be mitigated by any other means.

- b) Progress Schedules anticipating achievement of Substantial Completion ahead of the corresponding Contract Time(s), but with zero Contract Float as opposed to positive Contract Float, will be returned as either "Approved as Noted," "Resubmit with Revisions," or "Disapproved." Submittals stamped as "Approved as Noted" will indicate **Engineer's** approval thereof, subject to the limitations set forth, including **Engineer's** computation of the appropriate Contract Float implied by the anticipated early completion.
- c) If upon approval (or approval as noted) by **Engineer** of a Progress Schedule with disclosed or implied Contract Float Time, **Contractor** disputes the availability of Contract Float and proposes that compensation for delay shall be measured from the anticipated early completion date(s) as opposed to the corresponding Contract Time(s), **Contractor** agrees and understands that said proposal will represent a request to **Owner** that the approved Progress Schedule be evaluated as a substitute Progress Schedule for the purposes of changing the Contract Time(s) to those supported by the **Contractor's** early-completion Progress Schedule. Evaluation of that substitution will be in accordance with the requirements of paragraphs 5.7.1, 5.7.2 and 5.7.3 of the General conditions, and will require additional supporting data that explains and substantiates the basis of the anticipated Early Schedules. Such supporting data shall consist of: 1) notice of any scheduled Work during hours other than normal work hours, 2) information related to rates of production including pertinent quantities, crew sizes, man-day requirements, major items of equipment, etc., for Critical and other significant Activities, 3) express or implied contingency allowances figured in for Activities for such factors as weather, delays, activities of **Owner AND Engineer** to respond to reports of differing site conditions, and other relevant factors. Acceptance of that substitution will be evidenced by a Change Order shortening the Contract Time, or Contract Times accordingly, but maintaining the Contract Price and the provisions for liquidated and actual damages set forth in the Agreement.

11) ***Cash Allowance - Scheduling Subcontractor***

- a) It is understood that **Contractor** has included in the Contract Price the allowance stipulated in the Bid Form so named in the Contract Documents and shall cause the Work so covered to be done by the Scheduling Subcontractor and for such sums within the allowance as maybe acceptable to **Owner** and **Engineer**.
- b) It is also understood that **Contractor** has included in the Contract Price sufficient funds to cover all costs in excess of the allowance in connection with Work to be done by the Scheduling Subcontractor.

- c) **Contractor's** costs for administering the performance of Work by the Scheduling Subcontractor, for participating in the preparation of the required progress Schedule submittals, for overhead, profit and other expenses contemplated for the allowance have been included in the Contract Price for the Work and not in the allowance for the Scheduling Subcontractor. No demand for additional payment on account of any costs thereof will be valid.

12) ***Time Allowance Requirements for Document Review and Other Activities***

- a) **Contractor** shall make allowances for time required for a) document review and approval of submittals of Shop Drawings and samples specified in this Specification, b) the requirements for anticipated repeat submissions for particular items of materials or equipment, and c) the requirements for anticipated or required time intervals for the performance of specific parts of the Work by **Contractor**.
- b) **Contractor** shall make allowances for time required by a) those other activities indicated in or required by the contract Documents which are the responsibility of **Owner** or **Engineer**, b) the potential time requirements of **Owner** and **Engineer** to investigate instances of potential differing site conditions, and c) those other named time allowances required by the Contract Documents.
- c) It is understood that **Contractor** has included in the Contract Price the effect of accommodating all of these time allowances and requirements in the planning, scheduling and execution of the Work; that **Contractor's** Progress Schedule will incorporate Activities and sequences contemplated by the time allowances based on the information indicated in or required by the Contract Documents; and that **Contractor** shall cause the Work or requirements covered by such time allowances to be done within the limits of the Contract Time(s).

13) ***Measurement and Payments***

- a) All costs in connection with these requirements, including the Work to be performed by the Scheduling Subcontractor, shall be borne by **Contractor**. Payments made to **Contractor** under the allowance for the Scheduling Subcontractor provided for in paragraph 11.A shall be disbursed in their entirety to the Scheduling Subcontractor.
- b) Payments for Work performed under this Section of the Specifications will be made pursuant to Article 9 of the Agreement. Payment for Work performed shall be in accordance with the schedule of payments in the Special Progress Schedule Requirements.

14) ***Compliance***

- a) If **Contractor** refuses, fails or neglects to provide the required Progress Schedules or related schedule, Pricing and cost data, Shop Drawing data, or schedule recovery data, he will be deemed not to have provided sufficient information to **Engineer** upon which progress can be evaluated, and **Engineer** may refuse to recommend the whole or part of any outstanding payment if, in the **Engineer's** opinion, it would be incorrect to make such representations to **Owner**. Further, and pursuant to the Article 14 of the General Conditions, **Owner** may refuse to make payment of those amounts recommended by **Engineer** because of **Contractor's** failure or refusal to provide the required Progress Schedule and related submittal data.

15) ***Acceptable CPM Diagrams***

- a) Interim and Detailed CPM Diagrams shall be based on an arrow or precedence diagram format, and sequenced by the separate structures, facilities, buildings or site areas.
- b) CPM Diagrams shall be allotted on a time-scaled calendar and expressly identify: 1) the Contract Times, 2) the approach taken to comply with the Work Sequence conditions, 3) the Critical Path(s), and 4) all Activities. Activities shall be shown on their Early Schedule, and their total Float Times noted beside them.
- c) CPM Diagrams shall include title blocks identifying the name and location of the Project, Contract designation, names of **Owner, Engineer, Contractor** and Scheduling Subcontractor, Progress Schedule issue number and date, and sheet title. Diagram sheets shall be dimensioned as the full-size Contract Drawings, be neat and legible and submitted on a medium suitable for reproduction. Connections between Activities on different sheets shall be shown on the different sheets of the CPM Diagrams to allow a complete schedule document.

16) ***Acceptable Activity Schedule Data for CPM Diagrams***

- a) Activity schedule information shall, at a minimum, include the following data:
 - 1) Activity identified, i.e., I-J numbers in arrow format, or alphanumeric numbers in precedence format, such that not more than one Activity, dummy, or restraint may have the same identifier.
 - 2) Activity Description for each Activity, dummy or preferential restraint shall fully convey the scope of the Work included.
 - 3) Special Activity codes designating: a) location of the Work, e.g., site areas, elevations, etc., b) Work breakdown, e.g., process, trade, performing organization, c) responsibility, e.g., **Contractor, Owner**, Subcontractors, etc., d) as-awarded from amended (added or deleted by a Change Order or Proposed Change Order) items of Work.
 - 4) Activity labor requirements, based on a proportionate share of the (direct) labor manhours and quantities in the associated items from the Contract Price Breakdown developed pursuant to the requirements of the Supplementary Conditions.
 - 5) The use of start or finish restraint dates must be annotated as to the basis for the chosen restraints.

17) ***Acceptable Activity Value and Shop Drawing Data***

- a) Activity data pertaining to the Schedule of Values shall at a minimum include the following for each Activity:
 - 1) Activity code and description as on the CPM Diagram.

- 2) Activity representative quantities, Activity Value, Activity Percent Complete data, Activity Value of Work performed, and the applicable Value of significant subcomponents. The sum of all Activity Values shall equal the corresponding Contract Price for the Work. The sum of all Activity Values for Work performed divided by the Contract Price shall equal the Percent Complete for the Work.
 - 3) Activity Values shall breakdown Value for anticipated stored materials from Value for Work installed, as applicable.
 - 4) Cost of equipment or materials to be incorporated in the Work shall be assigned to the appropriate fabrication and delivery Activities.
- b) Activity data pertaining to the Schedule of Shop Drawing submissions shall at a minimum include the following for each Activity:
- 1) Activity code and description as on the CPM Diagram.
 - 2) A list of specific submissions, Specification Section, Contract Drawing sheet numbers, and applicable submission dates.
- c) The Schedule of Values and the Schedule of Shop Drawing submissions shall be provided on forms acceptable to **Engineer**.

18) ***Acceptable Scheduling Software***

- a) **Contractor's** evaluation of the CPM Diagrams shall be based on scheduling software meeting the data management, computational, and reporting requirements of this Specification. Activity reports provided by the scheduling software selected shall, at a minimum, display the following data for each Activity, dummy, or restraint:
- 1) Activity identifier, activity description, activity duration, activity man-days, computed or restrained Early Start date, computed Early Finish date, computed Late Start date, computed or restrained Late Finish date, Total Float and Free Float, Activity Value, Percent Complete, Activity Value for Work performed, and associated Activity list items (e.g., Shop Drawing submissions).
 - 2) Dates shall be in calendar form. Contract Times representing Substantial Completion requirements shall be set as restrained Late Finish Dates where applicable; Contract Times representing Commencement of Work conditions shall be shown as restrained Early Start Dates as applicable. Contract Float times shall be computed and shown pursuant to the definition in Attachment A.
- b) If the CPM Diagram is based on the precedence format, an additional computer report tabulating the sequences on the Diagram shall be provided showing: a) each Activity together with a listing of all of its preceding and succeeding Activities, and b) the relationship type, lead/lag types, and lead/lag times between each Activity and each of its preceding and succeeding Activities.
- c) The scheduling software shall have the capability of sorting out computer reports by the special Activity codes designated in 17(a) above.
- d) The scheduling software shall have the capability of sequencing computer reports by:

- 1) Activity identifier, in order of ascending I-J number.
 - 2) Activity identifier, in order of descending J-I number.
 - 3) Total Float, in order of ascending Total Float values, and by ascending Early Start Dates, or by ascending I-J numbers, or by descending J-I numbers, within the same Total Float values.
 - 4) Early Start dates in chronological order of Early Start dates, and by ascending I-J numbers within the same Early Start Dates.
 - 5) Late Finish dates, in chronological order of Late Finish Dates and by descending J-I numbers within the same Late Finish Dates.
 - 6) Change Order or Proposed Change Order No.
- e) In addition to the ability to process the required Activity data, the scheduling software shall offer the following features: a) the capability of accepting and processing schedules with actual start and actual finish dates for the Activities; b) processing of CPM schedules with negative Total Float values; c) printing or plotting of rate of progress data, such as labor utilization and payment curves; d) the ability of drawing CPM Diagrams using plottergraphics.

19) ***Acceptable Progress Schedule Narratives***

- a) A narrative shall include sufficient information to substantiate the basis of the data used to develop that Progress Schedule submittal, and detail:
- 1) The status of the Progress Schedule in terms of number of days ahead or behind the Contract Time, or Contract Times.
 - 2) The progress status (i.e., progress achieved vs. that forecasted) for a) Activities designating accomplishment of Substantial Completion, b) Critical and other significant Activities, c) Work related to achieving milestones set forth by the Work Sequences indicated in or required by the Contract Documents, d) long-lead delivery items of material or equipment.
 - 3) The assumptions made in incorporating Work related to pending or authorized Change Orders and Proposed change Orders.
 - 4) Actual or potential delays, including causes, the steps taken or anticipated to mitigate their impact, and the anticipated effect on the Progress Schedule as a whole.
 - 5) Schedule recovery statement describing actions under consideration by **Contractor** to recover from a negative float or overrun in Late Finish Date condition.

- 6) Any significant changes in Progress Schedule sequences, and their basis thereof. Significant sequencing changes shall be those affecting Critical Activities, or causing a substantial reduction or increase in the Total Float Times available.
- 7) **Owner** and **Engineer** Activities which become due over the next two months on account of **Contractor's** requirements for performing Work which follows such **Owner** and **Engineer** Activities.
- 8) Rate of progress or "momentum" curves showing: a) the anticipated levels of labor utilization, e.g., man-days per week, and b) the anticipated level of payments for Work to be performed, all in accordance with the Activity time frames supported by the Early and Late Dates in the Progress Schedule.
- 9) Other information relevant to or of concern in the planning, scheduling and execution of Work over the next two months.
- 10) **Contractor's** responses to **Engineer's** comments raised in the review of the previous Progress Schedule submittal.
- 11) Actions taken to address schedule noncompliance issues which have negated **Engineer's** approval of a previous Progress Schedule submittal.

20) ***Acceptable Contractor's Cost Data***

- a) Cost data for inclusion in the **Contractor's** Cost reports required with each Progress Schedule Update submittal shall detail Contract financial and budget data available to and customarily relied upon by **Contractor** to monitor financial and cost performance.
- b) Acceptable financial and cost data for each cost account used by **Contractor** to apportion the contract Price to separable parts of the Work shall include:
 - 1) Account number and description.
 - 2) Account estimate data, identifying labor, material and equipment, and Subcontract costs for that account is included in the **Contractor's** Bid estimate, together with the sum increase or decrease in associated authorized Change Orders or Proposed Change Orders, and those sums anticipated by proposed Change Orders in negotiation or claims pending resolution.
 - 3) Current labor, material and equipment, and Subcontract cost data for the account; percent complete for the Work designated by that account; and **Contractor's** current forecast of the cost to complete Work designated by the account.

*** END OF SECTION ***

SECTION X - Standard Specifications

SPEC 00002 *Concrete*

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SECTION X - Standard Specifications

SPEC 00002

Concrete

1) *General*

1.1 *Scope of Work*

- a) The Contractor shall furnish all labor, materials, equipment, and incidentals needed for the cast-in-place and/or precast concrete required by the Contract Documents and as herein specified.

1.2 *Submittals*

- a) Cast-in-place concrete.
 - 1) Name and location of batch plant.
 - 2) Design mix.
 - 3) Shop drawings indicating placement of all reinforcing inserts, location of joints, sealing of joints, etc.
 - 4) Submittal on grating and frame.
- b) Precast concrete
 - 1) Name and location of precaster.
 - 2) Submittals of precast units.
 - 3) Certifications of design for loading.
 - 4) Submittal on manhole frame and cover.

1.3 *Quality Assurance*

- a) Codes and Standards
 - 1) Comply with the provisions of the following codes and standards, except as otherwise shown or specified:
 - a) ACI 301 - "Specifications for Structural Concrete for Buildings."
 - b) ACI 318 - "Building Code Requirements for Reinforced Concrete."
 - c) CRSI - "Manual of Standard Practice."
 - d) ACI 305 - "Recommended Practice for Hot Weather Concreting."

- 2) Where provisions of the above codes and standards are in conflict with the building code in force for the project, the more stringent code shall apply.

2) ***Products***

2.1 **Cast-In-Place Concrete**

- a) Portland Cement - ASTM C 150, Type III.
- b) Aggregates - ASTM C 33
 - 1) Fine aggregates - clean, sharp, natural sand free of dune sand, bank run sand, manufactured sand, loam, clay, etc.
 - 2) Coarse aggregate - clean processed natural limestone free of all foreign matter.
- c) Water - clean, fresh, free of all oils, acids organics, etc.
- d) Admixtures.
 - 1) Air-Entraining - ASTM C 260.
 - 2) Water-Reducing - ASTM C 494.
 - 3) Floor sealer - Sonoglaze is manufactured by Sonneborn Building Products or similar product by Master Builders.
- e) Concrete Qualifiers.
 - 1) Concrete mix shall be DOT Class E.
 - 2) Strength - 4,000 psi at twenty-eight (28) days with maximum water-cement ratio of 0.45.
 - 3) Air content - 6 percent.
 - 4) Slump limits - 3-4 inch.
- f) Reinforcing
 - 1) Bars - ASTM A615, Grade 40.
 - 2) Welded Wire Fabric - ASTM A185.
- g) Frame and Grating - (Reteculine)
 - 1) The frames, gratings, and appurtenances shall be fabricated from steel conforming to ASTM A36.
 - 2) All parts shall be galvanized according to the requirements of the NYSDOT 719-01 type 1.

- 3) Grating shall be provided with lock down bolt anchors.
- h) Waterstops
 - 1) Waterstops to be 6" PVC dumbbell style, made of virgin raw materials.
 - 2) Waterstops shall be #747 as manufactured by Greenstreak, #8046 as manufactured by Vulcan Metal Products, Inc., or equal.

2.2 **Precast Concrete Units**

- a) Precast concrete units shall be of sizes shown and built in accordance with ASTM standards C913-89. Units to be designated to withstand H-20 loading.
- b) Manhole cover and frame shall conform to NYSDOT Standard 715-05, Class No. 30. Units shall be supplied with lock down device.

3) ***Execution***

3.1 **Concrete Placement**

- a) General - Place concrete in compliance with the practices and recommendations of ACI-304, and herein specified.
- b) Deposit and consolidate concrete slabs in a continuous operation, within the limits of construction joints, until the placing of a panel or section is complete. In the event that the slab is placed in two sections, the sections shall have continuous waterstops.
- c) Consolidate concrete during placing operations using mechanical vibrating equipment, so that concrete is thoroughly worked around reinforcing and other embedded items and into corners.
- d) Bring slab surfaces to the correct level with a straight edge strike off. Use bull floats or darbies to smooth the surface, leaving it free of humps or hollows.

3.2 **Cold Weather Placing**

- a) Protect all concrete work from physical damage or reduced strength which could be caused by frost, freezing actions, or low temperatures.
- b) When air temperature has fallen to or is expected to fall below 40° F, uniformly heat all water and aggregate before mixing, to obtain a mixture temperature of not less than 50° F and not more than 80° F at point of placement.
- c) Do not use calcium chloride, salt, and other materials containing antifreeze agents or chemical accelerators.

3.3 **Monolithic Slab Finish**

- a) Begin float finishing when surface water has disappeared or when concrete has stiffened sufficiently to permit the operation of a power-driven float. Check surface plane to a tolerance not to exceed 1/4 inch in 10 feet, with uniform slopes to drains.
- b) Begin the final troweling when the surface produces a ringing sound as the trowel is moved over the surface.

3.4 **Concrete Curing and Protection**

- a) Protect freshly placed concrete from premature drying and excessive cold or hot temperatures.
- b) Weather permitting, keep placed concrete continuously moist for not less than 72 hours.

3.5 **Concrete Floor Sealer**

- a) Concrete slab shall be fully cured, cleaned, and etched.
- b) Apply sealer as recommended by manufacturer or as specified in the contract documents.

*** END OF SECTION ***

SECTION X - Standard Specifications

SPEC 00003

Minimum Requirements for Health and Safety

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MINIMUM REQUIREMENTS FOR HEALTH AND SAFETY

1. GENERAL

1.01 Description

- A.** The **CONTRACTOR** is solely responsible and liable for the health and safety of all on-site personnel and any off-site community potentially impacted by the remediation.
- B.** 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. The HASP will be reviewed by the **ENGINEER**. The **CONTRACTOR** will resubmit the HASP, addressing all review comments from the **ENGINEER**. The **CONTRACTOR** shall not initiate on-site work in contaminated areas until an acceptable HASP addressing all comments has been developed.
- C.** Consistent disregard for the provision of these health and safety specifications shall be deemed just and sufficient cause for immediate stoppage of work and/or termination of the Contract or any Subcontract without compromise or prejudice to the rights of the **DEPARTMENT** or the **ENGINEER**.
- D.** Any discrepancies between this HASP and the specifications (or OSHA requirements) shall be resolved in favor of the more stringent requirements as determined by the **ENGINEER**.

1.02 Basis

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

- B.** The safety and health of the public and project personnel and the protection of the environment will take precedence over cost and schedule considerations for all project work. Any additional costs will be considered only after the cause for suspension of operations is addressed and work is resumed. The **ENGINEER's** on-site representative and the **CONTRACTOR's** Superintendent will be kept apprised, by the Safety Officer, of conditions which may adversely affect the safety and health of project personnel and the community. The **ENGINEER** may stop work for health and safety reasons. If work is suspended for health and/or safety reasons, it shall not resume until approval is obtained from the **ENGINEER**. The cost of work stoppage due to health and safety is the responsibility of the **CONTRACTOR** under this Contract.

1.03 Health and Safety Definitions

- A.** The following definitions shall apply to the work of this Contract:

1. Project Personnel: Project personnel include the **ENGINEER**, the **ENGINEER's** On-site Representatives, **CONTRACTOR**, Subcontractors, and Federal and State Representatives, working or having official business at the Project Site.
2. 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 CFR 1910.120 to enter the contamination reduction zone and/or exclusion area.
3. Health and Safety Coordinator (HSC): The HSC shall be a Certified Industrial Hygienist (CIH) or Certified Safety Professional (CSP) retained by the **CONTRACTOR**. The HSC will be responsible for the development and implementation of the HASP.
4. 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.
5. 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.
6. 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.
7. Project Site: The area designated on the Site Sketch, which includes the Contractor Work Area.
8. Contractor Work Area: An area of the project site including the Support Zone, access road, staging area, and Exclusion Zone.

9. 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.
10. Staging Areas: Areas within the Exclusion Zone for the temporary staging of contaminated soil and debris.
11. 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.
12. 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.
13. **ENGINEER's** on-site representative: The **ENGINEER's** representative assigned responsibility and authority by the **ENGINEER** for day-to-day field surveillance duties.
14. 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 **ENGINEER**.
15. 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.

1.04 Responsibilities

A. The **ENGINEER** will be responsible for the following:

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

B. The **CONTRACTOR** will be responsible for the following:

C. 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.

D. The **CONTRACTOR** shall:

1. 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.
2. Ensure that all project personnel have obtained the required physical examination prior to and at the termination of work covered by the contract.
3. 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.
4. Be responsible for the implementation of this HASP, and the Emergency Contingency and Response Plan.
5. 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.
6. Alert appropriate emergency services before starting any hazardous work and provide a copy of the Emergency Contingency Plan to the respective emergency services.
7. Have sole and complete responsibility of safety conditions for the project, including safety of all persons (including employees).
8. 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.
9. Ensure all OSHA health and safety requirements are met.
10. 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.

1.05 Health and Safety Plan

- A.** The HASP is a deliverable product of this project. The **ENGINEER** 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):

1. Health and Safety Organization.
2. Site Description and Hazard Assessment.
3. Training.
4. Medical Surveillance.
5. Work Areas.
6. Standard Operating Safety Procedures and Engineering Controls.
7. Personal Protective Equipment (PPE).
8. Personnel Hygiene and Decontamination.
9. Equipment Decontamination.
10. Air Monitoring.
11. Emergency Equipment/First Aid Requirements.
12. Emergency Response and Contingency Plan.
13. Confined-Space Entry Procedures.
14. Spill Containment Plan.
15. Heat & Cold Stress.
16. Record Keeping.
17. Community Protection Plan.

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

1.06 Health and Safety Organization

- A.** 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.
- B.** Health and Safety Coordinator: The **CONTRACTOR** must retain the services of a Health and Safety Coordinator (HSC). The HSC must be an American Board of Industrial Hygiene (ABIH) Certified Industrial Hygienist (CIH) or a Certified Safety Professional (CSP). The HSC must have a minimum of two years experience in hazardous waste site remediations or related industries and have a working knowledge of federal and state occupational health and safety regulations. The HSC 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 HSC will have the following responsibilities:

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

C. Safety Officer: 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 SCBA and airline respirators.

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

1. Responsibility for the implementation, enforcement, and monitoring of the health and safety plan.
2. 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:
 - a. Potential hazards.
 - b. Personal hygiene principles.
 - c. PPE.
 - d. Respiratory protection equipment usage and fit testing.
 - e. Emergency procedures dealing with fire and medical situations.
 - f. Conduct daily update meetings in regard to health and safety.
3. Responsibility for alerting the **ENGINEER's** on-site representative prior to the **CONTRACTOR** starting any particular hazardous work.
4. Responsibility for informing project personnel of the New York State Labor Law Section 876 (Right-to-Know Law).

5. Responsibility for the maintenance of separation of Exclusion Zone (Dirty) from the Support Zone (Clean) areas as described hereafter.
- D.** 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.
- E.** Medical Consultant: 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.

1.07 Site Description and Hazard Assessment

- A.** 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.
1. Chemical Hazards: A qualitative evaluation of chemical hazards shall be based on the following:
 - Nature of potential contaminants;
 - Location of potential contaminants at the project site;
 - Potential for exposure during site activities; and
 - Effects of potential contaminants on human health.
 2. Biological Hazards: A qualitative evaluation of biological hazards consisting of the elements listed for chemical hazards.
 3. Physical Hazards: The **CONTRACTOR** shall assess the potential for physical hazards affecting personnel during the performance of on-site work.
- B.** The **CONTRACTOR** shall develop a hazard assessment for each site task and operation established in the HASP.

1.08 Training

A. OSHA Training

1. The **CONTRACTOR** is responsible to ensure that all project personnel have been trained in accordance with OSHA 1910.120 regulations.
2. 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.
3. 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.

B. Safety Meetings

1. The SO will conduct daily safety meetings for each working shift 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.
2. Additional safety meetings will be held on an as-required basis.

- C.** Should any unforeseen or site-specific 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.

1.09 Medical Surveillance

- A.** 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.

- B.** **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**.

- C.** Physical examinations are required for:

1. Any and all personnel entering hazardous or transition zones or performing work that required respiratory protection.
2. All **CONTRACTOR** personnel on site who are dedicated or may be used for emergency response purposes in the Exclusion Zone.

3. **CONTRACTOR** supervisors entering hazardous or transition zones, or on site for more than 16 hours during the length of the contract.
- D.** Physical examinations are not required for people making periodic deliveries provided they do not enter hazardous or transition zones.
 - E.** 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.
 - F.** 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.
 - G.** The physical examination shall also include but not be limited to the following minimum requirements:
 1. Complete blood profile;
 2. Blood chemistry to include: chloride, CO₂, potassium, sodium, BUN, glucose, globulin, total protein, albumin, calcium, cholesterol, alkaline phosphatase, triglycerides, uric acid, creatinine, total bilirubin, phosphorous, lactic dehydrogenase, SGPT, SGOT;
 3. Urine analysis;
 4. "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;
 5. Electrocardiogram;
 6. Chest X-ray (if recommended by examining physician in accordance with good medical practice);
 7. Pulmonary function;
 8. Audiometry - To be performed by a certified technician, audiologist, or physician. The range of 500 to 8,000 hertz should be assessed.
 9. 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.

10. Tetanus booster shot (if no inoculation has been received within the last five years); and
11. Complete medical history.

1.10 Site Control

A. Security

1. Security shall be provided and maintained by the **CONTRACTOR**.
2. The **CONTRACTOR** shall contact law enforcement officials, emergency medical care units, local fire departments and utility emergency teams to ascertain the type of response required in any emergency situation and to coordinate the responses of the various units. A standard operating procedure describing security force response to foreseeable contingencies shall be developed. The **CONTRACTOR** shall also prepare and update a list of emergency points of contact, telephone numbers, radio frequencies, and call signs to ensure dependable responses.
3. Security personnel shall record their presence while patrolling the site using a watchman's clock. The Tapes or punch cards shall be delivered to the **ENGINEER** once a week.
4. 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.
5. 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.
6. The **CONTRACTOR** shall be responsible for maintaining a log of security incidents and visitor access granted.
7. 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.
8. 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.
9. Site visitors shall not be permitted to enter the hazardous work zone unless approved by the **DEPARTMENT** with appropriate site access agreement.
10. 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.

B. Site Control

1. 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.

C. Work Areas

1. 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 (SOSP), Engineering Controls

A. General SOSP

1. The **CONTRACTOR** will ensure that all safety equipment and protective clothing is kept clean and well maintained.
2. 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.
3. All disposable or reusable gloves worn on the site will be approved by the SO.
4. During periods of prolonged respirator usage in contaminated areas, respirator filters will be changed upon breakthrough. Respirator filters will always be changed daily.
5. 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.
6. 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.
7. All respirators will be individually assigned and not interchanged between workers without cleaning and sanitizing.
8. **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.
9. The **CONTRACTOR** will ensure that all project personnel shall have vision or corrected vision to at least 20/40 in one eye.
10. On-site personnel found to be disregarding any provision of this plan will, at the request of the SO, be barred from the project.
11. 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**.
12. Protective coveralls that become torn or badly soiled will be replaced immediately.
13. Eating, drinking, chewing gum or tobacco, smoking, etc., will be prohibited in the hazardous work zones and neutral zones.
14. All personnel will thoroughly cleanse their hands, face, and forearms and other exposed areas prior to eating, smoking or drinking.
15. Workers who have worked in a hazardous work zone will shower at the completion of the work day.
16. All personnel will wash their hands, face, and forearms before using toilet facilities.

17. No alcohol, firearms or drugs (without prescriptions) will be allowed on site at any time.
18. 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.

B. Engineering Controls - Air Emissions

1. The **CONTRACTOR** shall provide all equipment and personnel necessary to monitor and control air emissions.

1.12 Personal Protective Equipment

A. General

1. 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 **ENGINEER's** on-site personnel (average two people for the project duration) with PPE as specified. The **ENGINEER** 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;
 - d. Chemical-resistant outer and inner gloves;
 - e. Rubber overshoes (to be washed daily);
 - f. Hard hat;
 - g. One full-face mask with appropriate canisters. The **ENGINEER** and the **DEPARTMENT** will supply their own full-face mask. The **CONTRACTOR** will supply the appropriate canisters to all on-site project personnel including the **ENGINEER** and the **DEPARTMENT**. The **CONTRACTOR** shall supply MSA canisters; and
 - h. For all project personnel involved with Level B protection, a positive-pressure SCBA or in-line air. A 5-minute escape bottle must be included with the in-line air apparatus.

B. Levels of Protection

1. It is planned that Levels C and D PPE will be required in this remediation. Although Levels A and B are not planned, site conditions may be encountered that

require their use. The following sections described the requirements of each level of protection.

a. Level A Protection

1. PPE:
 - a. Supplied-air respirator approved by the Mine Safety and Health Administration (MSHA) and NIOSH. Respirators may be:
 - Positive-pressure SCBA; 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.)
 - g. Hard hat (under suit).*
 - h. Disposal gloves and boot covers (worn over fully encapsulating suit).
 - i. Cooling unit.*
 - j. Two-way radio communications (inherently safe).*

* 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.
- b. Substances with a high degree of hazard to the skin are known or suspected to be present, and skin contact is possible.
- c. 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:

- 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 SCBA, 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.

- 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

1. PPE:
 - a.. Positive-pressure SCBA (MSHA/NIOSH approved); or
 - b. Positive-pressure air line respirator (with escape bottle for IDLH or potential for IDLH atmosphere) MSHA/NIOSH approved;
 - c. Chemical-resistant clothing (overalls and long-sleeved jacket; coveralls or hooded, one- or two-piece chemical-splash suit; disposable chemical-resistant, one-piece suits);
 - d. Cotton long underwear;*
 - e. Coveralls;
 - f. Gloves (outer), chemical-resistant;
 - g. Gloves (inner), chemical-resistant;
 - h. Boots (inner), leather work shoe with steel toe and shank;
 - I. Boots (outer), chemical-resistant, (disposable);
 - j. Hard hat (face shield*);
 - k. 2-way radio communication;* and
 - l. Taping between suit and gloves, and suit and boots.

*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 personal wearing Level B protection.
- d. 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.

3. 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 SCBA 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:

- a. Comparing the concentrations of known or identified substances in air with skin toxicity data;
- b. 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
- c. 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/NIOSH 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;
 - f. Gloves (inner), chemical-resistant;
 - g. Boots (inner), leather work shoes with steel toe and shank;
 - h. Boots (outer), chemical-resistant (disposable);*
 - i. Hard hat (face shield);*
 - j. Escape SCBA of at least 5-minute duration;
 - k. 2-way radio communications (inherently safe);* and
 - l. Taping between suit and boots, and suit and gloves.

* Optional

2. 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.
- b. 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 SCBA.
- 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.

3. Guidance on Selection Criteria

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/NIOSH 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;*
- d. 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
- i. Taping between suit and boots, and suit and gloves.

* Optional

2. Criteria for Selection:

- a. No atmospheric contaminant is present.
- b. Direct reading instruments do not indicate any readings above background.
- c. Job functions have been determined not to require respirator protection.

3. 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

- 1. It is anticipated that most of the work shall be performed in Level D. 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.

C. Safety Equipment Specifications

Note: Prior to purchasing any equipment or supplies required by this HASP, the **CONTRACTOR** shall notify the **ENGINEER** 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 **ENGINEER** and which differ from the minimum requirements shown below are provided at the end of this section.

D. Self-Contained Breathing Apparatus

1. The **CONTRACTOR** shall provide positive-pressure SCBA for possible upgrades in respiratory protection. The **CONTRACTOR** shall further supply all the SCBA for all field personnel for the duration of normal work activities. The units must be a MSHA/NIOSH-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 CFR 1910.13-4) and as recommended by the manufacturer.

E. Disposable Coveralls

1. 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 necessary decontamination has been completed to the satisfaction of the SO.

F. Hard Hat

1. 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 CFR 1910.135).

G. Face Shields

1. The **CONTRACTOR** shall provide and maintain one face shield per person on site. The face shields shall be of the full face type meeting OSHA Health and Safety Standards (29 CFR 1910.133) and shall have brackets for mounting on hard hats. Hard hats and face shields shall be from the same manufacturer to ensure proper fit and shall be manufactured/supplied by Bullard, Norton, or other appropriate manufacturers.

H. Work Clothing

1. 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 shower and change to street clothing prior to leaving the site. All contaminated work clothing shall be laundered on site with wash water drained to the decontamination water holding tank.

I. Escape-Type Respirator

1. The **CONTRACTOR** shall provide and maintain one self-contained breathing escape-type respirator per person working 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 provided if positive-pressure SCBA are not part of the ensemble worn by each person on site.

J. Full Face Organic Vapor Respirator

1. 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/NIOSH 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 CFR 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 CFR 1910.134).

K. Gloves (outer)

1. The **CONTRACTOR** shall supply a minimum of one pair 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.

L. Gloves (inner)

1. The **CONTRACTOR** shall supply Latex or equivalent surgical gloves to be worn inside the outer gloves.

M. Boots (inner)

1. 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 CFR 1910.136.

N. Boots (outer)

1. 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.

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	Type H	NA	NA
APR pesticide cartridges	MSA	GMP	NA	NA

1.13 Personnel Hygiene and Decontamination

A. On-Site Hygiene Facility

1. The **CONTRACTOR** shall provide a hygiene facility on site. The hygiene facility shall include the following:
 - Adequate lighting and heat;
 - Shower facilities for project personnel;
 - Laundry facilities for washing work clothes and towels;
 - 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.

a. Portable "Boot Wash" Decontamination Equipment

1. The **CONTRACTOR** shall provide a portable decontamination station, commonly referred to as a "Boot Wash" facility for each hazardous work zone requiring decontamination for project personnel. These facilities shall be constructed to contain spent wash water, contain a reservoir of clean wash water, a power supply to operate a pump for the wash water, a separate entrance and exit to the decontamination platform, with the equipment being mobile, allowing easy transport from one hazardous work zone to the next. All such wash water shall be disposed of at the dewatering facility. An appropriate detergent such as trisodium phosphate shall be used.

b. Personnel Decontamination

1. The **CONTRACTOR** shall provide full decontamination facilities at all hazardous zones. Decontamination facilities must be described in detail in the HASP.

c. Disposal of Spent Clothing and Material

1. Contaminated clothing, used respirator cartridges and other disposable items will be put into drums/containers for transport and proper disposal in accordance with TSCA and RCRA requirements.
2. Containers/55-gallon capacity drums shall conform to the requirements of 40 CFR Part 178 for Transportation of Hazardous Materials. The containers/drums containing excavated and other hazardous material shall be transported by the **CONTRACTOR** to the staging area.
3. The **CONTRACTOR** is responsible for the proper container packaging, labeling, transporting, and disposal.

1.14 Equipment Decontamination

A. General

1. All equipment and material used in this project shall be thoroughly washed down in accordance with established federal and state procedures before it is removed from the project. With the exception of the excavated materials, all other contaminated debris, clothing, etc. that cannot be decontaminated shall be disposed at the **CONTRACTOR's** expense by a method permitted by appropriate regulatory agencies. The cost for this element of work shall be incorporated in the lump sum bid for mobilization/demobilization the unit prices bid for disposal of decontamination liquids or as otherwise directed on this project. All vehicles and equipment used in the "Dirty Area" will be decontaminated to the satisfaction of the SO in the decontamination area on site prior to leaving the project. The **CONTRACTOR** will certify, in writing, that each piece of equipment has been decontaminated prior to removal from the site.

2. 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.
3. Personnel engaged in vehicle decontamination will wear protective clothing and equipment as determined in the HASP. 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 **ENGINEER**. At the completion of the project the **CONTRACTOR** shall completely decontaminate and clean the decontamination area.

B. Decontamination Station

1. The **CONTRACTOR** shall construct a decontamination station as described. 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.
2. 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 one soil sample at the area where the decontamination pad is to be built and one soil sample after the pad has been dismantled, as directed by the Engineer. The cost associated with the samples shall be included in the cost of providing health and safety at the site.
3. Shop drawings of the decontamination pad shall be submitted to the **ENGINEER** for approval.
4. The **CONTRACTOR** shall be responsible for the provision of an adequately equipped decontamination pad which shall meet the following requirements:
 - a. 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 a contaminated zone shall be decontaminated.
 - b. Perimeter to be curbed and provided with splash guards.
 - c. 40 mil impervious HDPE membrane is required to prevent seepage into the ground.
 - d. Sumps, pumping facilities, and temporary storage facilities to be adequate for anticipated use.
 - e. 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 1.0×10^{-7} cm/sec.
 - f. The decontamination pad is to be located at the exit of each contaminated zone such that previously non-contaminated areas are not contaminated during

remedial activities. This may require the construction and use of multiple decontamination pads.

- g. The **CONTRACTOR** shall place a minimum of six (6) inches of sand under the decontamination pad.
- h. There shall be side wall panels, six (6) feet high minimum on two sides to prevent over spray.

C. 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 their own expense.

1.15 Air Monitoring Program

A. General

1. 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.
2. The **CONTRACTOR** shall supply all personnel, equipment, facilities, and supplies to develop and implement the air monitoring program described in this section. Equipment shall include at a minimum real-time aerosol monitors, depending on work activities and environmental conditions.
3. The **CONTRACTOR's** AMP shall include both real-time and documentation air monitoring (personal and area sampling as needed). The purpose of real-time monitoring will be to determine if an upgrade (or downgrade) of PPE is required while performing on-site work and to implement engineering controls, protocols, or emergency procedures if **CONTRACTOR**-established action levels are encountered.
4. 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.
5. To protect the public in the neighboring residential neighborhood, the **CONTRACTOR** must include in the AMP provisions for suspending work and implementing engineering controls based upon detectable odors, as well as upon instrument monitoring results.
6. 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.

7. Air monitoring (both real time and documentation monitoring) shall be conducted by a minimum of one dedicated person with communication to the foreman whenever intrusive activities (such as excavation, tank removal, and soil treatment) are performed in an exclusion zone. After completion of intrusive activities involving contaminated materials and removal of the exclusion zone, air monitoring may be discontinued.
8. 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 **ENGINEER's** on-site representative.

B. Action Levels

1. VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions, particularly if wind direction changes. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

a. If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

b. If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

c. If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

d. All 15-minute readings must be recorded and be available for State (DEPARTMENT and New York State Department of Health (NYSDOH)) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

2. Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance

of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

a. If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m³) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m³ above the upwind level and provided that no visible dust is migrating from the work area.

b. If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m³ above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m³ of the upwind level and in preventing visible dust migration.

c. All readings must be recorded and be available for State (DEPARTMENT and NYSDOH) and County Health personnel to review.

C. Real-Time Monitoring

1. The **CONTRACTOR** shall submit a written copy of the real time air monitoring results for each Workday, by 10:00 a.m. the following Workday, which shall include an appropriately scaled map of the Work area depicting sample locations, wind direction and other pertinent meteorological data: date; time; analytical results; applicable standards and engineering controls implemented (if necessary).
2. Real-time monitoring shall be conducted using the following equipment:
3. 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.
4. Particulate monitoring must be performed using real-time particulate monitors (MiniRam Model MIEPDM-3, or equal) and shall monitor particulate matter in the range of 0-10 microns diameter (PM₁₀) with the following minimum performance standards:

Object to be measured: Dust, Mists, Aerosols

Measurement Ranges: 0.001 to 400 mg/m³ (1 to 400,000 µg/m³)

Precision (2-sigma) at constant temperature:

+/- 10 µg/m³ for one second averaging; +/- 1.5 µg/m³ for sixty second averaging

Accuracy:

+/- 5% of reading +/- precision (Referred to gravimetric calibration with SAE fine test dust (mmd= 2 to 3 µm, g= 2.5, as aerosolized)

Resolution: 0.1% of reading or 1 µg/m³, whichever is larger

Particle Size Range of Maximum Response: 0.1-10 µ

Total Number of Data Points in Memory: 10,000

Logged Data:

Each Data Point: average concentration, time/date, and data point number

Run Summary:

overall average, maximum concentrations, time/date of maximum, total number of logged points, start time/date, total elapsed time (run duration), STEL concentration and time/date occurrence, averaging (logging) period, calibration factor, and tag number.

Alarm Averaging Time (user selectable):

real-time (1-60 seconds) or STEL (15 minutes)

Operating Time: 48 hours (fully charged NiMH battery); continuously with charger

Operating Temperature: -10 to 50°C (14 to 122°F)

Automatic alarms are suggested.

5. Particulate levels will be monitored and integrated over a period not to exceed 15 minutes. Consequently, instrumentation shall require necessary averaging hardware to accomplish this task. A monitor such as the personal DataRAM, manufactured by Monitoring Instruments for the Environment, Inc., or equivalent, can be used as a real time particulate screening tool. Although the instrument's design does not allow it to make a sharp differentiation of particulates at the PM₁₀ standard, the instrument could be used in the passive mode without a pump to provide readings in the 0.1 to 10µ range in the immediate vicinity of construction activities.
6. Monitor the air, using the same equipment, for 10-15 minutes upwind of the work site to establish background level. The background level shall be established before the start of each shift every day. In the event that downwind particulates are detected at levels in excess of 150 ug/m³ or 2.5 times the established background level at the work site, re-measure the background concentrations upwind of the work zone using the same equipment. If the measured particulate level at the work zone is 100 ug/m³ above background, monitor the downwind site perimeter and implement additional dust controls in the work zone. Continue to take hourly measurements of the upwind background concentrations and compare such concentrations with the particulate level at the work zone, until the downwind level at the work zone is less than 100 ug/m³ above the upwind level. If at any time the measured particulate level at the work zone is more than 150 ug/m³ over background concentration, the CONTRACTOR shall immediately suspend work at the site, promptly notify the Safety Officer, and implement suitable corrective action or engineering controls before work resumes.
7. Real-time monitoring will be conducted at any excavation of contaminated soil or sediments. Real-time monitoring will also be conducted at perimeter locations including an upwind (background) and three downwind locations. A background reading will be established daily at the beginning of the work shift. If the wind direction changes during the course of the day, a new background reading will be made. Downwind readings at the perimeter will be made when **CONTRACTOR** action levels have been exceeded at the excavation face or at a minimum of twice a day.
8. If action levels are exceeded at the perimeter location for fugitive dust, work must be suspended and engineering controls must be implemented to bring concentrations back down to acceptable levels.
9. Construction activities generate dust which could potentially transport contaminants off site. There may be situations when visible dust is being generated and leaving the site and the monitoring equipment does not measure PM₁₀ at or above the action level. Therefore, if dust is observed leaving the working site, additional dust suppression techniques must be employed by the **CONTRACTOR**.

D. Documentation Monitoring

1. Documentation monitoring will be conducted at the perimeter at a minimum of four locations (one upwind and three downwind) for total dust. Documentation monitoring will be conducted only during excavation, consolidation, staging, removal, or decontamination activities (i.e., intrusive activities).
 - a. Collect total nuisance dust using PVC collection filter and personnel sampling pump and analyze gravimetrically according to NIOSH 89-127 Method 0500.
 - b. Documentation samples will be collected at established perimeter locations. The four locations will be chosen according to site activities and expected wind direction.
 - 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 continuously, during the normal work hours when activities are occurring on site. At the end of the week, one days worth of sampling (i.e. three downwind locations and one upwind location) will be selected by the Engineer for analysis by the Contractor.
 - e. The documentation samples will be collected over an eight (8) hour work period.
 - f. In addition to perimeter monitoring, personnel documentation samples will be collected on site once a week. On-site samples will be collected by choosing “high risk” workers to wear appropriate collection media for pesticides, metals, and particulate. “High risk” workers are those who are most likely to encounter contamination on a particular task. At a minimum, two high risk workers will be chosen to wear collection media for a particular day each week and the media will be analyzed with the documentation air monitoring samples.
 - g. The **CONTRACTOR** shall submit a written copy of the documentation air monitoring results within 7 days of sampling, which shall include an appropriately scaled map of the Work area depicting sample locations, wind direction and other pertinent meteorological data: date; time; analytical results; applicable standards and engineering controls implemented (if necessary).
 - h. The documentation sampling submitted shall also identify the “high risk” workers chosen to wear appropriate collection media for contaminants; date media was worn; task involved; analytical results and applicable standards.
 - i. Payment for air monitoring will not be approved until the above submittals have been received and approved by the **ENGINEER**.

E. Community Air Monitoring

1. Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for VOCs and/or particulate levels at the perimeter of the exclusion

zone or work area will be necessary. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring. If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate DEPARTMENT/NYSDOH staff.

- a. **Continuous monitoring** will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.
- b. **Periodic monitoring** for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. "Periodic" monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or Final DER-10 Page 205 of 226 Technical Guidance for Site Investigation and Remediation May 2010 overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

1.16 Emergency Equipment and First Aid Requirements

A. Communications

1. The **CONTRACTOR** shall provide telephone communication at the site field office. Emergency numbers, such as police, sheriff, fire, ambulance, hospital, poison control, DEPARTMENT, EPA, NYSDOH, and utilities, applicable to this site shall be prominently posted near the telephone.
2. The **CONTRACTOR** shall establish a signaling system for emergency purposes.

B. Emergency Shower and Emergency Eye Wash

1. The **CONTRACTOR** shall supply and maintain one portable eyewash/body wash facility per active hazardous work zone. The facility shall have a minimum water capacity of 10 gallons and shall conform to OSHA regulations 29 CFR 1910.151. The portable eyewash/body wash facility shall be manufactured/ supplied by Direct Safety Company, Lab Safety Supply Company, or other appropriate suppliers.

C. Fire Extinguishers

1. 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 CFR 1910.157. The fire extinguisher shall be manufactured/supplied by Direct Safety Company, Lab Safety Supply Company, or other appropriate suppliers.

D. First Aid Kit

1. 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 CFR 1910.151. The first aid kit shall be manufactured/supplied by Norton, Scott, or other appropriate suppliers.

E. Emergency Inventory

1. 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. SCBA;
 - e. Escape SCBA (authorized visitor use);
 - f. Face shields;
 - g. Safety glasses;
 - h. Respirators and appropriate cartridges;
 - i. Disposable coveralls;
 - j. Chemical-resistant boots and latex boot covers;
 - k. Hard hats;
 - l. Bottled breathing air; and
 - m. Rain suits.

1.17 Emergency Responses/contingency Plan and Procedures

A. Daily Work

1. 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.

B. Emergency Vehicle Access

1. 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.

2. 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.

C. Personal Injury Response Plan

1. 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.
2. If soiled clothing cannot be removed, the injured person will be wrapped in blankets for transportation to the hospital.
3. 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.
4. 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.

D. Route to the Hospital

1. 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.

E. Fire Service

1. 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.
2. 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.

F. Master Telephone List

1. 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.

<u>Emergency Service</u>		<u>Telephone Number</u>
Fire Department		911
Police Department		911
Ambulance		911
Hospital/Emergency Care Facility		To be determined
Poison Control Center		(800) 336-6997
Chemical Emergency Advice (CHEMTREC)		(800) 424-9300
NYSDEC Albany Office	Work Hours	To be determined
	After Hours	To be determined
NYSDEC Regional Office	Work Hours	To be determined
County Dept. of Health		To be determined
New York State Dept. of Health - Albany		To be determined
New York State Dept. of Health - Regional		To be determined

1.18 Heat Stress Monitoring

- A. 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 Standard First Aid 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.
- B. When protective clothing is worn, especially Levels A and B, the suggested guidelines for ambient temperature and maximum wearing time per excursion are:

Ambient Temperature (°F)	Maximum Wearing Time Per Excursion (Minutes)
Above 90	15
85 to 90	30
80 to 85	60
70 to 80	90
60 to 70	120
50 to 60	180

- C. 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.
- D. 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.
- E. 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.
- F. 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:

1. Personnel shall wash and rinse their outer gloves and remove them.
2. Personnel shall remove their hard hats and respirators and place on table.
3. Personnel shall remove their inner gloves and place them on table.
4. Personnel shall wash and rinse their face and hands.
5. 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.
6. 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.
7. Personnel shall replace their respirators, hard hats, gloves and tape gloves prior to re-entering the hazardous zone.

G. 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).

1.19 Cold Stress

A. 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.

B. 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.

- C. 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.

1.20 Logs, Reports and Record Keeping

A. Security Log

1. 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.
2. 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.
3. Project site shall be posted, "Warning: Hazardous Work Area, Do Not Enter Unless Authorized," and access restricted by the use of a snow fence.

B. Safety Log

1. 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.

C. Emergency Or Accident Report

1. Any emergency or accident will be reported immediately to the SO. The **ENGINEER** 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.

D. Daily Work Report

1. The **CONTRACTOR** shall maintain a daily work report that summarizes the following:

- Work performed,
- Level of protection,
- Air monitoring results,
- Safety-related problems, and
- Corrective actions implemented.

1.21 Posting Regulations

- A.** 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.
- B.** 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, drinking and smoking 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 showering before going home.

Recommendations

- A. Do not smoke on site 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.

- C. 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)

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.

1.22 Community Protection Plan

A. General

1. Develop, as part of this HASP, a Community Protection Plan (CPP). The CPP shall outline those steps to be implemented to protect the health and safety of surrounding human population and the environment.

B. Air Monitoring

1. As part of the Air Monitoring Program, use real-time monitoring and documentation sampling as described in the Subpart "Air Monitoring Program" of this section to determine if off-site emission, as a result of site work, poses a threat to the surrounding community.
2. Provide real-time air monitoring for volatile compounds and particulate levels as the perimeter of the work area as necessary. Include the following:
 - a. Volatile organic compounds must be monitored at the downwind perimeter of the work area on a continuous basis. If total organic vapor levels exceed 5 ppm above background, work activities shall be halted and monitoring continued under the provisions of a Vapor Emission Response Plan. All readings shall be recorded and be available for State (DEC & DOH) personnel to review.
 - b. Particulates shall be continuously monitored at the 4 documentation sampling stations for a total of 4 dust monitors. If the downwind particulate level is 150 ug/m³ greater than the upwind particulate level, dust suppression techniques shall be employed. All readings shall be recorded and be available for State (DEC & DOH) personnel to review.

C. Vapor Emission Response Plan

1. If the ambient air concentration of organic vapors exceed 5 ppm above background at the perimeter of the work area, activities shall be halted and monitoring continued. If the organic vapor level decreases below 5 ppm above background, work activities may resume. If the organic vapor levels are greater than 5 ppm over background but less than 225 ppm over background at the perimeter of the work area, activities may resume provided the organic vapor level 200 feet downwind of the work area or half the distance to the nearest residential or commercial structure, whichever is less, is below 5 ppm over background.
2. If the organic vapor level is above 25 ppm at the perimeter of the work area, activities shall be shutdown. When work shutdown occurs, downwind air monitoring as directed by the SO shall be implemented to ensure that vapor emission does not impact the nearest residential or commercial structure at levels exceeding those specified in the Major Vapor Emission section.

D. Major Vapor Emission

1. If any organic levels greater than 5 ppm over background are identified 200 feet downwind from the work area or half the distance to the nearest residential or commercial property, whichever is less, all work activities shall be halted.

2. If, following the cessation of the work activities, or as the result of an emergency, organic levels persist above 5 ppm above background 200 feet downwind or half the distance to the nearest residential or commercial property from the work area, the air quality shall be monitored within 20 feet of the perimeter of the nearest residential or commercial structure (20 Foot Zone).
3. If efforts to abate the emission source are unsuccessful and if organic vapor levels are approaching 5 ppm above background and persist for more than 30 minutes in the 20 Foot Zone, the Major Vapor Emission Response Plan shall automatically be placed into effect.
4. However, the Major Vapor Emission Response Plan shall be immediately placed into effect if organic vapor levels are greater than 10 ppm above background levels.

E. Major Vapor Emission Response Plan

1. Upon activation, the following shall be undertaken:
 - a. All Emergency Response Contracts as listed in the Subpart titled "Emergency Response and Contingency Plan" paragraph titled "Telephone List."
 - b. The local police authorities shall immediately be contacted by the SO and advised of the situation. Coordinate with local officials to arrange for notification and evacuation of the surrounding community.
 - c. Frequent air monitoring shall be conducted at 30 minutes intervals within the 20 Foot Zone. If two successive readings below action levels are measured, air monitoring say be halted or modified by the SO.
2. The Air Monitoring Program shall include real-time air monitoring and shall be conducted at the perimeter of the site. Particulates should be continuously monitored upwind, downwind and within the Exclusion Zone at temporary particulate monitoring stations. If the downwind particulate level is more than 2.5 times greater than the upwind particulate level and greater than 150 ug/m³, then dust suppression techniques shall be employed. This is a general action level. A site-specific action level shall be developed based on available analytical data. All readings shall be recorded and be available for ENGINEER, DEPARTMENT, and NYSDOH personnel to review.
3. Coordinate with local officials to arrange for notification and evacuation of the surrounding community in the event that off-site emissions pose a threat.

F. Odor

1. Foam active work areas to reduce odors if odor complaints are received from nearby residences during site activities. Odor masking agents or other odor control methods may be used subject to **ENGINEER's** review. Continue odor suppression during each day that odor complaints are received.

G. Off-Site Spill Response

1. Produce as part of the HASP a Spill Response Plan, also coordinated with local officials, in case of an off-site spill of either liquid or solid wastes. The plan shall include transportation routes and times, as well as the minimum requirements set forth in the Subpart titled "On-Site Spill Containment Plan." The driver shall be supplied with Material Safety Data Sheets (MSDSs), a 24-hour emergency phone number, and instructions for reporting emergencies to local agencies and the project site.

1.23 Confined Space Work

- A. Evaluate the work areas and determine if there are any permit-required confined spaces. If the **CONTRACTOR** determines that personnel will not need to enter a permit-required confined space, appropriate measures to prevent personnel from entering such shall be taken. If the **CONTRACTOR** determines that personnel will need to enter a permit-required confined space, develop and implement a written permit-required confined space program.
- B. The written program shall comply with 29 CFR 1910.146 and shall include the following:
 1. Implement methods to prevent unauthorized entry;
 2. Identify and evaluate the hazards of permit-required confined spaces before personnel entry;
 3. Develop and implement procedures for safe permit-required confined space entry;
 4. Provide the appropriate equipment to evaluate permit-required confined spaces;
 5. Evaluate permit-required confined spaces when entry operations are conducted;
 6. Provide at least one attendant outside the permit-required confined space which will be entered;
 7. Designate the personnel who will have active roles in entry operations;
 8. Develop and implement procedures for obtaining rescue and emergency services;
 9. Develop and implement a system for the preparation, issuance, use, and collection of entry permits;
 10. Develop and implement procedures to coordinate entry operations when personnel from more than one employer are working;
 11. Develop and implement procedures for concluding the entry;
 12. Review and revise entry operations if measures may not protect personnel; and
 13. Review the permit-required confined space program to ensure personnel are protected from the hazards present.
- C. Copies of the permit-required confined space program and employee training certificates shall be included with the HASP.

2. PRODUCTS

Not Used.

3. EXECUTION

Not Used.

*** END OF SECTION ***

SECTION XI

Supplementary Specifications

SECTION XI SUPPLEMENTARY SPECIFICATIONS
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SECTION 01110

SUMMARY OF WORK

PART 1 - GENERAL

1.01 LOCATION OF WORK

- A. The Altech Specialty Steel Site OU-2A, Willowbrook Pond Closure IRM (Site) is located within the City of Dunkirk at the northeast corner intersection of Willowbrook Ave and Brigham Road (County Road 98B). The Site is comprised of approximately 3.5 acre industrial facility and is bordered on the east by the Special Metals Corporation, on the south by Willowbrook Ave., and on the west and north by Dunkirk Specialty Steel. Within the Site is the Recycle Water Pond (Willowbrook Pond), a 1.89 acre surface water impoundment with an approximate capacity of 5.4 million gallons of water. The Recycle Water Pond is an earthen structure approximately 225 feet by 320 feet by 10.5 feet deep. The ground surface at the site is gently sloping from the northeast to the southwest. A small creek is located immediately southwest of the Site on the Dunkirk Specialty Steel property. Residential housing is located on the south side of Willowbrook Ave. The area is serviced by public water and sanitary sewer supplied by the City of Dunkirk.
- B. The Altech Specialty Steel Site OU-2A, Willowbrook Pond Closure Intermediate Remedial Measure (IRM) activities will be performed by the New York State Department of Environmental Conservation (Department) under the State Superfund Program. The IRM Design has been prepared for the Department by Shaw Environmental and Infrastructure Group, Shaw Environmental, Inc. (Engineer). A summary of the project work and overall Contractor's responsibilities is provided herein. Reference to other components of the IRM design and associated Contract Documents is provided, as well as certain implementation details.

1.02 SCOPE OF WORK

- A. The Contractor shall furnish all labor, materials, equipment, subcontractor services, and incidentals related to the implementation of the IRM at the Site. The work includes, but is not limited to the installation of erosion and sediment controls, excavation and handling/off-site disposal of impacted materials, excavation/grading of site materials, installation and use of a groundwater dewatering and treatment system, dewatering the recycle water pond, excavation of pond sediment, excavation of soil, removing/abating certain structures/building (containing asbestos in the roofing tar of shingles) associated with the recycle water pond, backfilling, construction of a final surface soil cover system, grading and drainage, and other appurtenances in their entirety as shown on the Contract Drawings and as specified herein.
- B. The work shall also include all activities required of the Contractor to plan, organize, monitor, and coordinate the logical and timely sequence of site activities, in accordance with all applicable regulatory requirements. This includes activities such as preparation of submittals, permits, attendance at project meetings, incidental expenses, administrative activities, etc.
- C. The IRM implementation work includes, but is not limited to, the following:
 - 1. General: General activities include setting up Engineer/Department and Contractor's field offices, staff, and construction facilities; mobilizing and demobilizing all equipment, materials, and labor; performing site monitoring and protection; mobilizing and implementing health and safety equipment and practices; setting up and performing site security during the project construction period; and performing a perimeter air monitoring program; and complying with all requirements specified within these

Contract Documents.

2. In addition, general activities include ancillary support services and activities throughout the performance of site activities, as well as post-construction activities (e.g., as-built documentation).
3. Demolition of Existing Structures: As required by the IRM this item includes the demolition and removal of onsite structures that are deemed to interfere with proposed construction activities. A small structure located at the southwest corner of the pond is known to contain mastic ACM in the shingle roof tar and these items shall be abated in accordance with Code Rule 56, as described in Section 02080 Asbestos Removal, as shown on the Contract Drawings and as directed by the Engineer. The remaining structure shall be demolished in accordance with specification Section 02220 Demolition of Structures.
4. Site Preparation: Site preparation includes all activities involving preparation of the Site for the specified work. Work includes: obtaining necessary permits; performing water management; providing erosion and environmental controls; clearing and grubbing; removing existing fences (as necessary), installing temporary construction fencing, access roadways, and removing and plugging abandoned utilities (as encountered during material excavation).
5. Material Excavation: As required by the IRM design, impacted sediments and soils will be excavated to the horizontal limits and depths shown on the Contract Drawings. Materials generated during the excavation efforts will be transported to a designated soil stockpile area within the Site for dewatering/amendment activities (as necessary) to facilitate the material suitable for off-site disposal unless an alternative method is approved of by the Engineer. This material will be disposed of as specified and outlined within the Contract Drawings and as specified herein. Suitable shallow, dry soil may be stockpiled for use as backfill if deemed suitable for re-use by approved sampling methods. The excavation activities will require dewatering and have the potential to generate water contributed to surface runoff, groundwater seepage/excavation dewatering, and stockpiled material drainage. Water generated as a result of these activities will require collection, treatment, and proper disposal.
6. Temporary Water Treatment System: A water treatment system will be installed to treat water generated as a result of dewatering activities during construction and to control groundwater within the Site. Specifically, the water treatment system will be designed to treat pond water and water generated during construction efforts as well as groundwater recovered from groundwater collection system at a rate to prevent water infiltration into excavation boundaries. The water treatment system will be designed to treat 500 gallons per minute with treated water being discharged under permit to the City of Dunkirk Water Pollution Facility. The pond and water treatment system will be operated during the performance of the IRM remedial construction activities. Upon completion of construction activities the system shall be removed from service and the area shall be restored to its original condition or as directed by the Engineer.
7. Backfilling: Backfilling construction includes the placement and compaction of clean imported backfill material in all excavation areas or in areas required as shown on the Contract Drawings or as directed by the Engineer.
8. Final Surface Cover: Final surface cover system construction includes re-grading of the subgrade, installation of a final soil surface cover system, topsoil and seeding, and

associated testing specified herein and as shown on the Contract Drawings.

9. Site Restoration: Site restoration includes installing and repairing fences and gates, installing permanent erosion control measures, repairing and replacing any damaged or temporarily relocated site features, seeding and mulching disturbed areas, upland vegetation establishment, and removing temporary construction and erosion and sediment control practices (e.g., decontamination pads, material staging areas, site trailers, silt fencing, and hay bales, etc.) as specified herein and as shown on the Contract Drawings.
- D. The detailed scope of work and Contractor requirements are described in several components that collectively represent the IRM design. These components include the following:
1. Contract Drawings
 2. Technical Specifications
 3. Construction Quality Assurance Project Plan
 4. Ancillary documents including the Storm Water Pollution Prevention Plan, Health and Safety Plan, Community Air Monitoring Plan, and Waste Handling and Disposal Plan, Operations Plan, Work Plan and Contingency Plan.
- E. The above components address various elements of the IRM Design and should be thoroughly reviewed by the Contractor. In addition, in the event that there are discrepancies in the information contained in the above-listed documents, the Contractor shall identify such discrepancies for the Department and Engineer's review in accordance with the General Conditions of the Contract Documents.

1.03 WORK SEQUENCE/WORK HOURS

- A. Perform Work to ensure completion of the Work in the Contract time. Completion dates of the various stages shall be in accordance with the approved construction schedule submitted by the Contractor. An updated project schedule shall be provided in accordance with the General Conditions of the Contract Documents.
- B. The Contractor must submit a proposed Progress Schedule for review and approval. The Progress Schedule shall be in accordance with Section X – Standard Specifications Spec. 0001 Progress Schedule of the Contract Documents and should include all elements of the remedial actions and be based on the Critical Path Method (CPM).
- C. It is anticipated that work activities can be conducted between the hours of 7:00 a.m. and 6:00 p.m. (or as otherwise restricted by any local ordinances), 5 days per week (Monday through Friday), except in cases of emergency or unless prior approval has been obtained from the NYS Department of Labor and Engineer. Special requests by property owners should be considered as allowable.

1.04 CONTRACTOR'S USE OF PREMISES

- A. Coordinate use of premises with the Property Owner and the Property Owner's Representative within the project limits shown on the Contract Drawings. All conflicts over use of the premises shall be resolved without additional cost to the Department. Costs related to property use (e.g., telephone, electric, etc.) shall be borne by the Contractor.

- B. Contractor shall assume full responsibility for security of all of its and its subcontractors' materials and equipment stored onsite.
- C. If directed by the Department or Engineer, move any stored items that interfere with operations of Property Owner or other Contractors.

1.05 CARE AND PROTECTION OF WORK

- A. From the commencement until the acceptance of the Work, the Contractor shall be solely responsible for the care of the Work covered by the Contract Documents and for the materials, supplies and equipment delivered at the Site intended to be used in the Work; and all injury or damage to the same from whatever cause, shall be the responsibility of the Contractor. The Contractor shall provide suitable means of protection for and shall protect all materials intended to be used in the Work, all Work in progress, and all completed Work. The Contractor shall take all necessary precautions to prevent injury or damage to the Work by flood, fire, freezing, or from other inclemencies of the weather.

1.06 MATERIALS AND EQUIPMENT

- A. Quality and Workmanship:
 - 1. All items of equipment and materials of like type furnished shall be the product of one manufacturer, unless otherwise specified or approved by the Engineer.
 - 2. All materials furnished or incorporated in the Work shall be new, unused, of the best quality, and especially adapted for the service required; whenever the characteristics of any material are not particularly specified, such material shall be utilized as is customary in first class work of a nature for which the material is employed.
 - 3. All materials and workmanship shall be subject to inspection, examination, and tests by the Engineer at any and all times during manufacture or construction and at any and all places where such manufacture or construction are carried on.
 - 4. The Contractor's selection and use of organizations for the inspection and tests of supplies, materials, and equipment shall be subject to the approval of the Engineer. Satisfactory documentary evidence that the material has passed the required inspection and tests shall be furnished by the Contractor prior to the incorporation of the material in the Work.
 - 5. All laboratory and field testing shall be at the sole cost and expense of the Contractor unless specifically stated otherwise in the Contract Documents.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 OPERATIONS PLAN

- A. To gauge that the Contractor understands the Requirements of the Contract Documents and construction, and to demonstrate compliance with several elements of the Contract Documents, the Contractor shall prepare and submit an Operations Plan that shall be included with submittal of a Work Plan. The plan shall be submitted to the Department within 5 days of notification of apparent low bidder in Accordance with Section III, Article 5.b of the Contract Documents.
 - 1. The plan shall address, but not be limited to, the following items:

- a. List/schedule of equipment to be used onsite;
- b. Site security/property protection procedures;
- c. Progress schedule (Work schedule);
- d. The Contractor's proposed plan for controlling vehicular and pedestrian traffic and identification of transportation routes;
- e. Storm water (including run-on and run-off), erosion, noise, odor, and dust control measures;
- f. Water treatment approach;
- g. Material excavation approach (Willowbrook Pond sediments and bank soils and misc. upland soils);
- h. Surface cover system construction approach;
- i. Materials handling and staging approach;
- j. Equipment cleaning procedures.

3.02 HEALTH AND SAFETY PLAN

- 1. Refer to Section 00003 – Health and Safety

3.03 CONTINGENCY PLAN

- 1. Refer to Section 00003 – Health and Safety

3.04 STORMWATER POLLUTION PREVENTION PLAN

- A. The Contractor shall prepare and submit a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP shall be maintained onsite during all phases of the work. The SWPPP shall be submitted to the Department within 5 days of notification of the apparent low bidder.
 - 1. The plan shall address, but not be limited to, the following items:
 - a. Site assessment;
 - b. Description of Erosion and Sediment Control Best Management Practices;
 - c. Description of Housekeeping Best Management Practices;
 - d. Description of Inspection, Maintenance, and Recordkeeping Procedures;
 - e. Certification, Notification, and Permitting;
 - f. SWPPP Implementation;
 - e. Final Surface Stabilization and Permit Termination;

3.05 AIR MONITORING PLAN

1. Refer to Section 00003 – Health and Safety

3.06 WASTE HANDLING DISPOSAL PLAN

A. The Contractor shall prepare and submit a Waste Handling Disposal Plan. The Waste Handling Disposal Plan shall be maintained onsite during all phases of the work. The Waste Handling Disposal Plan shall be submitted to the Department within 5 days of notification of the apparent low bidder.

1. The plan shall address, but not be limited to, the following items:
 - a. Analysis of Project Waste;
 - b. Recyclable/Reusable Materials;
 - c. Cost Analysis of Recycle/Reuse vs. Disposal;
 - d. Implementation;

END OF SECTION

SECTION 01120

PROJECT IDENTIFICATION AND SIGNS

1. GENERAL

The sign shall be 4' high by 8' wide, and constructed of 3/4- to 1-inch medium density overlay plywood, with a resin coating on both sides. The edges shall be framed with a snap trim edge cap consisting of an aluminum channel with a polyvinyl coating. An aluminum sign of equal size may also be used. The sign's background will be painted with white exterior oil base sign enamel. The fourth line will have green letters. The first, second and third lines will have blue letters. The NYSDEC logo will be painted as noted. All adhesives are solvent resistant.

1.1 References

Lumber Standard: American Softwood Lumber Standard; U.S. Department of Commerce Product Standard PS20.

Softwood Plywood Standard: Construction and Industrial; U.S. Department of Commercial Product Standard PS1.

1.2 Quality Assurance

Painter's Qualifications: All paint shall be applied by a professional sign painter.

2. PRODUCTS

2.1 Materials

Posts: Standard Grade Douglas Fir, White Pine or Southern Pine; \$\$\$; preservative treated; 4 inch x 4 inch x 12 feet long.

Plywood: Overlaid Plywood; MDO B-B EXT-APA; 3/4 to 1 inch.

Framing: Snap trim edge of polyvinyl coated aluminum channel.

Paint:

Background Enamel: Exterior, alkyd, glass enamel with primer as recommended by finish coat manufacturer.

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Lettering and Striping Enamel: Exterior, long oil, alkyd; high gloss enamel manufactured for lettering signs.

Colors: As per attached illustration.

2.2 Fabrication

Painting:

Paint both sides and all edges of signs with two coats of primer and one coat of background enamel.

Paint lettering and striping with two coats of lettering enamel.

Do not apply succeeding coat until previous coat has completely dried.

Apply even coats of uniform thickness without brush marks, runs or lap marks.

Lettering and striping shall be uniform with sharp, neat profiles.

3. EXECUTION

3.1 Installation

Install signs within two weeks of Notice to Proceed.

Install signs where directed by Engineer.

Set posts plumb, 4 feet into the ground. Compact backfill around posts.

Fasten sign, in a level position, securely to posts. The center of the sign should be located approximately 6 to 7 feet from ground level.

3.2 Maintenance and Removal

Maintain the signs plumb and level for the duration of the work.

When directed, at the completion of the project, remove the signs.

*** END OF SECTION ***

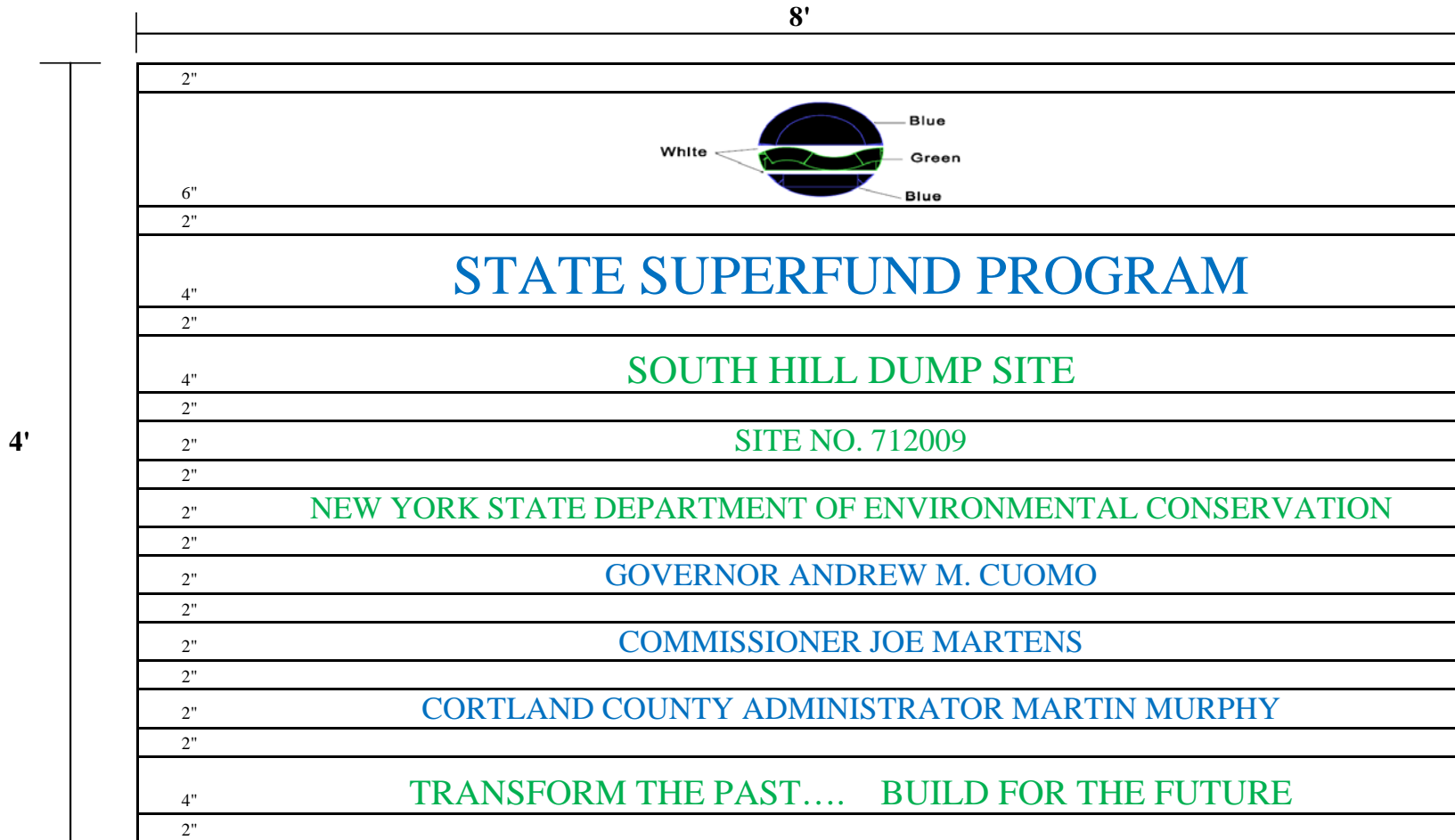


FIGURE 01045-1

PROJECT SIGN

SECTION 01300

SUBMITTALS

PART 1 - GENERAL

1.01 RELATED SECTIONS

- A. Other requirements pertaining to submittals are included in the General Conditions and in the various sections of the Specifications.
- B. Section 01400: Quality Control
- C. Section 01700: Closeout Procedures.

1.02 DEFINITIONS

- A. Deviation: Changes in products, materials, equipment and methods of construction from those required by the Contract Documents and proposed by the Contractor.

1.03 DEVIATIONS FROM REQUIREMENTS OF THE CONTRACT DOCUMENTS

- A. Deviations from the requirements of the Contract Documents will not be allowed unless a request for deviation is made in writing prior to or at the time of submission and the specific deviation is approved by the Engineer.
 - 1. The submission of a deviation shall be done in a timely manner according to the schedule of submittals to allow the Engineer sufficient time for review.

1.04 “OR EQUAL” TO BRAND NAME PRODUCTS

- A. Whenever a product is specified by brand name, a comparable brand, equal to that named, may be submitted by Contractor for approval by the Engineer in accordance with Section VIII General Conditions, Article 5 of the Contract Documents.
 - 1. The contractor shall bear the burden of proving that the proposed product is equal to the specified product. The submission of an “or equal” shall be done in accordance with the General Conditions of the Contract Documents.
 - 2. Whenever a color or pattern is indicated by a specific manufacturer’s name or number, the intent is to communicate the required color or pattern of the material. Other manufacturers’ comparable colors or patterns may be submitted for approval as equal.

1.05 WAIVER OF CERTAIN SUBMITTAL REQUIREMENTS

- A. Unless otherwise specified, the requirement to submit product data and samples for approval will be waived for products specified by brand name if the specifically named products are furnished for the Work. In such cases, submit required Product Data to the Engineer.

1.06 ADMINISTRATIVE REQUIREMENTS

- A. Identify all submittals by project title and number. Include Contractor's name, date, and revision date. On shop drawings, product data and samples, also include the name of the supplier and subcontractor (if any), and applicable specification section number. Stamp each submittal and initial or sign the stamp to certify review and approval of submittal.
- B. Assemble submittals in accordance with the requirements in the individual sections of the Specifications and as required by this section. It is the Contractor's responsibility to review and verify that all information required for each submittal is included in the submittal package. Errors or omissions found by the Contractor are to be corrected prior to the submission of the submittal package for approval. Incomplete submittal packages that have been submitted for review and approval will be returned.
 - 1. It is the Contractor's responsibility to verify that portions of the submittal package to be provided by a subcontractor (or supplier) are complete, as well as portions of the submittal package being provided directly by the Contractor.
 - 2. Do not combine the submittals of more than one specification section with submittals required by other specification sections unless specifically stated in the contract specifications.
- C. If a submittal is based on, or the result of, a change order or field order to the Contract documents, include copies of the applicable change order or field order with the submittal.

1.07 ELECTRONIC SUBMITTALS

- A. Electronic submittals shall be used to provide copies of product manufacturer data, etc to both the Department and Engineer. The intent for using the electronic submittals is to expedite the construction process by reducing paperwork, improving information flow, and decreasing submittal review turnaround time.
 - 1. Project submittals (shop drawing, product data and quality assurance submittals) shall be transmitted by the Contractor in Portable Document Format (PDF) to the Department and Engineer for review.
- B. For each submittal, the Contractor shall review and apply electronic stamp certifying that the submittal complies with the requirements of the Contract Documents, including verification of manufacturer/product, dimensions and coordination of information with other parts of the work.

- C. It is the Contractor's responsibility to provide the submittals in a PDF format. The contractor may use any of the following options:
1. Subcontractors and suppliers provide electronic submittals in PDF format to the Contractor.
 2. Subcontractors and suppliers provide paper submittals to the Contractor, who electronically scans and converts them to PDF format.
 3. Contract a Scanning Service, which will allow the Contractor and the Contractor's subcontractors and suppliers to provide paper submittals to the Scanning Service, which electronically scans and converts them to PDF format.
- D. Image Quality:
1. Image resolution: The PDF files shall be created at a minimum resolution of 300 dots per inch utilizing the original document size. The Contractor will be responsible to increase the resolution of the scanned file or images being submitted as required to adequately present the information.
 2. Image Color Rendition: When information represented requires color to convey the intent and compliance, provide full color PDF reproduction.
- E. Internet Service and Equipment Requirements:
1. The Contractor will be required to have an Email address and Internet access at Contractor's main office.
 2. Unless the Contractor will exclusively be using a Scanning Service to create all PDF documents, the Contractor will be required to own a PDF reviewing, creating and editing software, such as Adobe Acrobat (www.adobe.com), Bluebeam PDF Revu (www.bluebeam.com), or other similar PDF reviewing, creating and editing software for applying electronic stamps and comments.
- F. Administration and Cost:
1. The Construction Contractor shall include the full cost of Submittals in their proposal. This cost is included in the Contract Amount. Contact service provider to verify cost prior to bid.

1.08 SHOP DRAWINGS

- A. Provide shop drawings in the format required by the Section VIII General Conditions of the Contract Documents and as specified. Show the information, dimensions, connections and other details necessary to insure that the shop drawings accurately interpret the Contract Documents. Show adjoining construction in such detail as required indicating proper connections. Where adjoining connected construction requires shop drawings or product data, submit

such information for approval at the same time so that connections can be accurately checked.

- B. Have shop drawings prepared by a qualified detailer. Shop drawings shall be neatly drawn and clearly legible. Machine duplicated copies of Contract Drawings will not be accepted as shop drawings.
 - 1. Where shop drawings are indicated to be drawn to scale:
 - a. Use scale normally found on an "Architect" or "Engineer" scale.
 - b. Written Scale: Clearly label scales being used on each drawing and/or on each detail on the drawing. 1) Examples: $1/8'' = 1'-0''$ $1'' = 40'-0''$.
 - c. Graphic Scale: Adjacent to each Written Scale, provide a graphic scale delineating the scale being used. Graphic scale shall be divided into measuring units relating to the accuracy required for the drawing or details.
 - d. Clearly dimension key elements of the drawing or detail.
 - 2. When the drawing sheet is printed full size, the minimum text size shall be $1/8''$ (3.2 mm) for hand drafting and $3/32''$ (2.5 mm) for CADD drawings.
- C. Submit the shop drawings as both a hard copy and electronic copy to the Engineer. Engineer shall review and approve or disapprove shop drawings in 14 days and if revisions are necessary the Contractor shall promptly correct the deficiencies and resubmit the shop drawings meeting Contract requirements.

1.09 PRODUCT DATA

- A. Provide product data in the format required by the specifications. Modify product data by deleting information that is not applicable to the project or by marking the product data to identify pertinent products. Supplement standard information, if necessary, to provide additional information applicable to project.
- B. Submit all product data as both a hard copy and electronic copy to the Engineer. The product data will be reviewed and upon approval the Contractor will receive email notice of completed review. If the review results in disposition, the Contractor shall promptly correct the deficiencies and resubmit the product data meeting Contract requirements.

1.10 QUALITY ASSURANCE

- A. Provide quality assurance information in the format required by the specifications, including supporting documentation as required.
- B. Submit all Quality Assurance information as both a hard copy and electronic copy to Engineer. The information will be reviewed and upon approval the

Contractor will receive email notice of completed review. If the review results in disposition of as discussed in Section 1.13, the Contractor shall promptly correct the deficiencies and resubmit the product data meeting Contract requirements.

1.11 TRANSMITTALS

A. Submittal Transmittal

1. Contractor may utilize their own Transmittal Form (or Transmittal Letter) contingent on the Contractor's Transmittal Form includes all information and certifications required by requirements discussed herein.
2. Clearly identify applicable specification section number of submitted item (product data, shop drawing, etc.).

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 01320

PROJECT SCHEDULE

PART 1 - GENERAL

1.01 RELATED REQUIREMENTS AND INFORMATION SPECIFIED ELSEWHERE

- A. Progress Schedule: Section 00001.
- B. General Conditions: Section VIII

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 01400
QUALITY CONTROL

PART 1 GENERAL

1.01 DESCRIPTION

- A. Quality assurance and control of installation
- B. References
- C. Field samples
- D. Inspection and testing laboratory services
- E. Manufacturers' field services and reports

1.02 RELATED SECTIONS

- A. Section 01300 – Submittals
- B. Section 01425 – Sampling

1.03 QUALITY ASSURANCE/CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce work of specified quality.
- B. Comply fully with manufacturers' instructions, including each step in sequence.
- C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Engineer before proceeding.
- D. Comply with specified standards as a minimum quality for the work except when more stringent tolerances, codes, or manufacturer's specified requirements indicate higher standards or more precise workmanship.
- E. Work is to be performed by persons qualified to produce workmanship of specified quality.
- F. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion or disfigurement.

1.04 REFERENCES

- A. Conform to reference standard by date of issue current on date of Contract Documents.
- B. Should specified reference standards conflict with Contract Documents, request clarification from Engineer before proceeding.
- C. The contractual relationship of the parties to the Contract shall not be altered from the Contract Documents by mention or inference otherwise in any reference document.

1.05 MANUFACTURERS' FIELD SERVICES AND REPORTS

- A. When specified in individual specification Sections, require material or product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, test, adjust, and balance of equipment as applicable, and to initiate instructions when necessary.
- B. Individuals to report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.
- C. Submit report in duplicate within 30 days of observation to Engineer for review.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 01425

SAMPLING

1. PART 1 - GENERAL

1.01 DESCRIPTION

- A. The Contractor shall collect, preserve, handle, transport, analyze, and report results in writing of the analyses of site characterization (pre- and post- sampling of the proposed sediment/soil staging area, support area, temporary onsite water treatment facility area, access/haul road, and soil/sediment staging area), as well as imported material, waste characterization and limits of excavation confirmatory samples. The contractor shall also collect, preserve, handle, transport, analyze, and report results in writing of the analyses of the water samples collected from the effluent of the temporary onsite water treatment facility prior to discharge to the City of Dunkirk sanitary sewer.
- B. The Engineer shall approve all sample locations prior to collection and shall be present during sampling. A site survey shall be required prior to collection of any proposed samples.
- C. Sampling and analytical methods and procedures for waste characterization, pre-and post-site characterization, imported material and soil confirmatory sampling shall be in accordance with Article 3.03 of this specification in accordance with the Contractor's site-specific QAPP and in accordance with Article 3.03 of this specification.
- D. The pre-determined excavation limits shown on the Contract Drawings are based on the results of the sampling performed by the Department during the remedial and design investigations. Based on these results, the Engineer estimated the area and depth of excavation for the in-place characterization of excavated soil as hazardous and non-hazardous. Additional sampling shall be performed to fill in certain gaps in the confirmatory sampling, as well as to satisfy the off-site landfill requirements (if any); this sampling shall be performed by the Contractor at their expense.
- E. All samples collected shall be analyzed at an Environmental Laboratory Accreditation Program (ELAP) certified laboratory. All labs shall be required to conform to the latest version of regulations for ELAP certification.
- F. Confirmatory Sampling - The Contractor shall collect post excavation bottom and sidewall confirmatory samples from the excavations as described in these specifications, and as directed by the Engineer to confirm the extent of contamination and to allow the Engineer to verify the limits of excavation.
- G. Waste Characterization Sampling - The Contractor shall collect waste characterization samples from soils and sediments in staged stockpiles as well as samples from other materials resulting from demolition activities that are to be disposed of offsite (such as concrete and wood) to satisfy the off-site landfill requirements, as directed by the Engineer.
- H. Pre- and Post- Site Characterization - The Contractor shall collect pre- and post- site characterization samples from the proposed decontamination area(s), temporary onsite water treatment facility area, access/haul road, support zone, soil/sediment staging area

and any other area as directed by Engineer. Areas presented on the Contract Drawings and collected samples shall be analyzed to confirm if any contamination is present prior to the construction of the facility or after the facility has been removed.

- I. Imported Material Sampling – Contractor shall collect backfill material samples in accordance with DER-10 Technical Guidance for Site Investigation and Remediation or provide documentation certifying the material meets DER-10 guidance requirements.
- J. Water Treatment Sampling - The Contractor shall collect a representative water sample from the effluent of the temporary onsite water treatment facility to satisfy the City of Dunkirk’s Chapter 63 – Sewer Use, Article VI- Prohibited Sewer Uses, as directed by the Engineer. An effluent sample will be collected at a frequency of at least one (1) per week. The frequency of collection may increase, as directed by the Engineer, if the analytical results indicate a “breakthrough” between weekly sampling.
- K. All samples will be collected and analyzed in accordance with NYSDEC regulatory guidance documents DER-10–Technical Guidance for Site Investigation and Remediation and CP-51–Soil Cleanup Guidance.
- L. The Contractor shall provide all drilling and sampling equipment deemed necessary to collect the specified samples. If non-dedicated sampling equipment is utilized, decontamination by Contractor will be required between sample locations.
- M. All costs associated with sampling under this specification, unless otherwise specified, shall be paid under Payment Items UC-12 through UC-22.

1.02 RELATED SECTIONS

- A. Section 01110 – Summary of Work
- B. Section 01400 – Quality Control
- C. Section 02220 – Demolition of Structures
- D. Section 02230 – Earthwork
- E. Section 02240 – Transportation and Disposal
- F. Section 02330 – Site Restoration.

2. PART 2 - PRODUCTS

Not Applicable.

3. PART 3 - EXECUTION

3.01 SOIL/SEDIMENT SAMPLES

A. Confirmatory Sampling:

- 1. Confirmatory samples will be collected to meet the following frequency:

- Approximately one sample per 625 square feet of bottom area and one sample per 30 linear feet of sidewall (24-hour turnaround) or as directed by the Engineer.
 - The sampling frequency and the anticipated limits of excavation are presented on the Contract Drawings.
 - Three (3) post-excavation surficial samples will be collected from the bedrock in Willowbrook Pond. The samples will be collected at existing sample locations SS-9, SED-2, and SED-5.
2. The Contractor shall utilize EPA Standard Method SW-846, Method SW8082 – for analysis of PCBs; the Contractor shall utilize EPA Method SW8270 for analysis of SVOCs; the Contractor shall utilize EPA Method SW8260 for analysis of VOCs; the Contractor shall utilize EPA Method SW6010/7471 for metals; and the Contractor shall utilize EPA Method 600/R-93-116 for asbestos, as specified herein and as directed by the Engineer.

B. Pre- and Post- Site Characterization Sampling:

1. Pre- and post- site characterization samples will be collected to meet the following frequency, or as directed by the Engineer:
- Decontamination Area – One (1) pre- and one (1) post-construction grab sample will be collected from the location of the proposed decontamination area. The samples will be analyzed with standard turnaround time.
 - Water Treatment Facility Area – One (1) pre- and one (1) post-construction grab sample will be collected from the location of the proposed water treatment facility area. The samples will be analyzed with standard turnaround time.
 - Access/Haul Road – Five (5) pre- and five (5) post-construction grab samples will be collected from the location of the proposed access/haul road. The samples will be evenly spaced over the entire length of the haul road from beginning to end. The samples will be analyzed with standard turnaround time.
 - Support Zone – One (1) pre- and one (1) post-construction grab sample will be collected from the location of the proposed support zone area. The samples will be analyzed with standard turnaround time.
 - Soil/Sediment Staging Area – Four (4) pre- and four (4) post-construction grab samples will be collected from the location of the proposed soil/sediment staging area. One (1) pre- and one (1) post-sample will be collected from each quadrant of the soil/sediment staging area. The samples will be analyzed with standard turnaround time.
 - Based on this sampling frequency, and the anticipated limits of the proposed facilities presented on the Contract Drawings, it is anticipated that a total of approximately 24 pre-and post-construction samples will

need to be collected. Sample frequency may be adjusted, if deemed necessary by Engineer.

2. The Contractor shall utilize EPA Standard Method SW-846, Method SW8082 – for analysis of PCBs; the Contractor shall utilize EPA Method SW8270 for analysis of SVOCs; the Contractor shall utilize EPA Method SW8260 for analysis of VOCs; the Contractor shall utilize EPA Method SW6010/7471 for metals; and the Contractor shall utilize EPA Method 600/R-93-116 for asbestos, as specified herein and as directed by the Engineer.

C. Waste Characterization Sample:

1. Waste characterization samples will be collected to meet the frequency shown in DER-10 Technical Guidance for Site Investigation and Remediation Table 5.4(e)10 Recommended Number of Soil Samples Imported to or Exported from a Site.
2. The Contractor shall utilize EPA Standard Method SW-846, Method SW8082 – for analysis of Total PCBs; the Contractor shall utilize EPA Method SW8270 for TCLP analysis of SVOCs; the Contractor shall utilize EPA Method SW8260 for TCLP analysis of VOCs; the Contractor shall utilize EPA Method SW6010/7471 for TCLP analysis of metals; the Contractor shall utilize EPA Method SW8081 for TCLP analysis of pesticides; and the Contractor shall utilize EPA Method 8151 for TCLP analysis of herbicides, as specified herein and as directed by the Engineer.

D. Imported Fill Material Sampling:

1. Imported Fill Material samples will be collected to meet the frequency shown in DER-10 Technical Guidance for Site Investigation and Remediation Table 5.4(e)10 Recommended Number of Soil Samples Imported to or Exported from a Site and/or documentation shall be provided certifying clean materials to the Engineer.
2. The Contractor shall utilize EPA Standard Method SW-846, Method SW8082 – for analysis of PCBs; the Contractor shall utilize EPA Method SW8270 for analysis of SVOCs; the Contractor shall utilize EPA Method SW8260 for analysis of VOCs; the Contractor shall utilize EPA Method SW6010/7471 for metals; and the Contractor shall utilize EPA Method 600/R-93-116 for asbestos, as specified herein and as directed by the Engineer.

E. Quality Assurance and Quality Control:

1. One set of QA/QC samples will be collected for every 20 confirmation, pre-and post-construction or waste characterization samples collected. One set of QA/QC samples will consist of an MS/MSD, duplicate, and blank as required by the laboratory.
2. Soil QA samples shall be analyzed for the following:

- a) SW-846 Method 8082 with category B deliverables (PCBs)
 - b) SW-846 Method 8270 with category B deliverables (SVOCs)
 - c) SW-846 Method 8260 with category B deliverables (VOCs)
 - d) SW-846 Method 6010/7471 with category B deliverables (metals)
 - e) EPA Method 600/R-93-116 for asbestos
3. Soil/sediment QA samples will be considered environmental samples (i.e., not waste samples), and will 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). One matrix spike plank analysis for every MS/MSD set is required also, in order to substantiate any matrix interferences. In addition, field duplicate QC sample is required. One (1) field duplicate sample shall also be collected and analyzed. Field rinsate blank samples are not required if dedicated sampling equipment is utilized.
 4. If the waste characterization, pre- and post-construction or confirmatory sampling results are not within acceptable QA/QC ranges (as stated in the Contractor's QAPP), the Contractor shall collect and analyze an additional sample(s) at the location(s) of the sample(s) not meeting QA/QC requirements or at a location directed by Engineer. Additional samples shall be at Contractor's cost.
 5. The Engineer shall review the Contractor's Analytical Data Deliverable Package. If sampling data quality is found not to meet QA/QC requirements as stated in the Contractor's QAPP after this review, the Contractor shall be responsible for all costs to secure sampling data quality even if initial results indicated that the data met all QA/QC requirements. These additional costs could include, but may not be limited to, resampling and reanalysis, further excavation, backfilling, and grading.
- F. A 24-hour turnaround time is required for all samples unless otherwise specified. A 24-hour turnaround time is required on all QA samples collected in the excavations to confirm the extent of contamination. The acceptable laboratory to be utilized for the required work must be advised in advance of this recommendation for adequate participation. The Engineer will require a hard copy of analytical results, including QA/QC results, within 48 hours, with the ASP Category B reporting and deliverable package in electronic (Adobe Acrobat 8.0- or newer.pdf), CLP format to be supplied within two weeks of sample collection.
- G. The Contractor shall request from the laboratory upon submission of the samples for analysis an electronic data deliverable (EDD) in the form of a Microsoft Excel file (.xls or .xlsx) formatted to the specifications of the Department's environmental information management system and suitable for upload to the Department's EQuIS® database. The EDD shall include all sample data and all associated QA/QC sample data. The EDD shall be submitted to the Engineer by the Contractor concurrently with the hard copy of the analytical data package as outlined in section 3.01 F. The Contractor will also provide a list of all field duplicate sample ID's along with the associated parent sample ID. The Contractor

shall provide a latitude and longitude coordinate in decimal degrees for each sample location and a sample depth for samples collected below grade such as sidewall and excavation bottom samples. In instances where a specific sample location coordinate may not be appropriate, the Contractor may provide generalized coordinate such as a general location for stockpiles or the general location of water treatment systems or as directed by the Engineer.

- H. Analytical results shall be reported on dry weight basis.
- I. For all confirmatory soil samples (bottom of excavation and sidewall samples), pre- and post-construction, and soil/sediment characterization samples, Data Usability Summary Reports (DUSRs) will be prepared by an independent third party data validator hired by the Contractor.

3.02 WATER TREATMENT FACILITY EFFLUENT WATER SAMPLES

- A. The sample location will be located after the water treatment train and immediately before the treated water is discharged to the City of Dunkirk sanitary sewer. The Engineer shall be present during sampling.
- B. Sampling and analytical methods and procedures for water sampling shall be detailed in accordance with the Contractor's site-specific QAPP.
- C. Based on sampling frequency, it is anticipated that 10 water samples will need to be collected.
- D. The Contractor shall utilize the following:
 - 1. 40 CFR Method 608 for analysis of PCBs;
 - 2. 40 CFR Method 625 for analysis of SVOCs;
 - 3. 40 CFR Method 624 for analysis of VOCs;
 - 4. 40 CFR Method 200.7 for analysis of metals;
 - 5. 40 CFR Method 1664B for analysis of oil and grease as specified herein and as directed by the Engineer, for the analysis of onsite water treatment facility effluent samples.
- E. One set of QA/QC samples will be collected for every 2 water samples collected. One set of QA/QC samples will consist of an MS/MSD, duplicate, and blank as required by the laboratory.
- F. A 24-hour turnaround time is required for all water samples unless otherwise specified. A 24-hour turnaround time is required on all QA water samples collected. The acceptable laboratory to be utilized for the required work must be advised in advance of this recommendation for adequate participation. The Engineer will require a hard copy of analytical results, including QA/QC results, within 48 hours, with the deliverable package in electronic (Adobe Acrobat 8.0- or newer.pdf), CLP format to be supplied within two weeks of sample collection.
- G. Water QA samples shall be analyzed for the following:

1. 40 CFR Method 608 with category B deliverables (PCBs)
 2. 40 CFR Method 625 with category B deliverables (SVOCs)
 3. 40 CFR Method 624 with category B deliverables (VOCs)
 4. 40 CFR Method 200.7 with category B deliverables (metals)
 5. 40 CFR Method 1664B with Category B deliverables (oil/grease)
- H. Analytical results shall be reported in micrograms per liter (ug/l) or parts per billion (ppb).
- I. Water QA samples will be considered environmental samples, and will 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). One matrix spike blank analysis for every MS/MSD set is required also, in order to substantiate any matrix interferences. In addition, field duplicate QC sample is required. One (1) field duplicate sample shall also be collected and analyzed. Field rinsate blank samples are not required if dedicated sampling equipment is utilized.
- J. If the sampling results are not within acceptable QA/QC ranges (as stated in the Contractor's QAPP), the Contractor shall collect and analyze an additional sample(s) at the location(s) of the sample(s) not meeting QA/QC requirements. A maximum 48-hour turnaround time is required on any additional sampling required. Additional samples shall be at Contractor's cost.
- K. For all water samples, Data Usability Summary Reports (DUSRs) will be prepared by an independent third party data validator hired by the Contractor.
- L. The Engineer shall review the Contractor's Analytical Data Deliverable Package. If sampling data quality is found not to meet QA/QC requirements as stated in the Contractor's QAPP after this review, the Contractor shall be responsible for all costs to secure sampling data quality even if initial results indicated that the data met all QA/QC requirements. These additional costs could include, but may not be limited to resampling and reanalysis.

3.03 SCHEDULE

Parameter	Sample Analysis	Sample Type	Sample Frequency	QA/QC Frequency	Required Turnaround Time	Level of Reporting	Data Validation Required
Confirmatory Excavation Samples							
PCBs	SW-846 EPA 8082	Composite	1 per 30 LF of sidewall and 1 per 625 SF bottom	1 Dup, MS, MSD and blank per 20 samples	24 Hour	Category B	Yes
Metals	SW-846 EPA 6010/7471	Composite	1 per 30 LF of sidewall and 1 per 625 SF bottom	1 Dup, MS, MSD and blank per 20 samples	24 Hour	Category B	Yes
VOCs	SW-846 EPA 8260	Grab	1 per 30 LF of sidewall and 1 per 625 SF bottom	1 Dup, MS, MSD and blank per 20 samples	24 hour	Category B	Yes
SVOCs	SW-846 EPA 8270	Composite	1 per 30 LF of sidewall and 1 per 625 SF bottom	1 Dup, MS, MSD and blank per 20 samples	24 Hour	Category B	Yes
Willowbrook Pond Post-excavation Bedrock Samples							
PCBs	SW-846 EPA 8082	Grab	3 at existing sample locations SS-9, SED-2, and SED-5 See Spec	1 Dup, MS, MSD and blank per 20 samples	24 Hour	Category B	Yes
Metals	SW-846 EPA 6010/7471	Grab	3 at existing sample locations SS-9, SED-2, and SED-5 See Spec	1 Dup, MS, MSD and blank per 20 samples	24 Hour	Category B	Yes
VOCs	SW-846 EPA 8260	Grab	3 at existing sample locations SS-9, SED-2, and SED-5 See Spec	1 Dup, MS, MSD and blank per 20 samples	24 hour	Category B	Yes
SVOCs	SW-846 EPA 8270	Grab	3 at existing sample locations SS-9, SED-2, and SED-5 See Spec	1 Dup, MS, MSD and blank per 20 samples	24 Hour	Category B	Yes
Post-Temporary Facilities							
PCBs	SW-846 EPA 8082	Grab	24 Samples Total See Spec	1 Dup, MS, MSD and blank per 20 samples	24 Hour	Category B	Yes

Metals	SW-846 EPA 6010/7471	Grab	24 Samples Total See Spec	1 Dup, MS, MSD and blank per 20 samples	24 Hour	Category B	Yes
VOCs	SW-846 EPA 8260	Grab	24 Samples Total See Spec	1 Dup, MS, MSD and blank per 20 samples	24 hour	Category B	Yes
SVOCs	SW-846 EPA 8270	Grab	24 Samples Total See Spec	1 Dup, MS, MSD and blank per 20 samples	24 Hour	Category B	Yes
Asbestos	SW-846 600/R-93-116	Grab	24 Samples Total See Spec	1 Dup, MS, MSD and blank per 20 samples	24 Hour	Category B	Yes
Waste Characterization							
TCLP PCBs	SW-846 EPA 8082	Composite	3 Samples	1 Dup, MS, MSD and blank per 20 samples	24 Hour	Category B	Yes
TCLP Metals	SW-846 EPA 6010/7471	Composite	3 Samples	1 Dup, MS, MSD and blank per 20 samples	24 Hour	Category B	Yes
TCLP VOCs	SW-846 EPA 8260	Grab	9 Samples	1 Dup, MS, MSD and blank per 20 samples	24 hour	Category B	Yes
TCLP SVOCs	SW-846 EPA 8270	Composite	3 Samples	1 Dup, MS, MSD and blank per 20 samples	24 Hour	Category B	Yes
TCLP Pesticides	SW-846 EPA 8081	Composite	3 Samples	1 Dup, MS, MSD and blank per 20 samples	24 hour	Category B	Yes
TCLP Herbicides	SW-846 EPA 8151	Composite	3 Samples	1 Dup, MS, MSD and blank per 20 samples	24 Hour	Category B	Yes
Demolition/Debris Characterization							
TCLP PCBs	SW-846 EPA 8082	Composite	3 Samples	1 Dup, MS, MSD and blank per 20 samples	24 Hour	Category B	Yes
TCLP Metals	SW-846 EPA 6010/7471	Composite	3 Samples	1 Dup, MS, MSD and blank per 20 samples	24 Hour	Category B	Yes
TCLP VOCs	SW-846 EPA 8260	Grab	9 Samples	1 Dup, MS, MSD and blank per 20 samples	24 hour	Category B	Yes
TCLP SVOCs	SW-846 EPA 8270	Composite	3 Samples	1 Dup, MS, MSD and blank per 20 samples	24 Hour	Category B	Yes

TCLP Pesticides	SW-846 EPA 8081	Composite	3 Samples	1 Dup, MS, MSD and blank per 20 samples	24 hour	Category B	Yes
TCLP Herbicides	SW-846 EPA 8151	Composite	3 Samples	1 Dup, MS, MSD and blank per 20 samples	24 Hour	Category B	Yes
Imported Material Characterization							
PCBs	SW-846 EPA 8082	Composite	3 Samples	1 Dup, MS, MSD and blank per 20 samples	24 Hour	Category B	Yes
Metals	SW-846 EPA 6010/7471	Composite	3 Samples	1 Dup, MS, MSD and blank per 20 samples	24 Hour	Category B	Yes
VOCs	SW-846 EPA 8260	Grab	9 Samples	1 Dup, MS, MSD and blank per 20 samples	24 hour	Category B	Yes
SVOCs	SW-846 EPA 8270	Composite	3 Samples	1 Dup, MS, MSD and blank per 20 samples	24 Hour	Category B	Yes
Pesticides	SW-846 EPA 8081	Composite	3 Samples	1 Dup, MS, MSD and blank per 20 samples	24 hour	Category B	Yes
Herbicides	SW-846 EPA 8151	Composite	3 Samples	1 Dup, MS, MSD and blank per 20 samples	24 Hour	Category B	Yes
Water Treatment Plant Effluent							
PCBs	40 CFR EPA 608	Grab	1 per week	1 Dup, MS, MSD and blank per 2 samples	24 hour	Category B	Yes
SVOCs	40 CFR EPA 625	Grab	1 per week	1 Dup, MS, MSD and blank per 2 samples	24 hour	Category B	Yes
VOCs	40 CFR EPA 624	Grab	1 per week	1 Dup, MS, MSD and blank per 2 samples	24 hour	Category B	Yes
Metals	40 CFR EPA 200.7	Grab	1 per week	1 Dup, MS, MSD and blank per 2 samples	24 hour	Category B	Yes
Oil and Grease	40 CFR EPA 1664B	Grab	1 per week	1 Dup, MS, MSD and blank per 2 samples	24 hour	Category B	Yes

END OF SECTION

SECTION 01500

CONSTRUCTION FACILITIES & TEMPORARY CONTROLS

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Provide construction facilities and temporary controls necessary for the Work, unless otherwise indicated.
 - 1. Provide temporary facilities and contingency equipment/controls as specified herein and as shown on the Contract Drawings. The facilities shall be kept operational and maintained by the Contractor throughout the duration of construction activities. These facilities include but may not be limited to:
 - a. Contractor Field Office and storage sheds
 - b. Engineer/Department Field Office
 - c. Access/temporary roadways
 - d. Trash/rubbish storage dumpster(s)
 - e. Equipment staging areas
 - f. Temporary Onsite Water Treatment Facility Area
 - g. Soil/sediment Staging Area
 - h. Equipment/Personnel Decontamination Area
 - 2. Any Contractor who requires additions to the construction facilities and temporary controls specified to be provided by another Contractor, shall provide and maintain them.

1.02 RELATED SECTIONS

- A. Section 01560 Erosion and Surface Water Control
- B. Section 16001 Electrical Work
- C. Section 02140 Dewatering
- D. Section 02220 Demolition of Structures
- E. Section 02810 Decontamination

1.03 SUBMITTALS

- A. The Contractor shall submit drawings following Notice to Proceed and prior to the pre-construction meeting to the Engineer for approval, showing the layout, furnishings, and facilities of the field office trailer and information concerning how the Contractor proposes to finish the required utilities.

PART 2 - PRODUCTS

2.1 MATERIALS AND EQUIPMENT

- A. Provide new or used materials and equipment that are undamaged and in working condition.
- B. Provide only materials and equipment that are recognized as being suitable for the intended use (through compliance with appropriate standards and regulations).
- C. Materials for erosion control shall comply with the guidelines contained in the approved storm water and erosion control plan.
- D. Temporary fencing shall be Tenax Alpi or equal.

2.2 WATER SERVICE

- A. Provide valves with adequate temperature and pressure ratings for the intended use.
- B. Provide back flow protection or adequate vacuum breakers.
- C. Provide heavy-duty, abrasion-resistant hoses with a pressure rating greater than the maximum pressure of the water system.
- D. Provide adequately sized hot water heater.

2.3 ELECTRICAL SERVICE

- A. Provide written plan for electrical service while on site with appropriate approvals as necessary.
- B. Provide materials that comply with applicable NEMA, NECA, and UL standards and governing regulations of temporary electrical services.
- C. Provide grounded extension cords with waterproof connectors. Use "hard service" cords where there is exposure to abrasion and traffic.
- D. Provide general service lamps and guard cages or tempered glass enclosures where lamp is exposed to breakage by removal operations. Use liquid-tight enclosures or boxes for the devices.

PART 3 - EXECUTION

3.01 GENERAL

- A. Use qualified tradesmen for installation of temporary utilities, facilities, and constructions. Provide utility services as required to perform the work for the duration of the project.
- B. Locate all temporary items where they are approved and in such a manner to cause minimum interference with the project work and operation of the other site activities. Locate services per approved work plan.
- C. Relocate, modify, and extend services and facilities as required to accommodate the Project, or as directed by the Engineer, throughout the course of the work.
- D. Install temporary utilities in accordance with the servicing utility's requirements.
- E. Provide all temporary utilities and connections including electric, water and telephone. Remove temporary utilities and connections upon completion of work. Obtain all necessary permits and permission prior to installation or connection.

3.02 TEMPORARY UTILITIES

- A. Engage the local utility company to install temporary service or make connections to existing service where available for field office and all other locations requiring temporary power during construction activities. Arrange with the utility company for an acceptable time when service can be interrupted to make connections. The Contractor shall be responsible to obtain and pay for permits and construction required to bring temporary utilities to each site.
 - 1. Electric Power Service: Comply with applicable requirements of National Electrical Manufacturers Association (NEMA), National Electrical Contractors Association (NECA) and Underwriters Laboratories (UL) standards and governing regulations.
 - 2. Temporary Telephones: Install two telephone lines in the Engineer's field office. The phone lines shall be equipped to automatically rollover from one line to the other. Alternatively, Contractor may provide mobile telephone service for field office personnel. Post a list of emergency contact telephone numbers.
 - 3. High Speed Internet Connection: Provide high speed internet connections (DSL or cable) for Engineer's field office.
 - 4. Potable Water Service: Provide potable water service at the temporary field offices for drinking and washing etc. Provide potable water service at the decontamination pad to facilitate equipment decontamination. Provide potable water as necessary for dust control.

3.03 TEMPORARY FACILITIES

A. Engineers Field Office

1. Minimum Construction:
 - a. Mobile office trailer in a condition that is acceptable to Engineer, which is specifically designed for this type of use and conforms to requirements above and below.
2. Minimum Services:
 - a. Interior lighting of 50-foot candles at desk top height.
 - b. Exterior light at entrance.
 - c. Automatic heating to maintain 65°F in winter. Furnish and pay for all fuel.
 - d. Automatic cooling to maintain 75°F in summer.
 - e. Electric service required and pay all charges.
 - f. Four electric wall outlets.
 - g. Reliable telephone connection and high speed internet connection (DSL or cable).
3. Minimum Furnishings:
 - a. Two five-drawer desks.
 - b. Two swivel desk chairs.
 - c. Two waste baskets.
 - d. One tack board 30 inches by 36 inches.
 - e. Fire extinguishers.
 - f. Identifying exterior sign. The sign shall be 2-foot by 3/4-inches thick marine plywood (or aluminum) with white background and black letters. The sign shall read as follows:

FIELD OFFICE
NEW YORK STATE DEPARTMENT
OF
ENVIRONMENTAL CONSERVATION
TELEPHONE: (716) ____-____

Note: The Contractor shall include telephone number on the trailer sign, when available.

- g. First aid kit.
 - h. Outdoor thermometer mounted in shade, but visible for easy reading from inside office.
 - i. Six protective helmets for use by Engineer, Department, and visitors.
 - j. One battery operated smoke detector per each 1,200 square foot of coverage.
 - k. One scanner.
 - l. One photocopy machine.
 - m. Two, three-drawer steel file cabinets.
 - 4. Maintenance:
 - a. Continuous maintenance of office and services. Cleaned not less than once per week.
 - b. Provide soap, paper towels, cleansers, sanitary supplies, janitorial service, and implements.
 - c. Repair immediately any damage, leaks, or defective service.
 - 5. Removal:
 - a. Remove office upon substantial completion of work or when directed by Engineer.
- B. Contractors Field Office and Sheds
 - 1. Field Office and Furnishings:
 - a. As required by Contractor, but with sufficient room for project meetings.
 - b. Include conference table, 12 folding chairs, and tackboard.
 - c. Two, three-drawer steel file cabinets.
 - d. One photocopy machine.
 - e. Telephone service.
 - f. Light and heat, as specified under Engineers Field Office.
 - g. Six protective helmets for visitor's use.
 - h. Exterior identifying sign.

- i. Other furnishings at Contractor's option.
 - 2. Storage and Work Sheds:
 - a. Provide storage and work sheds sized, furnished, and equipped to accommodate personnel, materials, and equipment involved, including temporary utility services.
 - 3. Remove field office and sheds upon substantial completion of work or when directed by Engineer.
- C. Access Roads
- 1. The Contractor shall furnish all labor, materials, equipment, and incidentals required to maintain existing, or construct new access and service roads determined to be necessary to perform work included in the contract specifications.
 - 2. The Contractor shall maintain existing and new access roads under this Contract until project substantial completion, and shall promptly refill and grade areas which have settled or are otherwise unsatisfactory for traffic. Contractor shall take record photographs/videotape of access roads to be used by Contractor's construction equipment and activities prior to the start of construction. After completion of all construction activities, Contractor shall restore areas to match pre-existing topographic conditions unless otherwise directed by the Engineer.
 - 3. The Contractor will be responsible for repairing any damage caused to paved roads along the access/haul route in the areas surrounding the site.
 - 4. Except as otherwise specified herein, the Standard Specifications for Roads and Structures as issued by the State of New York, Department of Transportation (NYDOT), shall apply to material requirements for access road construction.
 - 5. ASTM D698 – Standard Proctor Test Method – Shall be used to meet compaction requirements.
 - 6. Where reference is made to one of the above standards, the revision in effect at the time of bid opening shall apply.
 - 7. The Contractor shall submit results of recent gradation and modified Proctor test of proposed crushed stone paving material to the Engineer.
 - 8. Nonwoven Geotextile Fabric
 - a. See Section 02230 – Earthwork Articles 2.02 A and 3.07 A-D.
 - 9. Stone aggregate for newly constructed access roads shall meet the requirements of subbase Coarse Type 2 described in Section 02230 – Earthwork Article 2.01 B or an approved equivalent by the Engineer.

10. Finished excavation and grading shall be uniformly smooth, well compacted, and free from irregular surface changes. The degree of finish shall be obtainable from either blade-grader or scraper operations. The finished surface shall not be more than 0.10 feet above or below the new grade.
11. Prior to placing crushed stone paving, the exposed subgrade shall be proofrolled. Proofrolling shall be performed with a loaded CAT D300D truck or equivalent, or as directed by the Engineer.
12. Soft, wet, organic, or other unsuitable materials identified during proofrolling shall be undercut and backfilled, if directed by the Engineer.

D. Staging Areas

1. Staging areas shall be located on the site as shown on the Contract Drawings or in areas approved by the Engineer in order to minimize possible cross contamination.
2. The staging areas shall have a lined bottom with a minimum 40-mil sealed, HDPE watertight liner (Section 02230 – Earthwork).
3. Waste materials shall be covered at all times with a minimum 20-mil HDPE sealed, watertight liner to prevent contaminated runoff (Section 02230 – Earthwork).
4. All staging areas shall be constructed to prevent the spread of any contamination to the surrounding soils, surfaces, and/or groundwater.
5. Water spray or equivalent shall be utilized, as necessary, to prevent dust generation. Monitoring shall be provided to ensure that unacceptable levels of dust generated from the movement and handling of soil do not migrate from the site.
6. Shop Drawings of all staging areas shall be submitted by the Contractor to the Engineer for review and approval prior to the start of work.
7. If a pre-loading soil staging area is located in a contaminated zone, no lined bottom will be required.

E. Sanitary Facilities

The Contractor shall provide self-contained chemical toilet units in an amount based on the total number of workers employed on the Project, in accordance with the provisions of the Health and Sanitary Codes of the State of New York. Provide adequate sanitary facilities for both male and female on-site personnel. The Contractor may locate some of them in the work area. Those that are located outside the work area shall be located where approved by the Engineer and screened from public view. At the completion of the remediation work, units within the work area shall be decontaminated prior to their removal from the

enclosures. Units shall be maintained by cleaning with cleaning supplies weekly or more frequently, if necessary, throughout the project work period.

F. Equipment/Personnel Decontamination Area

1. The Contractor shall be responsible for the installation of the equipment/decontamination pad shown on the Contract Drawings and which shall meet the following criteria:
 - a. Adequate dimensions to contain wash water and debris obtained from the largest sized vehicles deployed in the Work area.
 - b. Perimeter to be curbed with soil berm.
 - c. Impervious medium (40-mil geomembrane) required to prevent seepage into the ground (See Section 02230 – Earthwork).
 - d. Sump and pumping equipment/facilities adequate to pump decontamination water/rinse to water treatment system.
2. Complete details of the decontamination pads shall be submitted to the Engineer for his approval, prior to commencement of the construction.
3. Collection sump shall be pumped out periodically and decontamination water shall be treated on-site in accordance with Section 02140 - Dewatering.
4. Decontamination pad pump and sump shall be kept free of accumulations of debris and sediment and shall be washed down after decontaminating each vehicle or as needed or directed. Debris and sediment shall be removed and relocated to the soil staging area for disposal off-site by the Contractor.
5. When no longer required, decontamination pad and appurtenances shall be decommissioned unless otherwise directed by the Engineer. All equipment and materials from the pad shall be decontaminated, removed from the site and disposed of by the Contractor.

G. Support/Equipment Lay Down Area

1. The Contractor shall be responsible for the installation of the support /equipment lay down area as shown on the Contract Drawings and shall meet the following criteria:
 - a. Adequate dimensions to place and/or equipment and materials required to perform the work.
 - b. Perimeter to be curbed with soil berm.
 - c. Impervious medium (40-mil geomembrane) required to prevent seepage into the ground (See Section 02230 – Earthwork).

- d. Sump and pumping equipment/facilities adequate to pump water collected within the support/lay down area to the temporary onsite water treatment facility.
2. Complete details of the support/lay down area shall be submitted to the Engineer for his approval, prior to commencement of the construction.
3. Collection sump shall be pumped out periodically and collected water shall be treated on-site in accordance with Section 02140 – Dewatering.
4. Support/lay down area pump and sump shall be kept free of accumulations of debris and sediment and washed down as needed or as directed by the Engineer. Debris and sediment shall be, removed and relocated to the soil staging area for disposal off-site by the Contractor.
5. When no longer required, support/lay down area and appurtenances shall be demolished unless otherwise directed by the Engineer. All equipment and materials from the pad shall be decontaminated, removed from the site and disposed of by the Contractor.

H. Temporary Onsite Water Treatment Facility Area

1. The Contractor shall be responsible for the installation of the Temporary Onsite Water Treatment Facility Area which shall meet the following criteria:
 - a. Adequate dimensions to contain the equipment and materials required to operate the temporary water treatment system.
 - b. Perimeter to be curbed with soil berm.
 - c. Impervious medium (40-mil geomembrane) required to prevent seepage into the ground (Section 02230 – Earthwork).
 - d. Sump and pumping equipment/facilities adequate to pump water collected within the temporary onsite water treatment facility area into water treatment system.
2. Complete details of the temporary onsite water treatment facility area shall be submitted to the Engineer for his approval, prior to commencement of the construction.
3. Collection sump shall be pumped out periodically and collected water shall be treated on-site in accordance with Section 02140 - Dewatering
4. Temporary onsite water treatment facility area pump and sump shall be kept free of accumulations of debris and sediment and washed down as needed or as directed by the Engineer. Debris and sediment shall be, removed and relocated to the soil staging area for disposal off-site by the Contractor.

5. When no longer required, temporary onsite water treatment facility area and appurtenances shall be demolished unless otherwise directed by the Engineer. All equipment and materials from the pad shall be decontaminated, removed from the site and disposed of by the Contractor.

I. Soil/Sediment Staging Area

1. The Contractor shall be responsible for the installation of the soil/sediment staging area which shall meet the following criteria:
 - a. Adequate dimensions to temporarily contain the soil and sediment excavated as part of the remediation.
 - b. Perimeter to be curbed with soil berm.
 - c. Impervious medium (40-mil geomembrane) required to prevent seepage into the ground.
 - d. Sump and pumping equipment/facilities adequate to pump leachate water to the temporary onsite water treatment facility.
2. Complete details of the soil/sediment staging area shall be submitted to the Engineer for his approval, prior to commencement of the construction.
3. Collection sump shall be pumped out periodically and leachate water shall be treated on-site in accordance with Section 02140 - Dewatering.
4. Decontamination pad pump and sump shall be kept free of accumulations of debris and sediment and shall be washed down after decontaminating each vehicle or as needed or directed. Debris and sediment shall be removed and relocated to the soil staging area for disposal off-site by the Contractor.
5. When no longer required, soil/sediment staging area and appurtenances shall be demolished unless otherwise directed by the Engineer. All equipment and materials from the pad shall be decontaminated, removed from the site and disposed of by the Contractor.

J. Parking

1. Parking requirements:
 - a. Park vehicles in areas where directed by Engineer.
 - b. Keep designated parking areas clear of dirt and debris resulting from the Work.
 - c. Remove ignition key from unattended vehicles and lock doors.

- d. Remove snow from parking areas if construction operations are conducted in cold weather conditions.

3.04 TEMPORARY CONTROLS

A. Fire Prevention

1. Take all precautions necessary and required to prevent fires.
2. Volatile liquids shall not be used within a temporary enclosure.
3. Provide a minimum of two extinguishers for each separate and active enclosure.
4. The Contractor shall contact the Fire Company to make sure they are familiar with the Contractor's operations.

B. Noise, Vibration, and Dust Control

1. Conduct operations to cause least annoyance to residents in vicinity of work, and comply with applicable local ordinances.
2. Equip compressors, hoists, and other apparatus with such mechanical devices as may be necessary to minimize noise, vibration, and dust. Equip compressors with silencers on intake lines.
3. Equip gasoline or oil-operated equipment with silencers or mufflers on intake and exhaust lines.
4. Provide unpaved roads, detours, or haul roads used in construction areas with water treatment to minimize dust. No visible dust, as determined by the Engineer, will be permitted beyond the limits of the exclusion zone.
5. Contractor is responsible for providing all sound barriers needed to meet the requirements of these specifications. Contractor is responsible for all costs related to the manufacturer's representatives or consultants (contractors) who specialize in addressing such problems.
6. The Contractor is responsible for providing, operating, and maintaining a street sweeper of sufficient size to clean public roads near the site if truck traffic from the site causes a problem; this will be on an as needed basis as determined by the Engineer. All soils/waste generated and collected from road surface shall be properly disposed off site by the Contractor.

B. Water Control

1. Exercise care in project drainage practice to prevent pollution of watercourses.
2. The Contractor shall be fully responsible for any and all damages to life and property that occur as a result of his activities. Damages resulting

from polluting watercourses shall be repaired, restored, or compensated for by the Contractor.

3. Grade construction areas so as to minimize retention of rainwater, except as specified hereafter. Provide temporary rainwater runoff diversion around construction areas.
4. Comply with procedures outlined in EPA manuals entitled, Guidelines for Erosion and Sedimentation Control Planning and Implementation, EPA-72-015, and Processes, Procedures, and Methods to Control Pollution Resulting from All Construction Activity, EPA 43019-73-007, as well as NYSDEC's document entitled New York State Standards and Specifications for Erosion and Sediment Control, August 2005.

C. Pollution Control

1. Maintain work areas on and off site free from further environmental pollution that would be in violation of any Federal, State, or local regulations.
2. Minimize air pollution by wetting down bare spots with clean water, requiring use of properly operating combustion emission control devices on construction vehicles and equipment used by Contractors, and encouraging shutdown of motorized equipment not actually in use.
3. Any emissions during site activities that may have an adverse health effect on workers or the community shall be suppressed to the extent possible.
4. Chemicals used, whether herbicide, pesticide, disinfectant, polymer, reactant, or other classification, must be approved by either EPA or USDA or any other applicable regulatory agency and the Engineer, and be used in a manner as their original purpose was intended.
5. Use of such chemicals and disposal of residues shall be in conformance with manufacturers' instructions.
6. Use of chemicals must be approved in advance by the Engineer.
7. The Contractor shall provide that the generated project hazardous waste (if any) and any existing hazardous waste to be removed under this project shall be transported, manifested, and disposed in accordance with the current regulations.
8. More specific requirements are given in other sections of this document.

D. Traffic Control

The Contractor shall maintain all temporary road access routes. Temporary access roads will be repaired, as necessary, to insure unimpeded daily operations

of businesses, schools, and residents in the area. This may include, at a minimum, routine grading of the temporary access roads.

The Contractor will be responsible for repairing any damage caused to paved roads along the access/haul route in the areas surrounding the site. Videotaping of the roads along the proposed access/haul route will be required to be performed by the Contractor.

E. Rubbish Control (Non-contaminated)

1. Clean up the debris resulting from the work at the end of each day and leave work areas clean.
2. Remove debris from the site at least once a week or more often if it presents a fire hazard or becomes excessive. Burning of waste material will not be permitted.

3.05 PROTECTION OF WORK AND EXISTING PROPERTY

- A. Protect installed Work and existing property during performance of the Work.
- B. Maintain temporary facilities in a watertight condition during performance of the Work.
- C. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.
- D. Protect smoke detectors from airborne dust and debris.
1. At the beginning of each work day, provide protective coverings over smoke detectors in areas where airborne dust and debris will be generated by the Work.
 2. At the end of the work day, clean the areas in which the smoke detectors are located by whatever means necessary to assure that airborne dust and debris will not contaminate the smoke detectors, then remove protective coverings.
 3. Provide signs, instructions and alternate methods for reporting a fire during the periods that the smoke detectors are covered.
 4. Notify the Engineer and have procedures approved.
- E. Prohibit traffic from landscaped areas.

3.06 BARRIERS AND ENCLOSURES

- A. Provide barriers during performance of the Work to:
1. Prevent unauthorized entry to work areas.

2. Allow for Department/Engineer occupancy/access of areas to the Site.
3. Protect existing facilities and adjacent properties from damage.
4. Protect vehicular and pedestrian traffic.
5. Temporary Dust Control: Provide temporary dust control to prevent the spread of dust from the work areas. Use water to wet surface of any work areas where dust accumulates or as directed.

3.07 SECURITY

- A. The Contractor shall be responsible for all costs associated with installation, maintaining, and removing Work area security measures instituted during the various phases of construction. Site security will be maintained seven days a week, twenty-four hours per day for the length of the project. This shall include, but is not limited to, the maintenance of existing fences, and providing additional temporary fencing along or near the perimeter of the work limits to completely enclose and secure the work area. Contractor shall safely guard all work, materials, equipment, and property from loss, theft, damage, and vandalism. Contractor's duty to safely guard property shall include Department/Engineer's and other private property from injury or loss during the performance of the Contract.
- B. Contractor shall make good all damage to property and others arising from failure to provide adequate security.
- C. The Contractor shall inspect site perimeter fencing (including temporary fencing at the site perimeter) to verify that the fencing is in good condition. If perimeter fencing becomes disturbed and/or damaged at any time during the construction activities, the Contractor shall immediately repair and/or replace the disturbed/damaged section of fencing. If existing fencing or barriers are breached or removed for purposes of construction, Contractor shall provide and maintain temporary security fencing equal to the existing.
- D. Warning signs shall be posted along the perimeter fencing at a minimum frequency of one every 100 feet and at entrance gates. Signs shall read "UNAUTHORIZED ENTRANCE TO THE WORK AREA IS PROHIBITED", with black lettering on a white surface. Signs shall be rectangular in shape with a minimum dimension of 24 inches wide of 18 inches high. Signs shall be attached to the fencing securely, maintained during construction and removed upon project completion.
- E. The Contractor shall restrict access of persons and vehicles into the construction site and shall allow entrance only to authorized persons with proper identification.
- F. The Contractor shall maintain log of workers and visitors and make available to the Department and Engineer on request. The log shall include the date, name, address, company employed by, company/person visited, time in and time out for each person, and record of deliveries and security incidents.

3.08 REMOVAL

- A. Maintain all temporary facilities and controls as long as needed for the safe and proper completion of the work, on a weekly basis and more frequently if conditions presented cause additional cleaning and maintenance to be performed.
- B. Remove all such temporary facilities and controls as soon as safe progress of the work will permit.

END OF SECTION

SECTION 01560

EROSION AND SURFACE WATER CONTROL

PART 1 - GENERAL

1.01 SCOPE OF WORK

- A. The Contractor shall furnish all labor, tools, materials, equipment, and incidentals necessary for the proper completion of all related erosion control as specified in the Contract Documents, detailed on the Contract Drawings and herein.
- B. The Contractor shall provide positive means of erosion control (see "New York Guidelines for Urban Erosion and Sediment Control" Third printing 10/91 USDA - Soil Conservation Service, as well as NYSDEC's Document entitled New York State Standards and Specifications for Erosion and Sediment Control, August 2005) around work areas and any stockpile areas to prevent contaminant migration. Surface waters within work areas may be diverted into settling (infiltration) basins or into other approved drainage ways provided approved methods are used to reduce the amount of sediment contained in the water prior to discharge. At the completion of the remedial work, ditches shall be backfilled and the ground surface restored to original conditions.

1.02 RELATED SECTIONS

- A. Section 01500 - Temporary Facilities and Controls.
- B. Section 02110 - Clearing and Grubbing
- C. Section 02230 - Earthwork

1.03 SUBMITTALS

- A. The Contractor shall submit a written Work Plan that shall detail the Contractor's operation and shall include all activities that will relate to the contaminated fill/waste excavation and remediation (i.e., excavation plan, sampling plan, etc.) subject to the approval of the Engineer. The Work Plan must detail erosion control methods and surface water management procedures which will be implemented by the Contractor throughout the work.
- B. The Contractor shall submit a written Storm Water Pollution Prevention Plan (SWPPP), as described in the Contract Documents.

PART 2 - PRODUCTS

- A. Mulches: Hay, straw, wood cellulose, fiber mats, geotextiles, silt fences, and other materials approved by the Engineer.

PART 3 - EXECUTION

- A. The Contractor shall adhere strictly to the provisions of the approved Work Plan and shall control and manage surface water in every area where Contractor activities take place.

The actual methods shall be chosen by the Contractor; however, the Engineer must approve any method before construction begins.

- B. Surface water from undisturbed areas outside of the excavation shall be prevented from entering areas where construction or work is in progress or contaminated areas.
- C. In the event surface runoff is the cause of existing clean areas, or subsequently cleaned areas, becoming contaminated, the affected areas shall be cleaned in accordance with instructions given by the Engineer. The Contractor shall be responsible for all costs associated with mitigating the affects of contaminated runoff migrating to clean areas or off site during the duration of the contract.
- D. Maintain all sediment and erosion control and surface water control measures weekly and more frequently if conditions presented cause additional repair, control, and maintenance to be performed or as required by the Engineer.
- E. A SWPPP will be required to be submitted by the Contractor to the Engineer for review and approval. As such there will be no fees associated with the SWPPP submittal process. The following items shall be included within the SWPPP:
 - 1. Identify potential sources of pollution which may be reasonably expected to affect the quality of storm water discharge from the site.
 - 2. Describe and ensure implementation of practices which will be used to reduce the pollutants in storm water discharge from the site.
 - 3. Ensure compliance with terms of the State of New York permit for storm water discharge.

END OF SECTION

SECTION 01580

SURVEY CONTROL

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Established survey control points are available on-site for construction purposes as described on Construction Contract Drawing. The Contractor shall verify locations of survey control points prior to starting work. The Contractor shall safeguard all survey control points. Should any of these points be damaged or destroyed, the Contractor shall replace the control point at no cost to the Department. The Contractor shall assume the entire expense of rectifying work improperly constructed due to failure to maintain and protect such established survey control points.
- B. The Contractor shall be responsible for the layout of the construction and any additional survey control points, grid coordinate locations, lines, grades, and levels necessary for the proper construction and testing of the work required in the Contract Documents. Survey control shall be used at a minimum to maintain established layout, specified slopes, specified depths, and specified thicknesses.
- C. The Contractor shall employ a surveyor using standard practices and datum for the State of New York to provide the surveying functions necessary for the proper execution of the work, to provide measurement for payment, and to document and record the final completed work.
- D. The Contractor is responsible for scheduling the surveys to coincide with construction activities. If the survey documentation shows improper locations, slopes, elevations, or layer thicknesses, the Contractor shall correct the deficiency and re-survey the re-work at no additional cost to the Department. Survey documentation may include, but not be limited to:
 - 1. Initial field verification survey, as described in Sub-Part 1.03
 - 2. New solid waste boundary;
 - 3. Horizontal and vertical extents of waste excavation between the existing and new solid waste boundaries for the purpose of volume calculations;
 - 4. Location and inverts of installed culverts and detention basin outlet structures;
 - 5. Constructed drainage features including slope benches, downdrains, perimeter drainage channel, drainage swales, etc.;
 - 6. Limit of clearing/ limit of work;
 - 7. Final constructed topography within the limit of grading as required to establish 1-foot contours;
 - 8. Location and elevation of Contractor established survey control points and/or benchmarks;

9. New monitoring well locations and elevations (top of cover, top of riser, and top of casing); and
10. Existing monitoring well locations and elevations (top of cover, top of riser, and top of casing)

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Section 01110 – Summary of Work
- B. Section 01300 – Submittals
- C. Section 01400 – Contractor Quality Control
- D. Section 01700 – Project Closeout Procedures

1.03 SUBMITTALS

- A. On request, submit data demonstrating qualifications of persons providing field engineering and survey services.
- B. On request, submit documentation verifying accuracy of survey work.
- C. The Contractor shall perform a field verification of survey as part of the work prior to the start of construction activities to verify/establish current conditions. The Contractor shall then compare the existing condition information shown on the Construction Contract Drawings to the current conditions determined during the field verification activities. Where discrepancies exist, the Contractor shall submit to the Engineer the results of the field verification survey and results of the comparison with the Construction Contract Drawings. All discrepancies shall be resolved by the Engineer prior to initiation of construction activities affected by discrepancies.
- D. Survey data in support of quantity measurements as required in Section XII – Measurement for Payment
- E. Survey data and measurements as the Work progresses for the project in support of establishing As-Built Drawings and Record Drawings as specified in Section 01700 Project Closeout Procedures.

1.04 FIELD ENGINEERING AND SURVEY REQUIREMENTS

- A. Provide field engineering and survey services using appropriate construction practices. Use skilled persons, trained and experienced in the necessary tasks and techniques for the proper execution of the Work. Locate and layout the Work by survey instrumentation and similar appropriate means.
- B. The Contractor shall sufficiently establish the existing ground elevations before earthwork is started.
- C. The Contractor shall perform the layout and shall document completed construction on As-Built Drawings, including the features listed in Sub-Part 1.01D.
- D. The Contractor shall sufficiently survey to verify quantities included in requests for payment as required in Section XII, Measurement for Payment.

- E. Vertical and horizontal control shall be of sufficient accuracy and precision to assure survey work is constructed and recorded to within 0.1 foot tolerance.
- F. Verification surveys, surveys for measurement and payment, and project As-Built documentation shall be provided in electronic file format compatible with AutoCAD 2008 or later and Adobe Acrobat 9.0 or later.

1.05 AMERICAN LAND TITLE ASSOCIATION (ALTA)/ AMERICAN CONGRESS ON SURVEYING AND MAPPING (ACSM) SURVEY

- A. An ALTA/ACSM Survey shall be completed by a licensed New York surveyor after the Engineer/Department grants substantial completion status to the project.
- B. The ALTA/ACSM Survey is separate from verification or as-built surveys.
- C. The survey must meet the following minimum requirements:
 - 1. The survey must bear the name, address, telephone number, signature and certification of the professional land surveyor who performed the survey, his or her official seal and registration number, the date the survey was completed, the dates of all of the surveyor's revisions.
 - 2. The survey must be certified to the People of the State of New York acting through its Commissioner of the Department of Environmental Conservation and to the Title Company.
 - 3. The survey boundaries must be drawn to a convenient scale, with that scale clearly indicated. A graphic scale, shown in feet and meters, must be included.
 - 4. The symbols and abbreviations that are used on the survey must be identified by the use of a legend.
 - 5. Diagrams must be accurately presented.
 - 6. The point of beginning of the legal description must be shown.
 - 7. The legal description must be correct.
 - 8. The legal description must state the acreage.
 - 9. If the deed(s) description differ from the measured bearings/angles/distances, both must be indicated on the survey.
 - 10. The survey must show the identifying titles of all recorded/filed maps and deeds with their appropriate recording data, filing dates and map numbers.
 - 11. The survey must show the section, block and lot/ tax map/ section numbers/letters of the surveyed premises.
 - 12. The survey must show the location of all buildings/monuments/overlaps/encroachments upon the surveyed property with their locations defined by measurement perpendicular to the nearest perimeter boundaries.

13. The survey must show all observable evidence of easements and or servitudes and underground easements and or servitudes with their recording information (such as those created by roads, right-of-way, water courses, drains, telephone, telegraph, or electric lines, water sewer, gas cable lines or oil or gas pipelines, on or across the surveyed property and on adjoining properties if they appear to affect the surveyed property) or any easements of record which may, based upon their location or use, impair or otherwise limit proposed development.
14. The survey must note any "blanket floating" or otherwise undefined or unlocated easements.
15. The survey must depict the location of visible improvements within five feet of each side of property boundary lines.
16. The survey must provide a path of legal access for ingress and egress to and from the site for the Grantee, its agents, employees or other representative of the State to use to access the Site.
17. The survey must show ponds, lakes, springs, rivers or a natural water boundary bordering on or running through the surveyed property; the survey must measure the location of the natural water boundary and note on the survey the date of the measurement.
18. The survey must correctly depict the area(s) of wetlands; restricted use zones.
19. The survey must correctly depict the environmental easement area with corresponding metes & bounds description and acreage.
20. The survey should clearly state "Environmental Easement Description" with the DEC site number next to it.
21. If the survey consists of more than one sheet, sheets must be numbered and the total number of sheets must be indicated on each sheet.
22. The survey must depict the area affected by engineering controls with corresponding metes and bounds with acreage, measurements with description of the engineering control for example OU 1, OU 2 or Soil Management Plan Area, Sub-Slab Methane/VOC system, site cap, clean fill, concrete, demarcation layer, area not under environmental control, asphalt or building structures, footprint of future buildings (where known), etc.
23. If the site will be subject to engineering and/or institutional controls, the survey must include the following statement: "The engineering and institutional controls for this Easement are set forth in the Site Management Plan (SMP). A copy of the SMP must be obtained by any party with an interest in the property. The SMP can be obtained from NYS department of Environmental Conservation, Division of Environmental Remediation, Site Control Section, 625 Broadway, Albany, New York, 12233 or at derweb@gw.dec.state.ny.us". This reference must be located in a prominent place on the face of the survey and be in at least 15-point type.
24. The record title description of the surveyed tract and any new description prepared by the surveyor must appear on the face of the survey.

1.06 TECHNICAL REQUIREMENTS OF SURVEY

- A. Horizontal ground control shall originate and terminate on New York State Plane North American Datum 1983 (NAD 83). Vertical control shall be tied to North American Vertical Datum 1988 (NAVD 88).
- B. Map Accuracy - Ninety percent of the elevations determined from the solid-line contours for the topographic maps shall have accuracy with respect to true elevation of 0.5 contour interval (0.5 foot) or better, and the remaining 10 percent of such elevations shall not be in error by more than one contour interval (1 foot).
- C. Vertical Control: Establish a permanent project benchmark for vertical control.
- D. Horizontal Control: Each horizontal control point shall be plotted on the map within the coordinate grid in which it should lie to an accuracy of one one-hundred th foot (0.01 foot) of its true position as expressed by the plane coordinates computed for this point.
- E. Spot Elevations: Survey shall be constructed to provide an accuracy of 0.1 feet vertically. No shots exceeding 500 feet shall be taken. Ninety percent of all spot elevations placed on the maps shall have an accuracy of at least 0.1 foot, and the remaining 10 percent shall not be in error by more than one-half (1/2) of the contour interval (0.5 foot).
- F. Accuracies and accuracy tests apply to the stereo compilation scale of the original manuscript (i.e., if the manuscript is compiled at a scale of 1" = 100' and then reduced to 1"=200', then the accuracies will apply to the original 1"=100' scale). This is also true if the manuscript is enlarged to 1"=50' or some larger scale.

1.07 EXISTING CONDITIONS SURVEY

- A. The existing conditions depicted on the Construction Contract Drawings are based on a survey, prepared for the New York State D.E.C., Willowbrook Pond Closure Site, City of Dunkirk, County of Chautauqua, State of New York," by Razak Associates and Shaw Environmental, dated August 11, 2011.

1.08 CONSTRUCTION CONTRACT DRAWINGS

- A. The Engineer will supply the Contractor with electronic drawing files in AutoCAD 2010 file format. These electronic files may be used by the Contractor for calculating construction layout and as a base map for As-Built survey.

PART 2 - PRODUCTS

Not applicable.

PART 3 - EXECUTION

Not applicable.

END OF SECTION

SECTION 01700

CLOSEOUT PROCEDURES

PART 1 GENERAL

1.01 RELATED SECTIONS

- A. Section 01300 – Submittals
- B. Section VIII – General Conditions

1.02 FINAL CLEANING

- A. Perform final cleaning prior to joint inspection for physical completion. Leave the premises in a neat, unobstructed condition and everything in perfect repair and adjustment.
- B. Clean site; sweep paved areas, rake clean landscaped surfaces.
- C. Remove tools, equipment, waste and surplus materials, rubbish, and construction facilities from the premises as soon as possible upon completion of the Work.

1.03 PROJECT RECORD DOCUMENTS

- A. Maintain on site, 2 sets of the following record documents; record actual revisions to the Work:
 - 1. Contract Drawings.
 - 2. Project Specifications
 - 3. Addenda.
 - 4. Change Orders and other modifications to the Contract.
 - 5. Reviewed shop drawings, product data, and samples.
- B. Store record documents separate from documents used for construction.
- C. Record information concurrent with construction progress.
- D. Record Documents and Shop Drawings: Legibly mark each item to record actual construction including:
 - 1. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 - 2. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.

3. Field changes of dimension and detail.
 4. Details not on original Contract Drawings.
- E. Maintain, at the site, 2 sets of the of the Contract Drawings and approved project submittals.
- F. Upon completion of the work, complete electronic versions of the project record documents. Documents are to be submitted to Engineer for review.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

END OF SECTION

SECTION 01800

AIR MONITORING PROGRAM

PART 1 - GENERAL

1.01 DESCRIPTION

A. Work Specified:

1. The air monitoring program shall be in accordance with Section X Standard Specifications, Spec 00003 Minimum Requirements for Health, Division of Environmental Remediation (DER) – 10/Technical Guidance for Site Investigation and Remediation and Safety and conducted throughout the performance of construction activities associated with remedial action implementation.

1.02 RELATED SECTIONS

1. Section X – Standard Specification Spec 00003
2. Section 02230 – Earthwork

1.03 DEFINITIONS

1. Breathing Zone is defined as the worker breathing zone for worker health and safety.
2. Perimeter of the Site is defined as the outer limits of the area impacted by construction activities including exclusion, contamination reduction, and support zones. General Limits of the Site Perimeter are defined on the Contract Drawings as the Limits of Construction.
3. Work Zone is generally defined as the area where intrusive construction activities take place.

1.04 APPLICABLE CODES, STANDARDS, AND SPECIFICATIONS

- A. New York State Department of Health (NYSDOH) Generic Community Air Monitoring Program (GCAMP)
- B. Division of Environmental Remediation (DER) – 10/Technical Guidance for Site Investigation and Remediation.
- C. All federal, state, and local air monitoring requirements.

PART 2 – PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01900

GREEN REMEDIATION PRACTICES

PART 1 - GENERAL

1.01 SUMMARY

- A. Work includes, to the extent practicable, special environmental "Green" remediation practices related to reducing waste generation; energy usage; emissions including greenhouse gases (GHGs), nitrogen oxides (NOx), sulfur oxides (SOx), particulate matter and hazardous air pollutants (HAPs); water usage; and land and ecosystem disturbance.
- B. The **CONTRACTOR** shall implement green remediation practices in the performance of the requirements of the Work to maximize to the extent practicable, sustainability, reduce energy and water usage, promote carbon neutrality, promote industrial materials reuse and recycling, and protect and preserve land resources.
- C. The **CONTRACTOR** shall utilize concepts and techniques presented in the New York State Department of Environmental Conservation – (NYSDEC) Program Policy DER-31/Green Remediation, August 11, 2010.
- D. The **CONTRACTOR** shall implement, to the extent practicable, practices and procedures to meet the environmental performance goals of the **DEPARTMENT** consistent with NYSDEC Program Policy DER-31/Green Remediation. In general, such practices and procedures shall include, but are not limited to:
 - 1. Reducing direct and indirect Green House Gas (GHG) and other emissions;
 - 2. Increasing energy efficiency and minimizing use of non-renewable energy;
 - 3. Conserving and efficiently managing natural resources such as soil, water and habitat;
 - 4. Reducing waste, increasing recycling and increasing reuse of materials;
 - 5. Maximizing the reuse of land and the recycling of on-site materials; and
 - 6. Applying green remediation concepts, such as foregoing energy consuming operations.

- E. Specifically, **CONTRACTOR** shall consider inclusion of the following provisions:
1. Beneficially reuse materials that would otherwise be considered a waste (e.g., crushed clean concrete as base or fill).
 2. Use of renewable energy and/or the purchase of renewable energy credits (RECs) or a combination of the two techniques to offset electricity demand at the site.
 3. Reduce vehicle idling. All vehicles, both on and off road (including construction equipment) shall be shut off when not in use for more than 5 minutes, consistent with 6 NYCRR Part 217 Motor Vehicle Emissions, Subpart 217-3 Idling Prohibition For Heavy Duty Vehicles.
 4. Cover soil, as approved by the **DEPARTMENT**, rather than spraying with water.
 5. Establish minimally invasive and well-designed traffic patterns for on-site activities to reduce impacts to land and ecosystems.
- F. **CONTRACTOR** shall be aware of the **DEPARTMENT'S** policy to utilize, as approved by the **DEPARTMENT**, recycled content materials, locally manufactured materials and low-emitting materials.
- G. **CONTRACTOR** shall ensure, to the extent practicable, that the requirements related to the goals of the **DEPARTMENT** and as defined in the Contract Documents, are implemented to the fullest extent.

1.02 DEFINITIONS:

A. Green Remediation Definitions

1. Renewable energy sources include solar, wind, geothermal, biomass and biogas.
2. Locally manufactured shall mean manufactured within 150 miles of the work.
3. Recovered materials shall be waste materials and by-products that have been recovered from solid waste, but does not include materials and by-products generated from, and commonly reused within, an original manufacturing process.

1.03 ENVIRONMENTAL GOALS

- A. The **CONTRACTOR**, to the extent practicable, shall:
1. Minimize the amount of waste generated from the site and maximize the use of recycling/reuse facilities for disposal of the waste to the extent practicable and as approved by the **DEPARTMENT**.
 2. Maximize use energy derived from a renewable source.
 3. Minimize on and off-site fuel combustion.
 4. Minimize use of water.
 5. Minimize disturbance to land and ecosystems.

1.04 SUBMITTALS

- A. Form "A" - Summary of Green Remediation Metrics:
1. Consistent with NYSDEC Program Policy DER-31/Green Remediation requirements specified in Section 1.1B and Green Remediation Metrics requirements specified in Section 1.2.C of the applicable specifications, the **CONTRACTOR** shall complete *Form A - Summary of Green Remediation Metrics*, in its entirety and sign the certification as to its accuracy.
 2. The **CONTRACTOR** shall submit properly completed Form A to the **DEPARTMENT** along with the **CONTRACTOR'S** Application for Payment.

1.05 QUALITY ASSURANCE

- A. Environmental Project Management and Coordination:
1. **CONTRACTOR** shall designate an employee who shall be responsible for implementation of green remediation elements, coordinate work of subcontractors and suppliers; instruct workers relating to environmental issues; ensure that green remediation metrics are collected, recorded on *Form A - Summary of Green Remediation Metrics* and submitted with the **CONTRACTOR'S** Application for Payment, and oversee Project environmental goals.

PART 2 – PRODUCTS

- A. **CONTRACTOR** shall use environmentally preferable products, where appropriate and as approved by the **DEPARTMENT**, including, but not limited to:
1. Compact Fluorescent Lights (CFL) or LED
 2. Environmentally friendly electronics (e.g., ENERGY STAR)
 3. Items composed of recovered materials

PART 3- EXECUTION

- A. The **CONTRACTOR** shall, to the extent practicable:
1. Set up on- site recycling program for **CONTRACTOR** generated wastes.
 2. Minimize equipment engine idling.
 3. Utilize properly sized equipment.
 4. Minimize emissions during site work (i.e., replace or retrofit older engines or use newer efficient models).
 5. Practice engine maintenance in accordance with manufacturers' standards and properly train operators to run equipment efficiently.
 6. Sequence work to minimize double-handling of materials.
 7. Provide locally made materials that are composed of recovered materials to the maximum amount practicable.
 8. Provide materials that generate least amount of pollution during mining, manufacturing, transport, installation, use and disposal.
 9. Maintain office trailer heating and cooling systems at efficient set points.
 10. Avoid materials that contain ozone-depleting chemicals (e.g., CFCs or HCFCs) and that emit potentially harmful volatile organic compounds (VOCs).
 11. Employ construction practices that minimize the generation of excessive dust and combustion by-products.
 12. Minimize use of scarce, irreplaceable and endangered resources.

13. Contain and reuse water on-site, to the extent practicable, as approved by the **DEPARTMENT**.
14. Reduce impact to land and ecosystems, to the extent practicable.

END OF SECTION



Form A Summary of Green Remediation Metrics

Site Name: _____ Site Code: _____ Operable Unit: _____
Address: _____ City: _____
State: _____ Zip: _____ County: _____

Reporting Period

Contract Period From: _____ To: _____
Reporting Period From: _____ To: _____ Is this a Final Report? Yes ☐ No ☐

Contact Information

Preparer's Name: _____ Phone No.: _____
Preparer's Affiliation: _____ Company Code: _____

Waste Generation: Quantify the management of waste generated on-site.

	Current Reporting Period (Tons)	Total to Date (Tons)
Total waste generated on-site		
• Remedy generated waste		
• Contractor generated waste		
Of that total amount, provide quantity:		
• Transported off-site to landfills		
• Transported off-site to other disposal facilities		
• Transported off-site for recycling/reuse		
• Reused on-site		

Provide a description of any implemented waste reduction programs appropriate for this project in the space provided on Page 3.

Energy Usage: Quantify the amount of energy used on-site and portion of that voluntarily derived from renewable energy sources.

	Current Reporting Period (KWh)	Total to Date (KWh)
Total electricity usage		
Of that total amount, provide quantity:		
• Derived from renewable source (i.e. solar, wind)		

Provide a description in the space provided on Page 3 of all reported energy usage reduction programs appropriate to this project, including usage of electricity derived from renewable sources.

Emissions: Quantify the distance traveled for delivery of supplies and removal of waste.

	Current Reporting Period (Miles)	Total to Date (Miles)
Off-site mobile fuel combustion		

Provide a description in the space provided on Page 3 of practices such as use of local vendors within 150 miles of the site and on-site stationary fuel usage reduction programs.

Quantify the number of hours that diesel and other equipment with the potential to emit hazardous air pollutants (HAPs) or greenhouse gas (GHG) emissions was operated on-site.

	Current Reporting Period (Hours)	Total to Date (Hours)
On-site diesel excavation/construction equipment usage		
Other on-site processes potentially generating emissions		

Provide a description in the space provided on Page 3 of the type of excavation/construction equipment used, rating, emission control devices used and other means to reduce emissions, such as use of biodiesel. Also, include a description of other onsite processes that may result in emissions of HAPs or GHG emissions and any emission control devices that are utilized to reduce emissions.

Water Usage: Quantify the volume of water used on-site from difference sources

	Current Reporting Period (Gallons)	Total to Date (Gallons)
Total quantity of water used on-site		
Of that total amount, provide the quantity obtained from:		
• Public potable water supply usage		
• Surface water usage		
• On-site groundwater usage		
• Reclaimed water usage		
• Collected or diverted storm water usage		

Provide a description in the space provided on Page 3 of any reported water usage reduction programs appropriate for this project.

Land and Ecosystem: Provide a description of the amount of land and/or ecosystems disturbed construction and the area of land and/or ecosystems restored to a natural condition.

	Current Reporting Period (Acres)	Total to Date (Acres)
Land Disturbed		
Land Restored		

Provide a description of the amount of land and/or ecosystems remediated.

	Current Reporting Period (Acres)	Total to Date (Acres)
Total area of land impacted by contamination		
Of the total acres provide the:		
Area of Land Remediated		

Other: *Provide a description in the space provided on page 3 of any other green remediation practices performed during the project.*

Description of green remediation programs reported above (Attach additional sheet if needed) Waste Generation:
Energy Usage:
Emissions:
Water Usage:
Land and Ecosystem:
Other:

CERTIFICATION BY CONTRACTOR	
<p>I, _____ (Name) do hereby certify that I am _____ (Title) of the Company/Corporation herein referenced and contractor for the work described in the foregoing application for payment. According to my knowledge and belief, all items and amounts shown on the face of this application for payment are correct, all work has been performed and/or materials supplied, the foregoing is a true and correct statement of the contract account up to and including the last day of the period covered by this application.</p>	
<p>_____</p> <p>Date</p>	<p>_____</p> <p>Contractor</p>

SECTION 02080

ASBESTOS REMOVAL

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes: Removing and disposing of friable and non-friable asbestos-containing materials (ACM) in conjunction with other work on the site.
- B. Includes all payment of notification, inspection fees, and new variance requests required by the applicable agencies.
- C. The results of an asbestos survey, recently performed at the structure located near the Southwest corner of the pond (FR Building) by the Department, are included in the Limited Site Data. This information is to be used by the Contractor to develop plans.

1.02 REFERENCES

- A. Code of Federal Regulations:
 - 40 CFR 61 Subpart M National Emission Standards for Hazardous Air Pollutants (NESHAP)
 - 29 CFR 1926 OSHA Construction Standards for Asbestos
 - 49 CFR DOT Regulations
- B. New York State Code of Rules and Regulations (NYCRR)
- C. New York State Department of Labor Industrial Code Rule 56 (ICR56)

1.03 SUBMITTALS

- A. Correspondence: A copy of correspondence with the EPA Regional Administrator or other EPA Office shall be furnished to the Engineer within 10 days of mailing or receipt or correspondence.
- B. Abatement Plan: Submit 3 copies of the removal plan to the Engineer 30 working days prior to commencing work. Provide a detailed plan of the response actions to be taken and the control procedures to be used in the abatement of ACM. The plan shall include:
 - 1. Abatement methods on the major components of abatement work (i.e., ACM contaminated soil, bagged material at FR Building shown on the Contract Drawings.);
 - 2. Level of supervision;
 - 3. Personal equipment to be used;

4. Location of asbestos-regulated work areas;
5. Sequencing of asbestos related work;
6. Interface of trades involved in the remediation;
7. Methods of notification of other employers at the work site;
8. Storage, transportation, and disposal procedures plan;
9. Planned air monitoring strategies in accordance with ICR56;
10. Contingency methods to be employed in order to control the spread of ACM wastes and airborne fiber concentrations;
11. Fire and medical emergency response procedures;
12. Specific security procedures to be used for all asbestos-regulated work areas;
13. Contingency methods for asbestos materials containing amosite;
14. Applicable variances to be used by ICR56; and
15. Copy of calculated fees to be paid to NYSDOL.

C. Site Layout or Drawings

1. Provide descriptions, detailed abatement drawings, site layout to include work area containment and demarcation, air monitoring locations, decontamination and load out units, other temporary waste storage facilities location of temporary utilities, ad boundaries of each asbestos-regulated work area at each location or facility of work.

D. Materials and Equipment

1. Provide manufacturer's data for all materials and equipment to be used in the work, including name, model, capacity, performance characteristics, and other pertinent information. Provide Material Safety Data Sheets for all chemicals to be used on site.

E. Qualifications

1. Provide a written qualification and organization report providing evidence of qualification of all individuals (or changes in staff) who will perform work (respiratory protection and medial acceptance) herein. Qualifications shall be submitted for Contractor, Contractor authorized personnel, all subcontractors (to include waste haulers and disposal firms), independent industrial hygiene firm,

independent testing laboratory, and analysts. Contractor and personnel must be currently certified and licensed by the State of New York for asbestos removal. The qualification submittal shall contain at a minimum the following information:

- a. Project organization and on-site supervisor and staff qualifications;
- b. Designated industrial hygiene or air monitoring firm qualifications;
- c. independent testing laboratory qualifications;
- d. Transporter qualifications;
- e. Landfill information including permit, name, location, and contact person.

F. Reports: Provide one copy of the following reports during the progress of the project.

1. Air sampling reports. Background, pre-abatement, during abatement, and post-abatement or clearance reports.

- a. Personal air monitoring reports.
- b. Asbestos waste disposal record report.

2. Air Monitoring Results

- a. Air sample fiber counting shall be completed and results provided within 24 hours after completion of the sampling period.
- b. Engineer shall be notified immediately of any airborne levels of asbestos fibers in excess of established requirements.
- c. Written results shall be provided within five working days of the date of collection
- d. Contractor's daily air monitoring log shall contain the following information for each sample:
 - i. Date sample collected;
 - ii. Date sample analyzed;
 - iii. Sample number;
 - iv. Location/activity/name where sample collected;
 - v. Sample type;
 - vi. Sample period;
 - vii. Sample pump manufacturer;
 - viii. Pump calibration information;
 - ix. Total air volume sampled; and

x. Sample results.

G. Notifications and Variance Requests

1. Submit proof of notifications and variance request approvals of the required regulatory agencies no later than 20 days prior to the start of any asbestos work.

H. Records

1. Provide final completed copies of all asbestos waste shipment records and certificates of disposal. Completed forms, signed and dated by the agency of the landfill, shall be submitted to the Engineer within five days of delivery and disposal of the ACM to the landfill.

1.04 SEQUENCING AND SCHEDULING

Coordination: Contractor shall coordinate the activity on the site and at each location or facility of work to ensure proper control and handling of asbestos-containing or contaminated material.

1.05 PRESUMES ASBESTOS-CONTAINING MATERIAL

- A. As included in the Limited Site Data Report, four dust samples from bags present in FR Building were collected for asbestos analysis during the Site Investigation. One analysis returned positive for Chrysotile (the results of an asbestos survey, recently performed in the area of FR Building by the Department, are also included in the Limited Site Data). Therefore, during excavation in this area, the Contractor should be aware that the potential for contact with asbestos exists, and appropriate measures may need to be incorporated for handling such materials. Also, soil and waste disposal options will need to consider the potential for asbestos.

1.06 Previous Survey Analysis

- A. A summary and information from previous asbestos analyses is located in the Limited Site Data Report.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

3.01 Preparation

- A. A NYSDEC Notification: The contracting Officer shall be notified five working days prior to commencing the actual abatement work and upon completion of the work.

- B. EPA Notification: Contractor shall, at least 10 working days prior to the commencement of abatement work, submit a written notice of intent to demolish asbestos materials to the EPA Regional Office according to 40 CFR 61.145.
- C. New York State Department of Labor (NYSDOL): Submit notification at least 10 working days prior to removal activity.
- D. Worker Safety: Within the scope of the above references, the following minimum specific requirements to insure worker safety shall be implemented:
 - 1. Control Dispersal of asbestos before and during removal;
 - 2. Provide respirators and clothing appropriate for asbestos work;
 - 3. Ensure that asbestos contaminated clothing is not work off the worksite.
- E. Contractor shall post a copy of NYSDOL Decision No. 602-95 at the entrance to the personnel decontamination area, and shall abide by it. Note that this decision permits the same contractor to perform asbestos abatement and demolition.

3.02 ASBESTOS TRANSPORTATION AND DISPOSAL

- A. Asbestos waste materials shall be transported to an appropriate, permitted landfill in accordance with the requirements contained in 6 NYCRR Part 364.
- B. Asbestos waste materials shall be disposed of according to 40 CFR 61.150 and State of New York requirements such as those contained in 6 NYCRR Part 360.

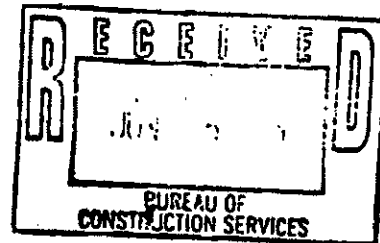
3.03 CLEANUP

- A. Requirements: Contractor shall accomplish cleanup of asbestos-containing materials continuously throughout the course of this work, as necessary.

END OF SECTION



STATE OF NEW YORK
DEPARTMENT OF LABOR
DIVISION OF SAFETY AND HEALTH
Engineering Services Unit
State Office Building Campus
Albany, N.Y. 12240



Re: File No. 602-95
NYS Dept. of Environmental Conservation
Div. of Hazardous Waste Remediation
50 Wolf Road
Albany, NY 12233-7010

STATE OF NEW YORK
DEPARTMENT OF LABOR
DIVISION OF SAFETY AND HEALTH)

The attached is a copy of a Decision dated June 1, 1995 which I have compared with the original filed in this office and which I DO HEREBY CERTIFY to be a correct transcript of the text of the said original.

If you are aggrieved by this decision you may appeal within 60 days from its issuance to the Industrial Board of Appeals as provided by Section 101 of the Labor Law. Your appeal should be addressed to the Industrial Board of Appeals, 194 Washington Avenue, Albany, New York 12210, as prescribed by its Rules of Procedure, a copy of which may be obtained upon request.

WITNESS my hand and the seal of the
Department of Labor, at the City of
Albany, this first day
of June One thousand
nine hundred and ninety-five.

Daniel G. Sullivan, P.E.
Principal Safety and Health
Engineer

NOTE: It is important that a copy of this Decision (if a variance is granted) be preserved at all times for public inspection for the reason that the violation upon which the petition for variance is based is, through this Decision, removed and the petitioner is thereby deemed to be in full compliance with the Law, thus avoiding the penalties prescribed by Section 213 of the Labor Law.

STATE OF NEW YORK
DEPARTMENT OF LABOR
STATE OFFICE BUILDING CAMPUS
ALBANY, NEW YORK 12240-0100

-----X

Variance Petition	:	File No. 602-95
of	:	DECISION
New York State Department of Environmental Conservation	:	Case 1
Petitioner	:	ICR 56
in re	:	
Premises: Various Inactive Hazardous Waste Sites STATEWIDE	:	

-----X

The Petitioner, pursuant to Section 30 of the Labor Law, having filed Petition No. 602-95 on May 25, 1995 with the Commissioner of Labor for a variance from the provisions of Industrial Code Rules 56-1.9(e) on the grounds that there are practical difficulties or unnecessary hardship in carrying out the provisions of said Rules; and the Commissioner of Labor having reviewed the submission of the Petitioner's agent dated May 16, 1995; and

Upon considering the merits of the alleged practical difficulties or unnecessary hardship and upon the record herein, the Commissioner of Labor finds that:

Case No. 1

ICR 56-1.9(e)

VARIANCE GRANTED. The Petitioner's proposal to bid concurrently the asbestos removal and demolition work on a subject site or facility with asbestos removal work done only by a licensed asbestos (sub)contractor, is accepted; subject to the requirement that the work shall be carried out in accordance with the Petitioner's one-page proposal and Industrial Code Rule 56 with each remedial site treated as a separate asbestos project(s), and in compliance with the following conditions:

THE CONDITIONS

1. If needed, a site specific variance will be submitted for the site or building (as applicable) to be demolished. Each discrete building (if separate foundation) requires a separate variance unless the entire complex can be considered as one unit.
2. A survey of asbestos in the building complex or individual buildings shall be made in accordance with Subpart 56-1.9(b&c) of this Code Rule.
3. All asbestos materials shall be removed from the building(s) prior to demolitions.

In addition to the conditions required by the above specific variance, the Petitioner shall also comply with the following general conditions:

GENERAL CONDITIONS

1. A copy of this DECISION shall be conspicuously displayed at the entrance to the personal decontamination enclosure.
2. This DECISION shall apply only to the asbestos abatement projects as described for the above site.
4. The Petitioner shall comply with all other applicable provisions of Industrial Code Rule 56-1 through 56-17.
5. This DECISION shall terminate upon the completion of remediation/demolition activities at the specific described site/facility.

DATED: JUNE 1, 1995

JOHN E. SWEENEY
COMMISSIONER OF LABOR

BY


CARL J. THURNAU, ASSISTANT DIRECTOR
DIVISION OF SAFETY AND HEALTH

JFM

SECTION 02110

CLEARING AND GRUBBING

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

- A. This section includes the requirements for clearing and grubbing.

1.02 RELATED SECTIONS

- A. Section 01560 – Erosion and Surface Water Control
- B. Section 02230 – Earthwork

1.03 REQUIREMENTS

- A. Open Fires: Not permitted unless otherwise approved by the Owner and comply with the rules and regulations of the Department of Environmental Conservation Title 6, Chapter III Air Resources, Part 215. A permit is required before any burning is allowed.
- B. Cleared and grubbed material will be disposed of onsite as indicated on the Contract Drawings or as directed by the Engineer during operations.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Tree Pruning Compound: Waterproof, antiseptic, elastic and free of kerosene, coal tar, creosote, and other substances harmful to plants.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Protection:
 - 1. Prevent damage to buildings, pavement, pipes, conduits, poles and other structures above and below ground that are adjoining or included in the contract area. Repair damage resulting from the Contractor's negligence.
 - 2. Protect existing trees and shrubs not to be removed. Cut back to point of branching all broken branches and skinned areas. Treat exposed wood with tree pruning compound.

3. Store materials and equipment in cleared areas away from tree roots. Prevent employees and equipment from trampling over woodland, existing planting, and established lawns.
4. Keep public roads and walks free of dirt and debris at all times.
5. Notify the Engineer immediately of damage to or an encounter with an unknown existing utility line. Repair damage to existing utility lines at no additional cost to the Department.
6. Notify the Engineer prior to interruption of utility services and be responsible for minimizing the time period of such interruption.
7. Protect those features, trees and vegetation to remain which have been designated by the Engineer. If damaged or destroyed, repair or replace in kind at Contractor's expense.

3.02 CLEARING

- A. Remove all living or dead tree and shrub growth where indicated on the Contract Drawings, specified or directed.
- B. Top and limb all trees before felling, unless otherwise approved by the Engineer.
- C. Cut all stumps as close to flush with ground surface as feasible.
- D. Chip out stumps to a depth of not less than 6 inches below finished grade. Backfill stump holes with topsoil.
- E. Conduct the clearing in a manner that prevents, to the extent possible, soil or soil like material from being collected with the cleared material.
- F. Clearing operations shall be conducted in a manner to prevent falling trees from damaging trees designated to remain or other existing features.

3.03 GRUBBING

- A. Grubbing shall only be performed in areas designated by the Engineer and as depicted on the Contract Drawings.
- B. Fill/waste areas as shown on Contract Drawings shall not be grubbed. Stumps, roots and other subsurface vegetation in contaminated areas (hazardous and nonhazardous) shall be excavated and handled in the same manner as the contaminated fill/wastes.

3.04 PRUNING

- A. Prune trees where indicated or directed of undesirable wood with the resulting crown shaped to the natural habit of the tree. Remove all diseased and dead branches, and branches interfering with construction activities. Scar trace bark

wounds as directed. All cuts shall be cleanly made with sharp tools, flush with the parent trunk or limb. Paint cuts over 3 inches in diameter with tree pruning compound.

3.05 DISPOSAL OF CLEARED AND GRUBBED MATERIALS

- A. Chip and stockpile on site in an uncontaminated area as directed by Engineer or Department all tree trunks, limbs, brush, foliage and other vegetation free of soils and soil like materials. Protect chipped material as directed by Engineer. Spread chipped materials as directed by the Engineer or Department. Dumping of spoil material into any stream corridor, wetland, flood plain or surface water is prohibited.
- B. Consolidate rubbish/debris encountered during clearing and grubbing and dispose off-site, as directed by Engineer.
- C. Stumps, tree trunks and limbs greater than 18 inches shall be split, chipped, and stockpiled in a location on-site as directed by Engineer.

END OF SECTION

SECTION 02140

DEWATERING

1. PART 1 - GENERAL

1.01 SCOPE OF WORK

- A. The Contractor shall furnish all labor, tools, materials, equipment, and incidentals necessary for the proper dewatering and treatment of water of work areas during excavation and backfill, and all related work as specified herein and as shown on Contract Drawings. Contractor shall ensure dewatering system is capable of operation during the winter months and below freezing temperatures.

1.02 DESCRIPTION OF WORK

- A. The work involved with excavation dewatering shall include, but is not necessarily limited to, the following:
 - 1. Dewatering as needed until excavation activities are completed and approved by Engineer.
 - 2. Proper storage, treatment, and discharge or disposal of water removed.
 - 3. Proper dewatering as needed of materials to be disposed off-site.
- B. The actual dewatering methods shall be chosen by the Contractor; however, the Engineer must approve any method before dewatering begins.

1.03 RELATED SECTIONS

- A. Section 01400: Quality Requirements
- B. Section 01500: Temporary Facilities and Controls
- C. Section 02230: Earthwork
- D. Section 15111: Valves
- E. Section 15132: Pumps and Accessories
- F. Section 15133: Pipes and Fittings
- G. Section 16001: Electrical Work

1.04 SUBMITTALS

- A. Dewatering plan with (as part of) the work plan.

- B. Shop drawings of dewatering details (i.e., well points, pump system, drain construction, contaminant tanks and other equipment necessary to complete the work).
- C. Treatment System Design. Plans for start-up and performance testing of the treatment system shall be submitted to the Engineer at least two weeks prior to commencement of start-up operations.
- D. Treatment System Demonstration Test Report including analytical results. During the start-up and testing, the Contractor shall make and submit daily log reports. A copy of the log shall be submitted to the Engineer each day. Upon completion, the reports shall be submitted in booklet form showing all field tests to adjust each component and all field tests performed to prove compliance with the specified performance criteria. Daily entries shall include process control procedures, equipment maintenance logs, general observations, and all monitoring activities. These monitoring activities shall include schedule process control monitoring, and performance-verification testing.
- E. Certification by equipment suppliers of proper installation before start-up testing.

2. PART 2 - PRODUCTS

2.01 DEWATERING PLAN

- A. This plan shall include a 1-inch = 50-foot scaled site map locating proposed operations, list of required equipment and materials, contingency plans and actions, description of system operations addressing relation to excavating, backfilling, consolidation, collection, transport, storage and disposal operations. This plan shall include:
 - 1. Dewatering methods;
 - 2. Liquid handling methods;
 - 3. Phasing/scheduling of work;
 - 4. Contingencies;
 - 5. Flow metering equipment;
 - 6. Offsite disposal facility.
- B. The dewatering plan shall anticipate and calculate the need for dewatering systems from Notice to Proceed until Substantial Completion. The calculations shall consider the Storm Water Management Plan's control of run-on and run-off of the work areas. Include assumptions and calculations.
- C. Provide flexibility in the plan to handle variations in conditions that will also minimize the quantities of groundwater and coordinate with applicable Contract Drawings. Dewatering controls shall include components described in the Contract Drawings unless otherwise approved by the Engineer.

2.02 TREATMENT SYSTEM FOR WATER FROM DEWATERED AREAS

- A. System shall provide sufficient capacity to support excavation and backfill operations.
- B. System design shall be capable of removing particulates and contaminants and be based on effluent meeting New York State Water Quality Standards (Appendix A, Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations), SPDES permit standards (Appendix B, Effluent Limitations and Monitoring Requirements) or pre-treatment standards provided by the City of Dunkirk Department of Public Works (Appendix C, City of Dunkirk Chapter 63 - Sewer User Ordinance).
- C. Regardless of the final point of discharge, the effluent from the onsite water treatment system **shall not** contain Polychlorinated Biphenyls (PCBs) at concentrations greater than 0.064 parts per billion (PPB).
- D. Vapor emissions from dewatering treatment system operation will be treated as necessary to meet the State air guidance criteria (Air Guide 1).
- E. Provide temporary on-site storage for dewatering wastes based on Contractor's operations, while accounting for treatment system limitations, variations in volumes and approval of effluent sampling results.
- F. Dewatering treatment system must be operational prior to excavation. Install all equipment in accordance with manufacturer's instructions and as shown in approved shop drawings. Ensure all equipment and materials are compatible as a system.
- G. The treatment system shall be designed to adequately meet the groundwater treatment requirements and expected capacities and shall be sealed by a New York State Professional Engineer. It is anticipated that the treatment system may consist of oil/water separator; settling tanks; particulate filtration system; carbon adsorption; resin vessels, organo-clay vessels, supplemental frac or polyethylene tanks for storage and other components necessary to meet applicable treatment standards.
- H. The groundwater and treatment system shall be designed to adequately operate during winter/freezing condition. Provisions may include but not limited to piping and instrumentation covers/insulation and/or heat tracing.

3. PART 3 - EXECUTION

- A. The Contractor shall select a proposed method of dewatering that complements his plan of excavation.
- B. Prior to beginning soil or sediment removal from the Recycle Water Pond (Willowbrook Pond), the contractor shall dewater the pond by pumping the free-standing water in the pond into the sanitary sewer for treatment at the City of Dunkirk POTW. The water level in the pond will be drawn down to approximately one foot above the existing sediments or until the turbidity in the discharge exceeds 50 NTUs. Once the turbidity exceeds 50

NTUs, the discharge will be redirected for treatment at the onsite water treatment facility prior to discharge from the site. While pumping the free-standing water from the pond, the discharge will be monitored for turbidity at two hour intervals.

- C. Excavation of material and placement of backfill will not be allowed while there is standing water in the excavation.
- D. All dewatering wastes of the project or groundwater shall require treatment for proper off-site disposal.
- E. All waters encountered within the excavation limits of contaminated areas will require treatment or off-site disposal unless otherwise directed by the Engineer.
- F. Dewatering systems must be operational prior to excavation work. Install all equipment in accordance with manufacturer's instructions and as shown in approved shop drawings. Ensure all equipment and materials are compatible as a system.
- G. Control groundwater and run on surface water within an excavation or backfill area by pumping or other methods to prevent softening of surfaces exposed by excavation. System shall be capable of operating 24 hours per day/7 days per week.
- H. Use filters on dewatering devices to prevent removal of fines from soils.

3.01 DEWATERING TREATMENT SYSTEM STARTUP AND DEMONSTRATION

- A. Visually inspect all parts of the dewatering treatment system. Inspect inside of pipes, tanks, and equipment for debris and foreign objects. Correct any deficiencies found.
- B. Perform rotational checks of all equipment with moving parts (unpowered).
- C. Disconnect motor leads. Using control system sensors to the extent practical, activate sensors and test voltages to ensure control system is operating as intended. If sensors cannot be activated without water, use simulators to mimic sensor signals. Perform repairs as necessary.
- D. Using potable water, fill the system and check all components for leaks. Pressure test, at 25 psi above working pressure of the system, all components and piping for a period of two hours. For the equipment designed to operate at lower pressure, isolate them from the rest of the system and pressure test them at appropriate working pressure. After pressure testing, turn the power on while feeding clean water and check for leaks. Repair any leaks found.
- E. Empty clean water from process equipment.
- F. Connect liquid effluent discharge to temporary holding tank(s) to be provided by the Contractor. This storage facility shall have sufficient capacity for at least 8 hours of full capacity operation.

- G. Startup the system and make adjustment to the system as necessary to maintain smooth operation. Once all necessary adjustments are made, run the system continuously for 8 hours. Make sure that all valves open and close properly.
- H. During the startup period, system influent and effluent samples will be collected after 4 hours of continuous operation. The effluent should be temporarily stored in a Contractor provided storage tank.
- I. Air sampling of emission control/treatment elements of the dewatering system is required during the startup and demonstration.
- J. After the samples are collected, shut down the dewatering treatment system until confirmed analytical results are received.
- K. The effluent stored during system tests must meet analytical discharge requirements prior to being discharged.
- L. Parameters for operation and maintenance of the dewatering treatment system shall be established during the startup and demonstration.
- M. The Contractor shall provide all the required labor, project equipment and materials, tools, construction equipment, transportation, and test equipment for start-up and testing of the treatment system. Demonstration that the systems meet the performance requirements stated in these specifications and that the complete functioning unit meets the required performance objectives shall be the responsibility of the Contractor. The Contractor must provide all materials to allow the treatment system to operate effectively. This shall include valves, piping, or other items required to complete the process and utility systems.
- N. The Contractor shall ensure that all treatment units and the associated piping is equipped with sufficient sampling ports to allow sampling to determine their performance. Sampling capability must be included at all pumps.
- O. The Contractor shall provide any equipment or operational modifications required for the system to meet the performance requirements.

3.02 SYSTEM OPERATION AND MAINTENANCE

- A. Operate and maintain dewatering treatment system as long as necessary to complete the work.
- B. Dewatering Treatment Operation Processes:
 - 1. During normal operation, grab samplings shall be collected from the effluent discharge(s) at the frequency specified in the contract documents. Samples will be analyzed for the parameters identified in the contract documents.

2. Flow rates and the cumulative total volume of water treated shall be recorded daily.
3. Meet the specified sampling frequency and laboratory turnaround time.
4. Follow the maintenance procedures specified in the manufacturer's manuals for all equipment.
5. Replenish all spare parts or supplies with the same types and amounts used.

3.03 REPORTING

- A. A detailed startup and demonstration test report shall be submitted to the Department/Engineer for the approval prior to the commencement of source removal.
- B. Biweekly discharge reports shall be provided during the excavation dewatering period. These reports shall include the period covered and all data required at the frequencies required in the Effluent Limitations and Monitoring Requirements. Submit reports within 14 days of the end of the bi-weekly period being monitored.

END OF SECTION

MEMORANDUM

*** NOTICE ***

This document has been developed to provide Department staff with guidance on how to ensure compliance with statutory and regulatory requirements, including case law interpretations, and to provide consistent treatment of similar situations. This document may also be used by the public to gain technical guidance and insight regarding how the department staff may analyze an issue and factors in their consideration of particular facts and circumstances. This guidance document is not a fixed rule under the State Administrative Procedure Act section 102(2)(a)(i). Furthermore, nothing set forth herein prevents staff from varying from this guidance as the specific facts and circumstances may dictate, provided staff's actions comply with applicable statutory and regulatory requirements. This document does not create any enforceable rights for the benefit of any party.

Previous Date: October 22, 1993

Reissued Date: JUNE 1998

TO: Bureau Directors, Regional Water Engineers, Section Chiefs

SUBJECT: Division of Water Technical and Operational Guidance Series (1.1.1)

AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES
AND GROUNDWATER EFFLUENT LIMITATIONS

(Originator - John Zambrano/Scott Stoner)

PURPOSE

The primary purpose of this document is to provide a compilation of ambient water quality guidance values and groundwater effluent limitations for use where there are no standards (in 6 NYCRR 703.5) or regulatory effluent limitations (in 703.6). For the convenience of the reader, the standards in 703.5 and groundwater effluent limitations in 703.6 are included in this document. The values in this document (guidance and regulatory) are used in Department programs, including the SPDES permit program.

DISCUSSION

This document combines and revises the previous editions of TOGS 1.1.1 (ambient values) and 1.1.2 (groundwater effluent limitations). The main reason for the revision is to include revised and added ambient standards and effluent limitations resulting from the amendments to 6 NYCRR Parts 700 - 706, effective March 12, 1998. Ambient guidance values are also added for over 100 substances, largely based on the application of the Principal Organic Contaminant (POC) value to surface waters classified as sources of water supply.

GUIDANCE

This TOGS presents Division of Water ambient water quality standards and guidance values and groundwater effluent limitations. The authority for these values is derived from Article 17 of the Environmental Conservation Law and 6 NYCRR Parts 700-706, Water Quality Regulations.

This TOGS is divided into two Parts. Part I describes and lists ambient standards and guidance values. Part II describes and lists groundwater effluent limitations.

Although the reader may be tempted to turn immediately to the tables containing the ambient or effluent values, the following cautionary note is important: Many substances for which there are standards, guidance values and effluent limitations are not individually listed or identified in the tables, but are included as part of "group" entries such as "Principal Organic Contaminant." A careful reading of the text of Parts I and II is needed to ensure proper use of this document.

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PART I AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

Ambient water quality standards and guidance values for toxic and non-conventional pollutants are presented in Table 1. This Table includes all of the Division's numerical standards and guidance values established as of the date of this document except standards for coliforms and dissolved oxygen. The reader is referred to Part 703 for the excepted numerical standards and for the Department's narrative water quality standards.

Section A of this Part provides an explanation of ambient water quality standards and guidance values in the format of the column headings in Table 1. Section B, relying on the background of Section A, provides a procedure to help determine whether or not there is a standard or guidance value for a particular substance. Included in this section are instructions on determining the applicability of the POC general groundwater standard to specific substances. Section C provides guidance on certain aspects of development, interpretation and use of standards and guidance values.

A. EXPLANATION OF AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

Ambient water quality standards and guidance values are presented in Table 1. Table 1 includes columns for "Substance (CAS No.)," "Water Classes," "Standard," "Guidance Value," "Type" and "Basis Code." This section describes these terms. Standards and guidance values are described first to facilitate understanding.

1. Standard and Guidance Value

Standards and guidance values are ambient water quality values that are set to protect the state's waters. They both are derived according to scientific procedures that are in regulation (6 NYCRR Part 702).

A standard is a value that has been promulgated and placed into regulation. The standards for the surface water and groundwater classes are extracted from Part 703 of Title 6. Surface water and groundwater standards were last revised effective March 12, 1998.

A guidance value may be used where a standard for a substance or group of substances has not been established for a particular water class and type of value (section 702.15). All guidance values as of the date of this document are listed in Table 1 of this TOGS.

Standards and guidance values are the maximum allowable concentration in units of ug/L, unless otherwise indicated. Where standards or guidance values are expressed as a function of hardness, hardness is in units of parts per million (ppm), expressed as calcium carbonate, and the resulting value is in ug/L. Also, in such hardness functions, the term "exp" represents the base e exponential function.

"ND" means a non-detectable concentration by the approved analytical methods referenced in section 700.3.

The "general organic guidance value," described in 702.15, is misunderstood by some. This value does not automatically apply in the absence of a standard or specific guidance value. For this value to be applied to an individual substance, the Department must determine that certain toxicological data requirements have been met. As of the date of this TOGS, the only substances for which the Division has made this determination are listed in Table 1.

2. Substance (CAS No.)

The substance or group of substances (entry) for which a standard or guidance value has been derived is presented in this column in alphabetical order. The Chemical Abstract Service Registry (CAS) Number(s) are given, where applicable, to provide positive identification. Because a substance may be known by names other than the one used in this document, identification of the CAS number can be useful for locating the substance. An index of CAS numbers is provided at the end of the document.

Group entries fit into one of three categories, as described below. For each such entry, a Remark will indicate whether the standard(s) or guidance value(s) apply to the sum of the substances or to each substance individually.

Interpretation of Group Entries

- a. Where the entry consists of two or more specific substances, with or without CAS Numbers (e.g.: Aldrin and Dieldrin), the entry includes only the specific substances listed.
- b. Where the entry is the name of a group of substances, with CAS numbers listed (e.g.: Dichlorotoluenes), the entry includes only those substances for which the CAS Numbers are listed.
- c. Where the entry is the name of a group of substances, without CAS Numbers (e.g.: Principal organic contaminant), the entry includes all substances that belong to the group, unless otherwise noted. The specific substances in the group may not be listed in the entry or the index. A determination of the specific substances encompassed by the standard(s) or guidance value(s), therefore, may be necessary.

The principal organic contaminant (POC) standard for groundwater is the largest and most complex of this third type of group entry. It is a general standard that applies individually to a virtually unlimited number of substances in six chemical classes. Because of the importance of this general groundwater standard, instructions for determining its applicability to specific substances are included in Section C, below.

3. Water Classes and Type

Standards and guidance values are developed for specific classes of fresh and saline surface waters and fresh groundwaters for protection of the best uses assigned to each class. Best uses are described in Part 701. Standards and guidance values are further designated as to "Type." Values for protection of sources of drinking water are designated Health (Water Source) and noted by H(WS). Similarly, values for protection of human consumers of fish are designated as Health (Fish Consumption) and noted by H(FC). Values for protection of aquatic life from chronic effects are designated Aquatic (Chronic) and noted as A(C). Values for protection of aquatic life from acute effects are designated Aquatic (Acute) and noted as A(A). Values for protection of wildlife are designated as Wildlife and noted as W. Values for protection from aesthetic considerations are designated as Aesthetic and noted as E. Designation of the Type of value determines the applicability of section 702.15, which concerns derivation of guidance values.

A summary description of best usage protections, water classes and type of values related to toxic pollutants is presented below. The groupings of Water Classes and Type presented for the summary description are those that frequently appear in Table 1. A complete description of the water classifications is provided in Part 701.

<u>Water Classes</u>	<u>Type</u>	<u>Protection For</u>
A, A-S, AA, AA-S	H(WS)	Source of Drinking Water (surface water)
GA	H(WS)	Source of Drinking Water (groundwater)
A, A-S, AA, AA-S, B, C, D	H(FC)	Human Consumption of Fish (fresh waters)
SA, SB, SC, I, SD	H(FC)	Human Consumption of Fish (saline waters)
A, A-S, AA, AA-S, B, C	A(C)	Fish Propagation (fresh waters)
A, A-S, AA, AA-S, B, C, D	A(A)	Fish Survival (fresh waters)
SA, SB, SC, I	A(C)	Fish Propagation (saline waters)
SA, SB, SC, I, SD	A(A)	Fish Survival (saline waters)
A, A-S, AA, AA-S, B, C, D	W	Wildlife Protection (fresh waters)
SA, SB, SC, I, SD	W	Wildlife Protection (saline waters)
A, A-S, AA, AA-S, B, C, D, GA	E	Aesthetic (fresh waters)
SA, SB, SC, I, SD	E	Aesthetic (saline waters)

For many substances, more than one Type of value will be listed for a specific water class. In these situations, all values apply and may be used to derive the most stringent limitations.

4. Basis Code

The letters in this column designate the specific procedure used to derive the standard or guidance value. The key to the letter designations is provided in Table 2.

B. HOW TO LOCATE AMBIENT STANDARD OR GUIDANCE VALUE

This section contains instructions on how to determine whether the Division has an ambient standard or guidance value for a substance. As described above, many substances with standards or guidance values are included in “group” entries but not individually identified, or are listed by a different name. Therefore, the absence of a specific entry for a substance name does not necessarily mean that there is no standard or guidance value. The procedures below should assist the user, but are not guaranteed. The user may want to contact the Division’s Standards and Special Studies Section before assuming that there is no standard or guidance value for a particular substance.

1. Recommended Procedure for Determining if Standard or Guidance Value Exists

- Step 1. Look up substance by name(s) in Table 1. If found, confirm identity by CAS number, if listed. If substance is not found, go to Step 2.
- Step 2. Using CAS number and the CAS number index, determine the entry name and location of the substance. If CAS number is not in index, go to Step 3.
- Step 3. Entries for metals and some other substances, e.g., nitrate, do not contain CAS numbers. The entry for a metal includes all forms of the metal, metallic and in compounds, unless otherwise specified. The nitrate entry includes all compounds containing nitrate. There is no entry for “sodium nitrate” for instance, but there are entries for sodium and for nitrate. Therefore, look in Table 1 for the components of a metallic or ionic compound. If not found, go to Step 4.
- Step 4. Determine whether the substance is included in any of the groups listed below that has a standard or guidance value listed for the water class(es) of interest. Detailed instructions for determining the applicability of the principal organic contaminant (POC) groundwater standard are provided below.

Alkyl diphenyl oxide sulfonates
Aminomethylene phosphonic acid salts
Aryltriazoles
Boric acid, Borates and Metaborates
Chlorinated dibenzo-p-dioxins and Chlorinated dibenzofurans
Foaming agents

Gross alpha radiation
Gross beta radiation
Isothiazolones, total
Linear alkyl benzene sulfonates (LAS)
Methylbenz(a)anthracenes
Phenolic compounds (total phenols)
Phenols, total chlorinated
Phenols, total unchlorinated
Polybrominated biphenyls
Polychlorinated biphenyls
Principal organic contaminant
Quaternary ammonium compounds
Sulfides, total

2. Determination of Applicability of POC Groundwater Standard to Individual Substances

The POC standard for groundwater (Table 1) is a general standard that applies individually to an unlimited number of substances in six chemical classes. Some, but by no means all of the individual POCs are listed in Table 1. Consequently, the applicability of this standard to specific substances must be determined.

The POC standard was originally developed by the New York State Department of Health (DOH) for drinking water. The definitions of the six POC classes (6 NYCRR section 700.1 and Table 4 of this TOGS), obtained from the DOH regulations, are definitive for the first two classes, but require interpretation for the others. Furthermore, some substances that meet the definition of a particular POC class may not be regulated by the POC standard because they have a more stringent specific standard. It is, therefore, important to follow sequentially the steps below for determining the applicability of the POC groundwater standard.

It should be noted that the POC applies as a general standard only to groundwater.

The recommended procedure consists of five steps. These steps must be followed in sequential order to avoid making an incorrect determination. They include reference to three tables within this TOGS, the use of definitions for two POC classes, and how to obtain assistance.

Step 1. Check Table 1 of this TOGS. If the substance is listed in Table 1 as having either a specific groundwater standard (POC or other) or groundwater guidance value, that listed value applies and the reader should not go further. If not, go on to Step 2.

Step 2. Check Table 3 of this TOGS, which is a partial list of substances to which the POC groundwater standard does not apply. If the substance is listed in Table 3, the standard does not apply and the reader should not go further. If the substance is not in Table 3, go

on to Step 3.

- Step 3. Compare the substance with the definitions of POC classes 1 and 2, below. If it meets either of these definitions, the POC groundwater standard applies and the reader should not go further. If it does not meet either definition, or if the reader is uncertain whether it does, go on to Step 4.

Definitions of POC Classes 1 and 2:

Class 1 - Halogenated alkane*: Compound containing carbon (C), hydrogen (H) and halogen (X) where X = fluorine (F), chlorine (Cl), bromide (Br) and/or iodine (I), having the general formula $C_nH_yX_z$, where $y + z = 2n + 2$; n, y and z are integer variables; n and z are equal to or greater than one and y is equal to or greater than zero.

Class 2 - Halogenated ether: Compound containing carbon (C), hydrogen (H), oxygen (O) and halogen (X) (where X = F, Cl, Br and/or I) having the general formula $C_nH_yX_zO$, where $y + z = 2n + 2$; the oxygen is bonded to two carbons; n, y and z are integer variables; n is equal to or greater than two, y is equal to or greater than zero and z is equal to or greater than one.

- Step 4. Although the definitions of the remaining classes are in regulation and reproduced in Table 4, determinations beyond this point involve interpretations, including chemical comparisons with previously determined substances. The user, therefore, should contact the Standards and Special Studies Section (Scott Stoner (518-485-5824) or John Zambrano (518-457-6997)) for assistance. They will make the determination, consulting with the DOH as needed. Provision of the CAS number and structure of the substance will facilitate the determination.

*Note: This definition does not mention the specific exclusions listed in the definition in regulation (6 NYCRR 700.1 and Table 4) because those excluded substances are listed in Table 1 of this TOGS and thus covered by Step 1 of this procedure

C. DEVELOPMENT, INTERPRETATION AND USE OF AMBIENT STANDARDS AND GUIDANCE VALUES

1. Development of Standards and Guidance Values

Guidance values are developed as needed with priorities primarily reflecting greater expected or observed occurrence in the environment and greater toxicity. Most requests for development of guidance values originate through the use and

discharge information that is generated through the State Pollutant Discharge Elimination System (SPDES) permit program. Standards are proposed for rule making with similar priority considerations.

As stated previously, a guidance value may be utilized where a standard has not been adopted for a substance. Guidance values that have been developed for surface waters and groundwaters are presented in Table 1. If a substance is judged to pose a threat to the environment and if no standard or guidance value is presented in Table 1 for that substance and water class, a request for development of a guidance value should be made to the Standards and Special Studies Section.

2. Analytical Methods

Section 700.3 provides the analytical requirements to determine compliance with water quality standards and guidance values. These regulations include specific analytical references and also refer to "...other methods approved by the department..." The Division of Water maintains a compilation of methods approved by the department in a separate Technical and Operational Guidance Series (TOGS) document.

There are a number of water quality standards and guidance values for which there is no approved analytical procedure. Use of these values should be accompanied by the identification of an acceptable analytical method.

3. SPDES Effluent Limits

Ambient water quality standards and guidance values are used to derive water quality-based effluent limitations for SPDES permits. Instruction for the derivation of these limitations is provided in separate TOGS documents. There are, however, a number of topics that warrant discussion here.

a. Hydrologic Flow Base and Averaging Period

The derivation of water quality based effluent limitations from ambient water quality standards or guidance values requires selection of a receiving water flow and the specification of an averaging period for the effluent limitation. Their selection will be a function of the variability of the receiving water flow and effluent load and the time period associated with the critical adverse effect. In general, standards and guidance values that are based on adverse effects that develop over time periods greater than a month will receive effluent limitations based on the minimum average 30 consecutive day receiving water flow with a one-in-ten year occurrence (MA30CD/10) and calculated as a monthly average. Values based on shorter-term adverse effects will generally receive effluent limitations based on MA7CD/10 flow and calculated as a daily maximum. Specific determinations, however, are made at the time of permit issuance.

b. Chemical Forms

Standards and guidance values apply to all forms of the substances unless otherwise specified.

Certain ambient standards and guidance values apply to a specific toxic form rather than all forms of the substance. Changes in the form of a substance can occur in the receiving water. As a result, the form of the substance that is specified as an effluent limitation may differ from the form of the ambient standard or guidance value.

c. Groundwater Effluent Limitations

Groundwater effluent limitations are discussed in Part II of this document.

d. Total of Organic Chemicals

Subparagraph 702.16(b)(3) of the water quality regulations specifies, for the purpose of deriving effluent limitations for surface water, an ambient value of 100 ug/L for the total of organic substances having a standard or guidance value established pursuant to the human-health methodologies. The substances included in this total are all of the organic substances listed in Table 1 of this TOGS that have a H(Ws) standard or guidance value less than 100 ug/L for surface water.

Table 1

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Acenaphthene (83-32-9)	A, A-S, AA, AA-S, B, C		5.3	A(C)	
	A, A-S, AA, AA-S, B, C, D		48	A(A)	
	SA, SB, SC, I		6.6	A(C)	
	SA, SB, SC, I, SD		60	A(A)	
	A, A-S, AA, AA-S	20		E	U
	GA		20	E	U
Acetone (67-64-1)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
Acrolein (107-02-8)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Acrylamide (79-06-1)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Acrylic acid (79-10-7)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
Acrylonitrile (107-13-1)	A, A-S, AA, AA-S		0.07	H(WS)	A
	GA	*		H(WS)	J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Alachlor (15972-60-8)	A, A-S, AA, AA-S	0.5		H(WS)	A
	GA	0.5		H(WS)	A
Aldicarb (116-06-3)	A, A-S, AA, AA-S	7		H(WS)	B
	GA	*		H(WS)	
Remark:	* Refer to entry for "Aldicarb and Methomyl."				
Aldicarb and Methomyl (116-06-3;16752-77-5)	GA	0.35*		H(WS)	F
Remark:	* Applies to the sum of these substances.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Aldicarb sulfone (1646-88-4)	A, A-S, AA, AA-S GA		2* 2*	H(WS) H(WS)	G G
Remark:	* This substance did not receive a review beyond determining the existence of a Specific MCL. A more in-depth review, currently underway, could lead to a more (but not less) stringent guidance value.				
Aldicarb sulfoxide (1646-87-3)	A, A-S, AA, AA-S GA		4* 4*	H(WS) H(WS)	G G
Remark:	* This substance did not receive a review beyond determining the existence of a Specific MCL. A more in-depth review, currently underway, could lead to a more (but not less) stringent guidance value.				
Aldrin (309-00-2)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA, SB, SC, SD I	ND * *	0.002 *	H(WS) H(WS) H(FC) H(FC) H(FC)	A F
Remark:	* Refer to entry for "Aldrin and Dieldrin."				
Aldrin and Dieldrin (309-00-2; 60-57-1)	A, A-S, AA, AA-S, B, C, D SA, SB, SC, SD I	0.001* 0.001*	0.001*	H(FC) H(FC) H(FC)	
Remark:	* Applies to the sum of these substances.				
Alkyl dimethyl benzyl ammonium chloride (68391-01-5)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C	*	50 50	H(WS) H(WS) A(C)	Z Z
Remark:	* Refer to entry for "Quaternary ammonium compounds."				
Alkyl diphenyl oxide sulfonates (CAS No. Not Applicable)	A, A-S, AA, AA-S GA		50* 50*	H(WS) H(WS)	Z Z
Remark:	* Applies to each alkyl diphenyl oxide sulfonate individually.				
Allyl chloride (107-05-1)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Aluminum, ionic (CAS No. Not Applicable)	A, A-S, AA, AA-S, B, C	100*		A(C)	
Remark:	* For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c).				
Ametryn (834-12-8)	A, A-S, AA, AA-S GA	50	50	H(WS) H(WS)	Z J

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
4-Aminobiphenyl (92-67-1)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Aminocresols (95-84-1; 2835-95-2; 2835-99-6)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C D	* * ** **		E E E E	
Remarks:	* Refer to entry for "Phenolic compounds (total phenols)." ** Refer to entry for "Phenols, total unchlorinated."				
Aminomethylene phosphonic acid salts (CAS No. Not Applicable)	A, A-S, AA, AA-S GA		50* 50*	H(WS) H(WS)	Z Z
Remark:	* Applies to each aminomethylene phosphonic acid salt individually.				
Aminopyridines (462-08-8; 504-24-5; 504-29-0; 26445-05-6)	A, A-S, AA, AA-S GA		1* 1*	H(WS) H(WS)	B B
Remark:	* Values listed apply to sum of these substances.				
3-Aminotoluene (108-44-1)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
4-Aminotoluene (106-49-0)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Ammonia and Ammonium (7664-41-7; CAS No. Not Applicable)	A, A-S, AA, AA-S	2,000*		H(W.S)	H
	GA	2,000*		H(W.S)	H
	A, A-S, AA, AA-S, B, C	**		A(C)	
	D	**		A(A)	

Remarks: * $\text{NH}_3 + \text{NH}_4^+$ as N.

** Un-ionized ammonia as NH_3 ; tables below provide the standard in ug/L at varying pH and temperature for different classes and specifications. Linear interpolation between the listed pH values and temperatures is applicable.

Classes A,A-S, AA, AA-S, B, C with the (T) or (TS) Specification

pH	0°C	5°C	10°C	15°C	20°C	25°C
6.50	0.7	0.9	1.3	1.9	2.6	3.3
6.75	1.2	1.7	2.3	3.3	4.7	6.6
7.00	2.1	2.9	4.2	5.9	8.3	11
7.25	3.7	5.2	7.4	11	15	19
7.50	6.6	9.3	13	19	26	33
7.75	11	15	22	31	43	59
8.0-9.0	13	18	25	35	50	65

Classes A, A-S, AA, AA-S, B, C without the (T) or (TS) Specification

pH	0°C	5°C	10°C	15°C	20°C	25°C
6.50	0.7	0.9	1.3	1.9	2.6	3.3
6.75	1.2	1.7	2.3	3.3	4.7	6.6
7.00	2.1	2.9	4.2	5.9	8.3	11
7.25	3.7	5.2	7.4	11	15	19
7.50	6.6	9.3	13	19	26	33
7.75	11	15	22	31	43	59
8.0-9.0	13	18	25	35	50	65

Class D

pH	0°C	5°C	10°C	15°C	20°C	25°C
6.50	9.1	13	18	26	36	51
6.75	15	21	30	42	59	84
7.00	23	33	46	66	93	131
7.25	34	48	68	95	140	190
7.50	45	64	91	130	180	260
7.75	56	80	110	160	220	320
8.0-9.0	65	92	130	180	260	370

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

Total Ammonia (mg/L NH₃)

Classes A, A-S, AA, AA-S, B, C with the (T) or (TS) Specification

<u>pH</u>	<u>0°C</u>	<u>5°C</u>	<u>10°C</u>	<u>15°C</u>	<u>20°C</u>	<u>25°C</u>	<u>30°C</u>
6.50	2.5	2.4	2.2	2.2	1.5	1.0	.73
6.75	2.5	2.4	2.2	2.2	1.5	1.0	.73
7.00	2.5	2.4	2.2	2.2	1.5	1.0	.74
7.25	2.5	2.4	2.2	2.2	1.5	1.0	.74
7.50	2.5	2.4	2.2	2.2	1.5	1.1	.74
7.75	2.3	2.2	2.1	2.0	1.4	.99	.71
8.00	1.5	1.4	1.4	1.3	.93	.66	.47
8.25	.87	.82	.78	.76	.54	.39	.28
8.50	.49	.47	.45	.44	.32	.23	.17
8.75	.28	.27	.26	.27	.19	.15	.11
9.00	.16	.16	.16	.16	.13	.10	.08

Classes A, A-S, AA, AA-S, B, C without the (T) or (TS) Specification

<u>pH</u>	<u>0°C</u>	<u>5°C</u>	<u>10°C</u>	<u>15°C</u>	<u>20°C</u>	<u>25°C</u>	<u>30°C</u>
6.50	2.5	2.4	2.2	2.2	2.1	1.5	1.0
6.75	2.5	2.4	2.2	2.2	2.1	1.5	1.0
7.00	2.5	2.4	2.2	2.2	2.1	1.5	1.0
7.25	2.5	2.4	2.2	2.2	2.1	1.5	1.1
7.50	2.5	2.4	2.2	2.2	2.1	1.5	1.1
7.75	2.3	2.2	2.1	2.0	1.9	1.4	1.0
8.00	1.5	1.4	1.3	1.3	1.3	.93	.67
8.25	.87	.82	.78	.76	.76	.54	.40
8.50	.49	.47	.45	.44	.45	.33	.25
8.75	.28	.27	.26	.27	.27	.21	.16
9.00	.16	.16	.16	.16	.17	.14	.11

Class D

<u>pH</u>	<u>0°C</u>	<u>5°C</u>	<u>10°C</u>	<u>15°C</u>	<u>20°C</u>	<u>25°C</u>	<u>30°C</u>
6.50	35	33	31	30	29	29	20
6.75	32	30	28	27	27	26	19
7.00	28	26	25	24	23	23	16
7.25	23	22	20	20	19	19	14
7.50	17	16	16	15	15	15	10
7.75	12	11	11	11	10	10	7.3
8.00	8.0	7.5	7.1	6.9	6.8	6.8	4.9
8.25	4.5	4.2	4.1	4.0	3.9	4.0	2.9
8.50	2.6	2.4	2.3	2.3	2.3	2.4	1.8
8.75	1.4	1.4	1.3	1.4	1.4	1.5	1.1
9.00	.86	.83	.83	.86	.91	1.0	.82

This table provides total ammonia concentrations that will contain the un-ionized ammonia concentration at the level of the standard at the respective pH and temperatures based on relationships established in USEPA 1985, Ambient Water Quality Criteria for Ammonia - 1984. Office of Water, Criteria & Standards Division, Washington, D.C. 20460. EPA 440/5-85-001. January 1985. (Cited, Thurston, R.V., R.C. Russo, and K. Emerson. 1979. Aqueous ammonia equilibrium - tabulation of percent un-ionized ammonia. EPA Ecol. Res. Ser. EPA-600/3-79-091. Environmental Research Laboratory, U.S. Environmental Protection Agency, Duluth, MN: 427 p.)

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Aniline (62-53-3)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark: * The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.					
Anthracene (120-12-7)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
	A, A-S, AA, AA-S, B, C		3.8	A(C)	
	A, A-S, AA, AA-S, B, C, D		35	A(A)	
Antimony (CAS No. Not Applicable)	A, A-S, AA, AA-S	3		H(WS)	B
	GA	3		H(WS)	B
Arsenic (CAS No. Not Applicable)	A, A-S, AA, AA-S	50		H(WS)	G
	GA	25		H(WS)	F
	A, A-S, AA, AA-S, B, C	150*		A(C)	
	A, A-S, AA, AA-S, B, C, D	340*		A(A)	
	SA, SB, SC	63*		A(C)	
	I		36*	A(C)	
	SD	120*		A(A)	
Remark: * Dissolved arsenic form.					
Aryltriazoles (CAS No. Not Applicable)	A, A-S, AA, AA-S		50*	H(WS)	Z
	GA		50*	H(WS)	Z
Remark: * Applies to each aryltriazole individually.					
Asbestos (CAS No. Not Applicable)	A, A-S, AA, AA-S	*		H(WS)	G
	GA	*		H(WS)	G
Remark: * 7,000,000 fibers (longer than 10 um)/L.					
Atrazine (1912-24-9)	A, A-S, AA, AA-S		3*	H(WS)	G
	GA	7.5		H(WS)	F
Azinphosmethyl (86-50-0)	A, A-S, AA, AA-S		0.07	H(WS)	A
	GA	4.4		H(WS)	F
	A, A-S, AA, AA-S, B, C	0.005*		A(C)	
	SA, SB, SC	0.01		A(C)	
	I		0.01	A(C)	
Remark: * For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c).					
Azobenzene (103-33-3)	A, A-S, AA, AA-S		0.5	H(WS)	A
	GA	*		H(WS)	J
Remark: * The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.					
Barium (CAS No. Not Applicable)	A, A-S, AA, AA-S	1,000		H(WS)	G
	GA	1,000		H(WS)	F

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Benefin (1861-40-1)	GA	35		H(WS)	F
Benz(a)anthracene (56-55-3)	A, A-S, AA, AA-S		0.002	H(WS)	A
	GA		0.002	H(WS)	A
	A, A-S, AA, AA-S, B, C		0.03	A(C)	
	A, A-S, AA, AA-S, B, C, D		0.23	A(A)	
Benzene (71-43-2)	A, A-S, AA, AA-S	1		H(WS)	A
	GA	1		H(WS)	A
	A, A-S, AA, AA-S, B, C, D	10		H(FC)	A
	SA, SB, SC, I, SD	10		H(FC)	A
	A, A-S, AA, AA-S, B, C		210	A(C)	
	A, A-S, AA, AA-S, B, C, D		760	A(A)	
	SA, SB, SC, I		190	A(C)	
	SA, SB, SC, I, SD		670	A(A)	
Benzidine (92-87-5)	A, A-S, AA, AA-S		0.02	H(WS)	A
	GA	*		H(WS)	J
	A, A-S, AA, AA-S, B, C	0.1**		A(C)	
	D	0.1**		A(A)	
Remarks:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance. ** For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c) and (d).				
Benzisothiazole (271-61-4)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
Benzo(b)fluoranthene (205-99-2)	A, A-S, AA, AA-S		0.002	H(WS)	A
	GA		0.002	H(WS)	A
Benzo(k)fluoranthene (207-08-9)	A, A-S, AA, AA-S		0.002	H(WS)	A
	GA		0.002	H(WS)	A
Benzo(a)pyrene (50-32-8)	A, A-S, AA, AA-S		0.002	H(WS)	A
	GA	ND		H(WS)	F
	A, A-S, AA, AA-S, B, C, D		0.0012	H(FC)	
	SA, SB, SC, I, SD		6×10^{-4}	H(FC)	
Beryllium (CAS No. Not Applicable)	A, A-S, AA, AA-S		3	H(WS)	B
	GA		3	H(WS)	B
	A, A-S, AA, AA-S, B, C	*		A(C)	
Remarks:	* 11 ug/L, when hardness is less than or equal to 75 ppm; 1,100 ug/L when hardness is greater than 75 ppm. * For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c). Aquatic Type standards apply to acid-soluble form.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
1,1'-Biphenyl (92-52-4)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Bis(2-chloroethoxy)methane (111-91-1)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Bis(2-chloroethyl)ether (111-44-4)	A, A-S, AA, AA-S GA	1.0	0.03	H(WS) H(WS)	A F
Bis(chloromethyl)ether (542-88-1)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Bis(2-chloro-1-methylethyl)ether (108-60-1)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Bis(2-ethylhexyl)phthalate (117-81-7)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C	5 5 0.6		H(WS) H(WS) A(C)	A A
Boric acid, Borates & Metaborates (CAS No. Not Applicable)	A, A-S, AA, AA-S GA		125* 125*	H(WS) H(WS)	B B
Remarks:	* Applies as boron equivalents. Values listed apply to the sum of these substances.				
Boron (CAS No. Not Applicable)	GA A, A-S, AA, AA-S, B, C SA, SB, SC I	1,000 10,000* 1,000		H(WS) A(C) A(C) A(C)	H
Remark:	* For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic standard if so determined under 702.15 (c). Aquatic Type standards and guidance value apply to acid-soluble form.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Bromacil (314-40-9)	GA	4.4		H(WS)	F
Bromide (CAS No. Not Applicable)	A, A-S, AA, AA-S GA		2,000 2,000	H(WS) H(WS)	B B
Bromobenzene (108-86-1)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Bromochloromethane (74-97-5)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Bromodichloromethane (75-27-4)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
Bromoform (75-25-2)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
Bromomethane (74-83-9)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Butachlor (23184-66-9)	GA	3.5		H(WS)	F
cis-2-Butenal (15798-64-8)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
trans-2-Butenal (123-73-9)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
cis-2-Butenenitrile (1190-76-7)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
trans-2-Butenenitrile (627-26-9)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Butoxyethoxyethanol (112-34-5)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
Butoxypropanol (5131-66-8)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
Butylate (2008-41-5)	A, A-S, AA, AA-S GA	50	50	H(WS) H(WS)	Z J
n-Butylbenzene (104-51-8)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
sec-Butylbenzene (135-98-8)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
tert-Butylbenzene (98-06-6)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Butyl benzyl phthalate (85-68-7)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
Butyl isopropyl phthalate (CAS No. Not Applicable)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Cadmium (CAS No. Not Applicable)	A, A-S, AA, AA-S	5		H(WS)	B,G
	GA	5		H(WS)	B,G
	SA, SB, SC, I, SD		2.7	H(FC)	
	A, A-S, AA, AA-S, B, C	*		A(C)	
	A, A-S, AA, AA-S, B, C, D	**		A(A)	
	SA, SB, SC, I	7.7		A(C)	
	SD	21		A(A)	
Remarks:	* (0.85) exp(0.7852 [ln (ppm hardness)] - 2.715) ** (0.85) exp(1.128 [ln (ppm hardness)] - 3.6867) Aquatic Type standards apply to dissolved form.				
Captan (133-06-2)	GA	18		H(WS)	F
Carbaryl (63-25-2)	GA	29		H(WS)	F
Carbofuran (1563-66-2)	A, A-S, AA, AA-S	15		H(WS)	B
	GA		15	H(WS)	B
	A, A-S, AA, AA-S, B, C	1.0*		A(C)	
	D	10*		A(A)	
Remark:	* For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c) and (d).				
Carbon tetrachloride (56-23-5)	A, A-S, AA, AA-S		0.4	H(WS)	A
	GA	5		H(WS)	F
Carboxin (5234-68-4)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA	50		H(WS)	J
Chloramben (CAS No. Not Applicable)	A, A-S, AA, AA-S		50*	H(WS)	Z
	GA	50*		H(WS)	J
Remark:	* Includes: related forms that convert to the organic acid upon acidification to a pH of 2 or less; and esters of the organic acid.				
Chloranil (118-75-2)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Chlordane (57-74-9)	A, A-S, AA, AA-S	0.05		H(WS)	A
	GA	0.05		H(WS)	A
	A, A-S, AA, AA-S, B, C, D	2×10^{-5}		H(FC)	A
	SA, SB, SC, I, SD	2×10^{-5}		H(FC)	A
Chloride (CAS No. Not Applicable)	A, A-S, AA, AA-S	250,000		H(WS)	H
	GA	250,000		H(WS)	H

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Chlorinated dibenzo-p-dioxins and Chlorinated dibenzofurans (CAS No. Not Applicable)	A, A-S, AA, AA-S	$7 \times 10^{-7*}$		H(WS)	A
	GA	$7 \times 10^{-7*}$		H(WS)	A
	A, A-S, AA, AA-S, B, C, D	$6 \times 10^{-10*}$		H(FC)	A
	SA, SB, SC, I, SD	$6 \times 10^{-10*}$		H(FC)	A
	A, A-S, AA, AA-S, B, C, D	$3.1 \times 10^{-9**}$		W	
	SA, SB, SC, I, SD	$3.1 \times 10^{-9**}$		W	
Remarks:	<p>* Value is for the total of the chlorinated dibenzo-p-dioxins and chlorinated dibenzofurans that are listed in the table below as equivalents of 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD).</p> <p>The 2,3,7,8-TCDD equivalent for a congener for the H(WS) standards is obtained by multiplying the concentration of that congener by its Toxicity Equivalency Factor (TEF) from the table below. The 2,3,7,8-TCDD equivalent for a congener for the H(FC) standards is obtained by multiplying the concentration of that congener by its TEF and its Bioaccumulation Equivalency Factor (BEF) from the table below.</p> <p>** Applies only to 2,3,7,8-TCDD</p>				
<u>CONGENER</u>		<u>TEF</u>	<u>BEF</u>		
2,3,7,8-Tetrachlorodibenzo-p-dioxin		1	1		
1,2,3,7,8-Pentachlorodibenzo-p-dioxin		0.5	0.9		
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin		0.1	0.3		
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin		0.1	0.1		
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin		0.1	0.1		
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin		0.01	0.05		
Octachlorodibenzo-p-dioxin		0.001	0.01		
2,3,7,8-Tetrachlorodibenzofuran		0.1	0.8		
1,2,3,7,8-Pentachlorodibenzofuran		0.05	0.2		
2,3,4,7,8-Pentachlorodibenzofuran		0.5	1.6		
1,2,3,4,7,8-Hexachlorodibenzofuran		0.1	0.08		
1,2,3,6,7,8-Hexachlorodibenzofuran		0.1	0.2		
2,3,4,6,7,8-Hexachlorodibenzofuran		0.1	0.7		
1,2,3,7,8,9-Hexachlorodibenzofuran		0.1	0.6		
1,2,3,4,6,7,8-Heptachlorodibenzofuran		0.01	0.01		
1,2,3,4,7,8,9-Heptachlorodibenzofuran		0.01	0.4		
Octachlorodibenzofuran		0.001	0.02		
Chlorine, Total Residual (CAS No. Not Applicable)	A, A-S, AA, AA-S, B, C	5		A(C)	
	D	19		A(A)	
	SA, SB, SC, I	7.5		A(C)	
	SD	13		A(A)	
2-Chloroaniline (95-51-2)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks:	<p>* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.</p> <p>** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.</p>				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
3-Chloroaniline (108-42-9)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
4-Chloroaniline (106-47-8)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Chlorobenzene (108-90-7)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
	A, A-S, AA, AA-S, B, C, D	400		H(FC)	B
	SA,SB, SC, I, SD	400		H(FC)	B
	A, A-S, AA, AA-S, B, C	5		A(C)	
	SA, SB, SC, I		5	A(C)	
	A, A-S, AA, AA-S	20		E	U
	D	50		E	V
	SD		50	E	V
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
4-Chlorobenzotrifluoride (98-56-6)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1-Chlorobutane (109-69-3)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Chloroethane (75-00-3)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Chloroform (67-66-3)	A, A-S, AA, AA-S GA	7 7		H(WS) H(WS)	A A

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Chloromethyl methyl ether (107-30-2)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2-Chloronaphthalene (91-58-7)	A, A-S, AA, AA-S GA	10	10	E E	U U
2-Chloronitrobenzene (88-73-3)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
3-Chloronitrobenzene (121-73-3)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
4-Chloronitrobenzene (100-00-5)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Chloroprene (126-99-8)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Chlorothalonil (1897-45-6)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
2-Chlorotoluene (95-49-8)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
3-Chlorotoluene (108-41-8)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
4-Chlorotoluene (106-43-4)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
4-Chloro-o-toluidine (95-69-2)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
	** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
5-Chloro-o-toluidine (95-79-4)	A, A-S, AA, AA-S GA	*	0.7	H(WS) H(WS)	A J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
3-Chloro-1,1,1-trifluoropropane (460-35-5)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Chromium (CAS No. Not Applicable)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C A, A-S, AA, AA-S, B, C, D	50 50 * **		H(WS) H(WS) A(C) A(A)	G G
Remarks:	* (0.86) exp(0.819 [ln (ppm hardness)] + 0.6848)				
	** (0.316) exp(0.819 [ln (ppm hardness)] + 3.7256)				
	Aquatic Type standards apply to dissolved form and do not include hexavalent chromium.				
Chromium (hexavalent) (CAS No. Not Applicable)	GA A, A-S, AA, AA-S, B, C A, A-S, AA, AA-S, B, C, D SA, SB, SC I SD	50 11* 16* 54** 1,200**		H(WS) A(C) A(A) A(C) A(C) A(A)	F
Remarks:	* Applies to dissolved form.				
	** Applies to acid-soluble form.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Chrysene (218-01-9)	A, A-S, AA, AA-S GA		0.002 0.002	H(WS) H(WS)	A A
Cobalt (CAS No. Not Applicable)	A, A-S, AA, AA-S, B, C D	5*	110	A(C) A(A)	
Remark:	* For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c). Aquatic Type standards and guidance value apply to acid-soluble form.				
Copper (CAS No. Not Applicable)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C A, A-S, AA, AA-S, B, C, D SA, SB, SC, I SA, SB, SC, I, SD	200 200 * ** *** ****		H(WS) H(WS) A(C) A(A) A(C) A(A)	H H
Remarks:	* (0.96) exp(0.8545 [ln (ppm hardness)] - 1.702) ** (0.96) exp(0.9422 [ln (ppm hardness)] - 1.7) *** Standard is 3.4 ug/L except in New York/New Jersey Harbor where it is 5.6 ug/L. **** Standard is 4.8 ug/L except in New York/New Jersey Harbor where it is 7.9 ug/L. Aquatic Type standards apply to dissolved form.				
Cyanide (CAS No. Not Applicable)	A, A-S, AA, AA-S GA A, A-S, AA-S, B, C, D SA, SB, SC, I, SD A, A-S, AA, AA-S, B, C A, A-S, AA, AA-S, B, C, D SA, SB, SC I SD	200 200 9,000 9,000 5.2* 22* 1.0* 1.0*		H(WS) H(WS) H(FC) H(FC) A(C) A(A) A(C) A(C) A(A)	H H B B
Remark:	* As free cyanide: the sum of HCN and CN ⁻ expressed as CN.				
Cyanogen bromide (506-68-3)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Cyanogen chloride (506-77-4)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Dalapon (CAS No. Not Applicable)	A, A-S, AA, AA-S GA	50*	50*	H(WS) H(WS)	Z J
Remark:	* Includes: related forms that convert to the organic acid upon acidification to a pH of 2 or less; and esters of the organic acid.				
p,p'-DDD (72-54-8)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD	0.3 0.3 8×10^{-5} 8×10^{-5} * *		H(WS) H(WS) H(FC) H(FC) W W	A A A A
Remark:	* Refer to entry for "p,p'-DDT."				
p,p'-DDE (72-55-9)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD	0.2 0.2 7×10^{-6} 7×10^{-6} * *		H(WS) H(WS) H(FC) H(FC) W W	A A A A
Remark:	* Refer to entry for "p,p'-DDT."				
p,p'-DDT (50-29-3)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD	0.2 0.2 1×10^{-5} 1×10^{-5} $1.1 \times 10^{-5*}$ $1.1 \times 10^{-5*}$		H(WS) H(WS) H(FC) H(FC) W W	A A A A
Remark:	* Applies to the sum of p,p'-DDD, p,p'-DDE and p,p'-DDT				
Dechlorane Plus (13560-89-9)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Demeton (8065-48-3; 298-03-3; 126-75-0)	A, A-S, AA, AA-S, B, C SA, SB, SC I	0.1* 0.1	0.1	A(C) A(C) A(C)	
Remark:	* Standards and guidance value apply to the sum of these substances. For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c).				
Diazinon (333-41-5)	GA A, A-S, AA, AA-S, B, C	0.7 0.08*		H(WS) A(C)	F
Remark:	* For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c).				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
1,2-Dibromobenzene (583-53-9)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1,3-Dibromobenzene (108-36-1)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1,4-Dibromobenzene (106-37-6)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Dibromochloromethane (124-48-1)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
1,2-Dibromo-3-chloropropane (96-12-8)	A, A-S, AA, AA-S GA	0.04 0.04		H(WS) H(WS)	A A
Dibromodichloromethane (594-18-3)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Dibromomethane (74-95-3)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
	** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,2-Dibromo-3-nitrilopropionamide and Dibromoacetoneitrile (10222-01-2; 3252-43-5)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C D		50* 50* 20 50	H(WS) H(WS) A(C) A(A)	Z Z
Remarks:	Values listed apply to the sum of these substances, except as noted below.				
	* Applies to 2,2-dibromo-3-nitrilopropionamide only.				
Di-n-butyl phthalate (84-74-2)	A, A-S, AA, AA-S GA	50	50	H(WS) H(WS)	Z J
Dicamba (1918-00-9)	GA	0.44		H(WS)	F

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Dichlorobenzenes (95-50-1;541-73-1;106-46-7)	A, A-S, AA, AA-S	3*		H(WS)	A
	GA	3*		H(WS)	A
	A, A-S, AA, AA-S, B, C	5**		A(C)	
	SA, SB, SC, I		5**	A(C)	
	A, A-S, AA, AA-S	20***/30****		E	U
	D	50**		E	V
	SD		50**	E	V
Remarks:	* Applies to each isomer (1,2-, 1,3- and 1,4-dichlorobenzene) individually. ** Applies to the sum of 1,2-, 1,3- and 1,4-dichlorobenzene *** Applies to 1,3-dichlorobenzene only. **** Applies to 1,4-dichlorobenzene only. For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c).				
3,3'-Dichlorobenzidine (91-94-1)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
3,4-Dichlorobenzotrifluoride (328-84-7)	A, A-S, AA, AA-S	5		H(WS)	I
	GA	*		H(WS)	J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
cis-1,4-Dichloro-2-butene (1476-11-5)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
trans-1,4-Dichloro-2-butene (110-57-6)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Dichlorodifluoromethane (75-71-8)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remark:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
1,1-Dichloroethane (75-34-3)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1,2-Dichloroethane (107-06-2)	A, A-S, AA, AA-S GA	0.6 0.6		H(WS) H(WS)	A A
1,1-Dichloroethene (75-35-4)	A, A-S, AA, AA-S GA	*	0.7	H(WS) H(WS)	A J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
cis-1,2-Dichloroethene (156-59-2)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
trans-1,2-Dichloroethene (156-60-5)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Dichlorofluoromethane (75-43-4)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,4-Dichlorophenol (120-83-2)	A, A-S, AA, AA-S GA	****	5*****	H(WS) H(WS)	I J
	A, A-S, AA, AA-S GA	0.3* **		E E	U
	A, A-S, AA, AA-S, B, C, D	***		E	
Remarks: *	Also see entry for "Phenolic compounds (total phenols)."				
**	Refer to entry for "Phenolic compounds (total phenols)."				
***	Refer to entry for "Phenols, total chlorinated."				
****	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
*****	This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
2,4-Dichlorophenoxyacetic acid (94-75-7)	A, A-S, AA, AA-S GA	50 50		H(WS) H(WS)	G G
1,1-Dichloropropane (78-99-9)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
1,2-Dichloropropane (78-87-5)	A, A-S, AA, AA-S GA	1 1		H(WS) H(WS)	A A
1,3-Dichloropropane (142-28-9)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,2-Dichloropropane (594-20-7)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1,1-Dichloropropene (563-58-6)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
	** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1,3-Dichloropropene (542-75-6)	A, A-S, AA, AA-S GA	0.4* 0.4*		H(WS) H(WS)	A A
Remark:	* Applies to the sum of cis- and trans-1,3-dichloropropene, CAS Nos. 10061-01-5 and 10061-02-6, respectively.				
2,3-Dichlorotoluene (32768-54-0)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,4-Dichlorotoluene (95-73-8)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,5-Dichlorotoluene (19398-61-9)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,6-Dichlorotoluene (118-69-4)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
3,4-Dichlorotoluene (95-75-0)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
3,5-Dichlorotoluene (25186-47-4)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Dieldrin (60-57-1)	A, A-S, AA, AA-S	0.004		H(WS)	A
	GA	0.004		H(WS)	A
	A, A-S, AA, AA-S, B, C, D	6×10^{-7}		H(FC)	A
	SA, SB, SC, I, SD	6×10^{-7}		H(FC)	A
	A, A-S, AA, AA-S, B, C	0.056		A(C)	
	A, A-S, AA, AA-S, B, C, D	0.24		A(A)	
Di(2-ethylhexyl)adipate (103-23-1)	A, A-S, AA, AA-S	20		H(WS)	A
	GA	20		H(WS)	A
Diethyl phthalate (84-66-2)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
1,2-Difluoro-1,1,2,2-tetrachloroethane (76-12-0)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
	** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1,2-Diisopropylbenzene (577-55-9)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
	** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1,3-Diisopropylbenzene (99-62-7)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
	** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
1,4-Diisopropylbenzene (100-18-5)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
N,N-Dimethylaniline (121-69-7)	A, A-S, AA, AA-S GA	1 1		H(WS) H(WS)	A A
2,3-Dimethylaniline (87-59-2)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,4-Dimethylaniline (95-68-1)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,5-Dimethylaniline (95-78-3)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,6-Dimethylaniline (87-62-7)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
3,4-Dimethylaniline (95-64-7)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
3,5-Dimethylaniline (108-69-0)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
3,3'-Dimethylbenzidine (119-93-7)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
4,4'-Dimethylbibenzyl (538-39-6)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
4,4'-Dimethyldiphenylmethane (4957-14-6)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Dimethylformamide (68-12-2)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
alpha, alpha-Dimethyl phenethylamine (122-09-8)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,4-Dimethylphenol (105-67-9)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD A, A-S, AA, AA-S GA B, C, D	 1,000 1,000 * * **	50 50	H(WS) H(WS) H(FC) H(FC) E E E	Z Z B B
Remarks:	* Refer to entry for "Phenolic compounds (total phenols)." ** Refer to entry for "Phenols, total unchlorinated."				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Dimethyl phthalate (131-11-3)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
Dimethyl tetrachloroterephthalate (1861-32-1)	A, A-S, AA, AA-S GA	50	50	H(WS) H(WS)	Z J
1,3-Dinitrobenzene (99-65-0)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,4-Dinitrophenol (51-28-5)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD A, A-S, AA, AA-S GA B, C, D	400 400 * * **	10 10	H(WS) H(WS) H(FC) H(FC) E E E	B B B B E
Remarks:	* Refer to entry for "Phenolic compounds (total phenols)." ** Refer to entry for "Phenols, total unchlorinated."				
2,3-Dinitrotoluene (602-01-7)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,4-Dinitrotoluene (121-14-2)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,5-Dinitrotoluene (619-15-8)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,6-Dinitrotoluene (606-20-2)	A, A-S, AA, AA-S GA	*	0.07	H(WS) H(WS)	A J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
3,4-Dinitrotoluene (610-39-9)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
3,5-Dinitrotoluene (618-85-9)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Di-n-octyl phthalate (117-84-0)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
Dinoseb (88-85-7)	A, A-S, AA, AA-S GA B, C, D	* * **		E E E	
Remarks:	* Refer to entry for "Phenolic compounds (total phenols)." ** Refer to entry for "Phenols, total unchlorinated."				
Diphenamid (957-51-7)	A, A-S, AA, AA-S GA	50	50	H(WS) H(WS)	Z J
Diphenylamine (122-39-4)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Diphenylhydrazines (122-66-7; 530-50-7)	A, A-S, AA, AA-S GA	ND**	0.05*	H(WS) H(WS)	A F
Remarks:	* Applies to 1,2-diphenylhydrazine (CAS No. 122-66-7) only. ** Applies to the sum of 1,1- and 1,2-diphenylhydrazine (CAS Nos. 530-50-7 and 122-66-7, respectively).				
Diquat (2764-72-9)	A, A-S, AA, AA-S GA	20* 20*		H(WS) H(WS)	B B
Remark:	* Applies to the concentration of diquat ion whether free or as an undissociated salt.				
Disulfoton (298-04-4)	GA	*		H(WS)	
Remark:	* Refer to entry for "Phorate and Disulfoton."				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Dodecylguanidine acetate and Dodecylguanidine hydrochloride (2439-10-3; 13590-97-1)	A, A-S, AA, AA-S		50*	H(WS)	B
	GA		50*	H(WS)	B
Remark: * Applies to sum of these substances.					
Dyphylline (479-18-5)	A, A-S, AA, AA-S	50		H(WS)	B
	GA		50	H(WS)	B
Endosulfan (115-29-7)	A, A-S, AA, AA-S, B, C	0.009		A(C)	
	D	0.22*		A(A)	
	SA, SB, SC	0.001		A(C)	
	I		0.001	A(C)	
	SD	0.034		A(A)	
Remark: * For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (d).					
Endothall (145-73-3)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
Endrin (72-20-8)	A, A-S, AA, AA-S	0.2		H(WS)	G
	GA	ND		H(WS)	F
	A, A-S, AA, AA-S, B, C, D	0.002		H(FC)	
	SA, SB, SC, SD	0.002		H(FC)	
	I		0.002	H(FC)	
	A, A-S, AA, AA-S, B, C	0.036		A(C)	
	A, A-S, AA, AA-S, B, C, D	0.086		A(A)	
Endrin aldehyde (7421-93-4)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks: * This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.					
Endrin ketone (53494-70-5)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks: * This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.					
Ethylbenzene (100-41-4)	A, A-S, AA, AA-S	5		H(WS)	I
	GA	*		H(WS)	J
	A, A-S, AA, AA-S, B, C		17	A(C)	
	A, A-S, AA, AA-S, B, C, D		150	A(A)	
	SA, SB, SC, I		4.5	A(C)	
	SA, SB, SC, I, SD		41	A(A)	
Remark: * The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.					

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Ethylene chlorohydrin (107-07-3)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
Ethylene dibromide (106-93-4)	A, A-S, AA, AA-S	6×10^{-4}		H(WS)	A
	GA	6×10^{-4}		H(WS)	A
Ethylene glycol (107-21-1)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
	A, A-S, AA, AA-S, B, C		500,000	A(C)	
	D		1,000,000	A(A)	
Ethylene oxide (75-21-8)	A, A-S, AA, AA-S		0.05	H(WS)	A
	GA		0.05	H(WS)	A
Ethylenethiourea (96-45-7)	GA	ND		H(WS)	F
Ferbam (14484-64-1)	GA	4.2		H(WS)	F
Fluometuron (2164-17-2)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA	50		H(WS)	J
Fluoranthene (206-44-0)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
Fluorene (86-73-7)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
	A, A-S, AA, AA-S, B, C		0.54	A(C)	
	A, A-S, AA, AA-S, B, C, D		4.8	A(A)	
	SA, SB, SC, I		2.5	A(C)	
	SA, SB, SC, I, SD		23	A(A)	
Fluoride (CAS No. Not Applicable)	A, A-S, AA, AA-S	1,500		H(WS)	H
	GA	1,500		H(WS)	F
	A, A-S, AA, AA-S, B, C	*		A(C)	
	D	**		A(A)	
Remarks: * (0.02) $\exp(0.907 [\ln(\text{ppm hardness})] + 7.394)$ ** (0.1) $\exp(0.907 [\ln(\text{ppm hardness})] + 7.394)$ For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c) and (d).					
Foaming agents (CAS No. Not Applicable)	GA	500*		E	U
Remark: * Determined as methylene blue active substances (MBAS) or by other tests as specified by the Commissioner.					
Folpet (133-07-3)	GA	50		H(WS)	J
Glyphosate (1071-83-6)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Gross alpha radiation (CAS No. Not Applicable)	A, A-S, AA, AA-S GA	* *		H(WS) H(WS)	G G
Remark: * 15 picocuries per liter, excluding radon and uranium.					
Gross beta radiation (CAS No. Not Applicable)	A, AA A-S, AA-S GA	* *	 * 	H(WS) H(WS) H(WS)	H H H
Remark: * 1,000 picocuries per liter, excluding strontium-90 and alpha emitters.					
Guaifenesin (93-14-1)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
Heptachlor (76-44-8)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD	0.04 0.04 2×10^{-4} 2×10^{-4}		H(WS) H(WS) H(FC) H(FC)	A A A A
Heptachlor epoxide (1024-57-3)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD	0.03 0.03 3×10^{-4} 3×10^{-4}		H(WS) H(WS) H(FC) H(FC)	A A A A
Hexachlorobenzene (118-74-1)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD	0.04 0.04 3×10^{-5} 3×10^{-5}		H(WS) H(WS) H(FC) H(FC)	A A A A
Hexachlorobutadiene (87-68-3)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD A, A-S, AA, AA-S, B, C D SA, SB, SC I SD	0.5 0.5 0.01 0.01 1.0* 10* 0.3 3.0	 0.3	H(WS) H(WS) H(FC) H(FC) A(C) A(A) A(C) A(C) A(A)	B B B B
Remark: * For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c) and (d).					
alpha-Hexachlorocyclohexane (319-84-6)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD	0.01 0.01 0.002 0.002		H(WS) H(WS) H(FC) H(FC)	A A A A
beta-Hexachlorocyclohexane (319-85-7)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD	0.04 0.04 0.007 0.007		H(WS) H(WS) H(FC) H(FC)	A A A A

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
delta-Hexachlorocyclohexane (319-86-8)	A, A-S, AA, AA-S	0.04		H(WS)	A
	GA	0.04		H(WS)	A
	A, A-S, AA, AA-S, B, C, D	0.008		H(FC)	A
	SA, SB, SC, I, SD	0.008		H(FC)	A
epsilon-Hexachlorocyclohexane (6108-10-7)	A, A-S, AA, AA-S	0.04		H(WS)	A
	GA	0.04		H(WS)	A
	A, A-S, AA, AA-S, B, C, D	0.008		H(FC)	A
	SA, SB, SC, I, SD	0.008		H(FC)	A
gamma-Hexachlorocyclohexane (58-89-9)	A, A-S, AA, AA-S	0.05		H(WS)	A
	GA	0.05		H(WS)	A
	A, A-S, AA, AA-S, B, C, D	0.008		H(FC)	A
	SA, SB, SC, I, SD	0.008		H(FC)	A
	A, A-S, AA, AA-S, B, C, D	0.95		A(A)	
Hexachlorocyclopentadiene (77-47-4)	A, A-S, AA, AA-S		5***	H(WS)	I
	GA	*		H(WS)	J
	A, A-S, AA, AA-S, B, C	0.45**		A(C)	
	D	4.5**		A(A)	
	SA, SB, SC	0.07		A(C)	
	I		0.07	A(C)	
	SD	0.7		A(A)	
	A, A-S, AA, AA-S	1.0		E	U
Remarks:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance. ** For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c) and (d). *** This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
Hexachloroethane (67-72-1)	A, A-S, AA, AA-S	5		H(WS)	A, I
	GA	*		H(WS)	J
	A, A-S, AA, AA-S, B, C, D	0.6		H(FC)	A
	SA, SB, SC, I, SD	0.6		H(FC)	A
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Hexachlorophene (70-30-4)	A, A-S, AA, AA-S		5****	H(WS)	I
	GA	*		H(WS)	J
	A, A-S, AA, AA-S	**		E	
	GA	**		E	
	B,C,D	***		E	
Remarks:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance. ** Refer to entry for "Phenolic compounds (total phenols)." *** Refer to entry for "Phenols, total chlorinated." **** This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Hexachloropropene (1888-71-7)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance..				
2-Hexanone (591-78-6)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
Hexazinone (51235-04-2)	A, A-S, AA, AA-S GA	50	50	H(WS) H(WS)	Z J
Hydrazine (302-01-2)	A, A-S, AA, AA-S, B, C D	* **		A(C) A(A)	
Remarks:	* 5 ug/L at less than 50 ppm hardness and 10 ug/L at greater than or equal to 50 ppm hardness. ** 50 ug/L at less than 50 ppm hardness and 100 ug/L at greater than or equal to 50 ppm hardness. For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c) and (d).				
Hydrogen sulfide (7783-06-4)	A, A-S, AA, AA-S, B, C SA, SB, SC I A, A-S, AA, AA-S GA	2.0* 2.0	2.0 ** **	A(C) A(C) A(C) E E	
Remarks:	* For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c). ** Refer to entry for "Sulfides, total." Aquatic Type standards and guidance value apply to undissociated form.				
Hydroquinone (123-31-9)	A, A-S, AA, AA-S, B, C D A, A-S, AA, AA-S GA B, C, D	2.2** 4.4** * * ***		A(C) A(A) E E E	
Remarks:	* Refer to entry for "Phenolic compounds (total phenols)." ** For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c) and (d). *** Refer to entry for "Phenols, total unchlorinated."				
1-Hydroxyethylidene- 1,1-diphosphonic acid (2809-21-4)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
2-(2-Hydroxy-3,5-di-tert-pentylphenyl)-benzotriazole (25973-55-1)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
	A, A-S, AA, AA-S	*		E	
	GA	*		E	
	B, C, D	**		E	
Remarks: * Refer to entry for "Phenolic compounds (total phenols)."					
** Refer to entry for "Phenols, total unchlorinated."					
Indeno (1,2,3-cd) pyrene (193-39-5)	A, A-S, AA, AA-S		0.002	H(WS)	A
	GA		0.002	H(WS)	A
Iron (CAS No. Not Applicable)	A, A-S, AA, AA-S, B, C	300**		A(C)	
	D	300**		A(A)	
	A, A-S, AA, AA-S	300		E	G
	GA	300*		E	F
Remarks: * Also see standard for "Iron and Manganese."					
** For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c) and (d).					
Iron and Manganese (CAS No. Not Applicable)	GA	500*		E	F
Remark: * Applies to the sum of these substances; also see individual standards for "Iron" and "Manganese."					
Isodecyl diphenyl phosphate (29761-21-5)	A, A-S, AA, AA-S, B, C	1.7*		A(C)	
	D	22*		A(A)	
Remark: * For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c) and (d).					
Isodrin (465-73-6)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks: * This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.					
** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.					
Isophorone (78-59-1)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
Isopropalin (33820-53-0)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks: * This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.					
** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.					

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Isopropylbenzene (98-82-8)	A, A-S, AA, AA-S	**	5*	H(WS)	I
	GA		H(WS)	J	
	A, A-S, AA, AA-S, B, C	2.6	A(C)		
	A, A-S, AA, AA-S, B, C, D	23	A(A)		
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
	** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2-Isopropyltoluene (527-84-4)	A, A-S, AA, AA-S	5		H(WS)	I
	GA	*		H(WS)	J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
3-Isopropyltoluene (535-77-3)	A, A-S, AA, AA-S	5		H(WS)	I
	GA	*		H(WS)	J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
4-Isopropyltoluene (99-87-6)	A, A-S, AA, AA-S	5		H(WS)	I
	GA	*		H(WS)	J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Isothiazolones, total (isothiazolinones) (includes 5-chloro-2-methyl-4-isothiazolin-3-one & 2-methyl-4-isothiazolin-3-one) (CAS No. Not Applicable)	A, A-S, AA, AA-S, B, C	1*		A(C)	
	D	10*		A(A)	
Remark:	* For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c) and (d). Standards apply to the sum of these substances.				
Kepone (143-50-0)	GA	ND		H(WS)	F
Lead (CAS No. Not Applicable)	A, A-S, AA, AA-S	50		H(WS)	G
	GA	25		H(WS)	F
	A, A-S, AA, AA-S, B, C	*		A(C)	
	A, A-S, AA, AA-S, B, C, D	**		A(A)	
	SA, SB, SC, I	8		A(C)	
	SA, SB, SC, I, SD	204		A(A)	
Remarks:	* {1.46203 - [ln (hardness) (0.145712)]} exp (1.273 [ln (hardness)] - 4.297)				
	** {1.46203 - [ln (hardness) (0.145712)]} exp (1.273 [ln (hardness)] - 1.052)				
	Aquatic Type standards apply to dissolved form.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Linear alkyl benzene sulfonates (LAS) (CAS No. Not Applicable)	A, A-S, AA, AA-S, B, C	40*		A(C)	
Remarks:	* LAS with side chains greater than 13 carbons only; applies to the sum of these substances. * For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c).				
Magnesium (CAS No. Not Applicable)	A, A-S, AA, AA-S GA	35,000	35,000	H(WS) H(WS)	B B
Malathion (121-75-5)	GA A, A-S, AA, AA-S, B, C SA, SB, SC I	7.0 0.1* 0.1	0.1	H(WS) A(C) A(C) A(C)	F
Remark:	* For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c).				
Mancozeb (8018-01-7)	GA	1.8		H(WS)	F
Maneb (12427-38-2)	GA	1.8		H(WS)	F
Manganese (CAS No. Not Applicable)	A, A-S, AA, AA-S GA	300 300*		E E	G F
Remark:	* Also see entry for "Iron and Manganese."				
Mercaptobenzothiazole (149-30-4)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
Mercury (CAS No. Not Applicable)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD A, A-S, AA, AA-S, B, C A, A-S, AA, AA-S, B, C, D A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD	0.7 0.7 7×10^{-4} * 7×10^{-4} * 0.77* 1.4* 0.0026* 0.0026*		H(WS) H(WS) H(FC) H(FC) A(C) A(A) W W	B B B B
Remark	* Applies to dissolved form.				
Methacrylic acid (79-41-4)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
Methacrylonitrile (126-98-7)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Methomyl (16752-77-5)	GA	*		H(WS)	
Remark:	* Refer to entry for "Aldicarb and Methomyl."				
Methoxychlor (72-43-5)	A, A-S, AA, AA-S	35		H(WS)	H
	GA	35		H(WS)	F
	A, A-S, AA, AA-S, B, C	0.03*		A(C)	
	SA, SB, SC	0.03		A(C)	
	I		0.03	A(C)	
Remark:	* For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c).				
(1-Methoxyethyl) benzene (4013-34-7)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
(2-Methoxyethyl) benzene (3558-60-9)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
N-Methylaniline (100-61-8)	A, A-S, AA, AA-S	5		H(WS)	I
	GA	*		H(WS)	J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Methylbenz(a)anthracenes (CAS No. Not Applicable)	A, A-S, AA, AA-S		0.002*	H(WS)	A
	GA		0.002*	H(WS)	A
Remark:	* Applies to the sum of these substances.				
Methyl chloride (74-87-3)	A, A-S, AA, AA-S	5		H(WS)	I
	GA	*		H(WS)	J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2-Methyl-4-chlorophenoxyacetic acid (94-74-6)	GA	0.44		H(WS)	F
4,4'-Methylene-bis-(2-chloroaniline) (101-14-4)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
	** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
4,4'-Methylene-bis-(N-methyl)- aniline (1807-55-2)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
4,4'-Methylene-bis-(N,N'-dimethyl) aniline (101-61-1)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Methylene bithiocyanate (6317-18-6)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C	1.0*	50 50	H(WS) H(WS) A(C)	Z Z
Remark:	* For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c).				
Methylene chloride (75-09-2)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA,SB, SC, I, SD	5 * 200 200		H(WS) H(WS) H(FC) H(FC)	I J A A
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
4-(1-Methylethoxy)-1-butanol (31600-69-8)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
2-Methylethyl-1,3-dioxolane (126-39-6)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
Methyl ethyl ketone (78-93-3)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
Methyl iodide (74-88-4)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Methyl methacrylate (80-62-6)	GA	50		H(WS)	J

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
2-Methylnaphthalene (91-57-6)	A, A-S, AA, AA-S, B, C		4.7	A(C)	
	A, A-S, AA, AA-S, B, C, D		42	A(A)	
	SA, SB, SC, I		4.2	A(C)	
	SA, SB, SC, I, SD		38	A(A)	
Methyl parathion (298-00-0)	GA	*		H(WS)	
	A, A-S, AA, AA-S, B, C	*		A(C)	
Remark: * Refer to entry for "Parathion and Methyl parathion."					
alpha-Methylstyrene (98-83-9)	A, A-S, AA, AA-S	5		H(WS)	I
	GA	*		H(WS)	J
Remark: * The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.					
2-Methylstyrene (611-15-4)	A, A-S, AA, AA-S	5		H(WS)	I
	GA	*		H(WS)	J
Remark: * The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.					
3-Methylstyrene (100-80-1)	A, A-S, AA, AA-S	5		H(WS)	I
	GA	*		H(WS)	J
Remark: * The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.					
4-Methylstyrene (622-97-9)	A, A-S, AA, AA-S	5		H(WS)	I
	GA	*		H(WS)	J
Remark: * The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.					
Metribuzin (21087-64-9)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA	50		H(WS)	J
Mirex (2385-85-5)	A, A-S, AA, AA-S	0.03		H(WS)	A
	GA	0.03		H(WS)	A
	A, A-S, AA, AA-S, B, C, D	1×10^{-6}		H(FC)	A
	SA, SB, SC, I, SD	1×10^{-6}		H(FC)	A
	A, A-S, AA, AA-S, B, C	0.001*		A(C)	
	D	0.001*		A(A)	
	SA, SB, SC	0.001		A(C)	
	I		0.001	A(C)	
	SD		0.001	A(A)	
Remark: * For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c) and (d).					
Nabam (142-59-6)	GA	1.8		H(WS)	F

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Naphthalene (91-20-3)	A, A-S, AA, AA-S, B, C		13	A(C)	
	A, A-S, AA, AA-S, B, C, D		110	A(A)	
	SA, SB, SC, I		16	A(C)	
	SA, SB, SC, I, SD		140	A(A)	
	A, A-S, AA, AA-S	10		E	U
	GA		10	E	U
Niacinamide (98-92-0)	A, A-S, AA, AA-S	500		H(WS)	B
	GA		500	H(WS)	B
Nickel (CAS No. Not Applicable)	A, A-S, AA, AA-S	100		H(WS)	B
	GA	100		H(WS)	B
	A, A-S, AA, AA-S, B, C	*		A(C)	
	A, A-S, AA, AA-S, B, C, D	**		A(A)	
	SA, SB, SC, I	8.2		A(C)	
	SA, SB, SC, I, SD	74		A(A)	
Remarks:	* (0.997) exp (0.846 [ln (hardness)] + 0.0584) ** (0.998) exp (0.846 [ln (hardness)] + 2.255) Aquatic Type standards apply to dissolved form.				
Nitralin (4726-14-1)	GA	35		H(WS)	F
Nitrate (expressed as N) (CAS No. Not Applicable)	A, A-S, AA, AA-S	10,000*		H(WS)	G
	GA	10,000*		H(WS)	G
Remark:	* Also see entry for "Nitrate and Nitrite."				
Nitrate and Nitrite (expressed as N) (CAS No. Not Applicable)	A, A-S, AA, AA-S	10,000*		H(WS)	G
	GA	10,000*		H(WS)	G
Remark:	* Applies to the sum of these substances; also see individual standards for "Nitrate" and "Nitrite."				
Nitrilotriacetic acid (CAS No. Not Applicable)	A, A-S, AA, AA-S	3*		H(WS)	A
	GA	3*		H(WS)	A
	A, A-S, AA, AA-S, B, C	5,000**		A(C)	
Remarks:	* Includes related forms that convert to nitrilotriacetic acid upon acidification to a pH of 2.3 or less. ** Applies to nitrilotriacetate. ** For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c).				
Nitrite (expressed as N) (CAS No. Not Applicable)	A, A-S, AA, AA-S	1,000*		H(WS)	G
	GA	1,000*		H(WS)	G
	A, A-S, AA, AA-S, B, C	**		A(C)	
Remarks:	* Also see entry for "Nitrate and Nitrite." ** Standard is 100 ug/L for warm water fishery waters and 20 ug/L for cold water fishery waters. ** For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c).				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
2-Nitroaniline (88-74-4)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
3-Nitroaniline (99-09-2)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
4-Nitroaniline (100-01-6)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Nitrobenzene (98-95-3)	A, A-S, AA, AA-S	0.4		H(WS)	A
	GA	0.4		H(WS)	A
	A, A-S, AA, AA-S	30		E	U
N-Nitrosodiphenylamine (86-30-6)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
2-Nitrotoluene (88-72-2)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
3-Nitrotoluene (99-08-1)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
4-Nitrotoluene (99-99-0)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
5-Nitro-o-toluidine (99-55-8)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Octachlorostyrene (29082-74-4)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD	0.2 0.2 6×10^{-6} 6×10^{-6}		H(WS) H(WS) H(FC) H(FC)	B B B B
Oxamyl (23135-22-0)	A, A-S, AA, AA-S GA	50	50	H(WS) H(WS)	Z J
Paraquat (4685-14-7)	GA	3.0		H(WS)	F
Parathion (56-38-2)	GA A, A-S, AA, AA-S, B, C A, A-S, AA, AA-S, B, C, D	* * 0.065		H(WS) A(C) A(A)	
Remark:	* Refer to entry for "Parathion and Methyl parathion."				
Parathion and Methyl parathion (56-38-2; 298-00-0)	GA A, A-S, AA, AA-S, B, C	1.5* 0.008**		H(WS) A(C)	F
Remarks:	* Applies to the sum of these substances. ** Applies to the sum of these substances. For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c).				
Pendimethalin (40487-42-1)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Pentachlorobenzene (608-93-5)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Pentachloroethane (76-01-7)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Pentachloronitrobenzene (82-68-8)	GA	ND		H(WS)	F
Pentachlorophenol (87-86-5)	A, A-S, AA, AA-S, B, C A, A-S, AA, AA-S, B, C, D A, A-S, AA, AA-S GA B, C, D	* ** *** *** ****		A(C) A(A) E E E	
Remarks:	* exp [1.005 (pH) - 5.134] ** exp [1.005 (pH) - 4.869] *** Refer to entry for "Phenolic compounds (total phenols)." **** Refer to entry for "Phenols, total chlorinated."				
Phenanthrene (85-01-8)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C A, A-S, AA, AA-S, B, C, D SA, SB, SC, I SA, SB, SC, I, SD		50 50 5.0 45 1.5 14	H(WS) H(WS) A(C) A(A) A(C) A(A)	Z Z
Phenol (108-95-2)	A, A-S, AA, AA-S GA B, C, D	* * **		E E E	
Remarks:	* Refer to entry for "Phenolic compounds (total phenols)." ** Refer to entry for "Phenols, total unchlorinated."				
Phenolic compounds (total phenols) (CAS No. Not Applicable)	A, A-S, AA, AA-S GA	1* 1*		E E	U U
Remark:	* Applies to the sum of these substances.				
Phenols, total chlorinated (CAS No. Not Applicable)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D	* * 1.0**		E E E	V
Remarks:	* Refer to entry for "Phenolic compounds (total phenols)." ** Applies to the sum of these substances.				
Phenols, total unchlorinated (CAS No. Not Applicable)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D	* * 5.0**		E E E	V
Remarks:	* Refer to entry for "Phenolic compounds (total phenols)." ** Applies to the sum of these substances.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
1,2-Phenylenediamine (95-54-5)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1,3-Phenylenediamine (108-45-2)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1,4-Phenylenediamine (106-50-3)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Phenyl ether (101-84-8)	A, A-S, AA, AA-S GA	10	10	E E	U U
Phenylhydrazine (100-63-0)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Phenylpropanolamine (14838-15-4)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
3-Phenyl-1-propene (637-50-3)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
cis-1-Phenyl-1-propene (766-90-5)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
trans-1-Phenyl-1-propene (873-66-5)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Phorate (298-02-2)	GA	*		H(WS)	
Remark: * Refer to entry for "Phorate and Disulfoton."					
Phorate and Disulfoton (298-02-2; 298-04-4)	GA	ND*		H(WS)	F
Remark: * Applies to sum of these substances.					
Phosphorus (CAS No. Not Applicable)	A, A-S, AA, AA-S, B		20*	**	**
Remarks: * Applies only where the letter "P" (ponds, lakes and reservoirs) appears in the Water Index Number, excluding Lake Champlain. The department is considering site-specific values for Lake Champlain and for Lake Ontario and Lake Erie, both of which do not have the letter "P" designation.					
** Based on aesthetic effects for primary and secondary contact recreation.					
Picloram (CAS No. Not Applicable)	A, A-S, AA, AA-S		50*	H(WS)	Z
	GA	50*		H(WS)	J
Remark: * Includes: related forms that convert to the organic acid upon acidification to a pH of 2 or less; and esters of the organic acid.					
Polybrominated biphenyls (CAS No. Not Applicable)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks: * This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. Value applies to each congener individually.					
** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to each congener individually.					
Polychlorinated biphenyls (CAS No. Not Applicable)	A, A-S, AA, AA-S	0.09*		H(WS)	A
	GA	0.09*		H(WS)	A
	A, A-S, AA, AA-S, B, C, D	1×10^{-6} *		H(FC)	A
	SA, SB, SC, I, SD	1×10^{-6} *		H(FC)	A
	A, A-S, AA, AA-S, B, C, D	1.2×10^{-4} *		W	
	SA, SB, SC, I, SD	1.2×10^{-4} *		W	
Remark: * Applies to the sum of these substances.					

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Principal organic contaminant (CAS No. Not Applicable)	GA	5		H(WS)	J
<p>Remarks: This standard applies to any and every individual substance, whether listed in this Table or not, that is in one of the principal organic contaminant classes as defined in 6 NYCRR 700.1 <u>except</u> any substance that has a H(WS) Type standard for class GA waters (other than 5 ug/L with Basis Code J) listed elsewhere in this Table.</p> <p>For the convenience of the reader, the principal organic contaminant standard of 5 ug/L (Basis Code J), is listed in this Table for some (but not all) substances regulated by this standard.</p> <p>A less stringent guidance value for an individual substance may be substituted for this standard if so determined by the Commissioner of the New York State Department of Health.</p>					
Prometon (1610-18-0)	A, A-S, AA, AA-S GA	50	50	H(WS) H(WS)	Z J
Propachlor (1918-16-7)	GA	35		H(WS)	F
Propanil (709-98-8)	GA	7.0		H(WS)	F
Propazine (139-40-2)	GA	16		H(WS)	F
Propham (122-42-9)	A, A-S, AA, AA-S GA	50	50	H(WS) H(WS)	Z J
n-Propylbenzene (103-65-1)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
<p>Remark: * The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.</p>					
Pyrene (129-00-0)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
	A, A-S, AA, AA-S, B, C		4.6	A(C)	
	A, A-S, AA, AA-S, B, C, D		42	A(A)	
Pyridine (110-86-1)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
Quaternary ammonium compounds (including dimethyl benzyl ammonium chloride & dimethyl ethyl benzyl ammonium chloride) (CAS No. Not Applicable)	A, A-S, AA, AA-S, B, C	10*		A(C)	
<p>Remarks: * Applies to the sum of these substances.</p> <p>* For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c).</p>					

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Radium 226 (CAS No. Not Applicable)	A, AA	*		H(WS)	H
	A-S, AA-S		*	H(WS)	H
	GA	*		H(WS)	H
Remark: * 3 picocuries per liter; also see entry for "Radium 226 and Radium 228."					
Radium 226 and Radium 228 (CAS No. Not Applicable)	A, A-S, AA, AA-S	*		H(WS)	G
	GA	*		H(WS)	G
Remark: * 5 picocuries per liter; Applies to the sum of these substances.					
Radium 228 (CAS No. Not Applicable)	A, A-S, AA, AA-S	*		H(WS)	
	GA	*		H(WS)	
Remark: * Refer to entry for "Radium 226 and Radium 228."					
Selenium (CAS No. Not Applicable)	A, A-S, AA, AA-S	10		H(WS)	G
	GA	10		H(WS)	G
	A, A-S, AA, AA-S, B, C	4.6*		A(C)	
Remark: * Aquatic Type standard applies to dissolved form.					
Silver (CAS No. Not Applicable)	A, A-S, AA, AA-S	50		H(WS)	G
	GA	50		H(WS)	F
	A, A-S, AA, AA-S, B, C	0.1*		A(C)	
	D	**		A(A)	
	SD	2.3		A(A)	
Remarks: * Applies to ionic silver. ** $\exp(1.72 [\ln(\text{ppm hardness})] - 6.52)$ Standards for D and SD Classes apply to acid-soluble form. For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c) and (d).					
Simazine (122-34-9)	A, A-S, AA, AA-S	0.5		H(WS)	A
	GA	0.5		H(WS)	A
Sodium (CAS No. Not Applicable)	GA	20,000		H(WS)	H
Strontium 90 (CAS No. Not Applicable)	A, A-S, AA, AA-S	*		H(WS)	G
Remarks: * 8 picocuries per liter. If two or more radionuclides are present, the sum of their doses shall not exceed an annual potential dose of 4 millirems per year.					
Styrene (100-42-5)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
	A, A-S, AA, AA-S	50		E	U
Remarks: * This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.					

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Sulfate (CAS No. Not Applicable)	A, A-S, AA, AA-S GA	250,000 250,000		H(WS) H(WS)	G F
Sulfides, total (CAS No. Not Applicable)	A, A-S, AA, AA-S, B, C SA, SB, SC I A, A-S, AA, AA-S GA	** **	 ** 50* 50*	A(C) A(C) A(C) E E	 U U
Remarks:	Values listed apply to sum of these substances. * Expressed as hydrogen sulfide. ** Refer to entry for "Hydrogen Sulfide."				
Sulfite (CAS No. Not Applicable)	A, A-S, AA, AA-S, B, C	200*		A(C)	
Remark:	* For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c).				
Tebuthiuron (34014-18-1)	A, A-S, AA, AA-S GA	50	50	H(WS) H(WS)	Z J
Terbacil (5902-51-2)	GA	50		H(WS)	J
Terbufos (13071-79-9)	A, A-S, AA, AA-S GA		0.09 0.09	H(WS) H(WS)	B B
Tetrachlorobenzenes (634-66-2; 634-90-2; 95-94-3; 12408-10-5)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S GA	 * 10**	5*** 10**	H(WS) H(WS) E E	I J U U
Remarks:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to each isomer (1,2,3,4-, 1,2,3,5-, and 1,2,4,5-tetrachlorobenzene) individually. ** Applies to the sum of 1,2,3,4-, 1,2,3,5- and 1,2,4,5-tetrachlorobenzene. *** This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent specific MCL. Value applies to each isomer individually.				
1,1,1,2-Tetrachloroethane (630-20-6)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1,1,2,2-Tetrachloroethane (79-34-5)	A, A-S, AA, AA-S GA	*	0.2	H(WS) H(WS)	A J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Tetrachloroethene (127-18-4)	A, A-S, AA, AA-S	*	0.7	H(WS)	A
	GA			H(WS)	J
	A, A-S, AA, AA-S, B, C, D		1	H(FC)	
	SA, SB, SC, I, SD		1	H(FC)	
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Tetrachloroterephthalic acid (2136-79-0)	GA	50		H(WS)	J
alpha, alpha, alpha, 4-Tetrachloro- toluene (5216-25-1)	A, A-S, AA, AA-S	**	5*	H(WS)	I
	GA			H(WS)	J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
	** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Tetrahydrofuran (109-99-9)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
1,2,3,4-Tetramethylbenzene (488-23-3)	A, A-S, AA, AA-S	**	5*	H(WS)	I
	GA			H(WS)	J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
	** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1,2,3,5-Tetramethylbenzene (527-53-7)	A, A-S, AA, AA-S	**	5*	H(WS)	I
	GA			H(WS)	J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
	** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1,2,4,5-Tetramethylbenzene (95-93-2)	A, A-S, AA, AA-S	**	5*	H(WS)	I
	GA			H(WS)	J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
	** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance..				
Thallium (CAS No. Not Applicable)	A, A-S, AA, AA-S		0.5	H(WS)	B
	GA		0.5	H(WS)	B
	A, A-S, AA, AA-S, B, C	8*		A(C)	
	D	20		A(A)	
Remark:	* For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c). Aquatic Type standards apply to acid-soluble form.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Theophylline (58-55-9)	A, A-S, AA, AA-S GA	40	40	H(WS) H(WS)	B B
Thiram (137-26-8)	GA	1.8		H(WS)	F
Toluene (108-88-3)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD A, A-S, AA, AA-S, B, C A, A-S, AA, AA-S, B, C, D SA, SB, SC, I SA, SB, SC, I, SD	5 * 6,000 6,000	100 480 92 430	H(WS) H(WS) H(FC) H(FC) A(C) A(A) A(C) A(A)	I J B B
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Toluene-2,4-diamine (95-80-7)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Toluene-2,5-diamine (95-70-5)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Toluene-2,6-diamine (823-40-5)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
o-Toluidine (95-53-4)	A, A-S, AA, AA-S GA	*	0.6	H(WS) H(WS)	A J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Tolyltriazole (29385-43-1)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Toxaphene (8001-35-2)	A, A-S, AA, AA-S	0.06		H(WS)	A
	GA	0.06		H(WS)	A
	A, A-S, AA, AA-S, B, C, D	6×10^{-6}		H(FC)	A
	SA, SB, SC, I, SD	6×10^{-6}		H(FC)	A
	A, A-S, AA, AA-S, B, C	0.005		A(C)	
	D	1.6*		A(A)	
	SA, SB, SC	0.005		A(C)	
	I		0.005	A(C)	
	SD		0.07	A(A)	
Remark:	* For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic standard if so determined under 702.15 (d).				
1,2,4-Tribromobenzene (615-54-3)	A, A-S, AA, AA-S	5		H(WS)	I
	GA	*		H(WS)	J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Tributyltin oxide (56-35-9)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
2,4,6-Trichloroaniline (634-93-5)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
	** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Trichlorobenzenes (87-61-6; 120-82-1; 108-70-3; 12002-48-1)	A, A-S, AA, AA-S		5***	H(WS)	I
	GA	*		H(WS)	J
	A, A-S, AA, AA-S, B, C	5**		A(C)	
	SA, SB, SC	5**		A(C)	
	I		5**	A(C)	
	A, A-S, AA, AA-S	10**		E	U
	GA		10**	E	U
	D	50**		E	V
	SD	50**		E	V
Remarks:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to each isomer (1,2,3-, 1,2,4- and 1,3,5-trichlorobenzene) individually.				
	** Applies to the sum of 1,2,3-, 1,2,4- and 1,3,5-trichlorobenzene.				
	For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c).				
	*** This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. Value applies to each isomer individually.				
1,1,1-Trichloroethane (71-55-6)	A, A-S, AA, AA-S	5		H(WS)	I
	GA	*		H(WS)	J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
1,1,2-Trichloroethane (79-00-5)	A, A-S, AA, AA-S GA	1 1		H(WS) H(WS)	A A
Trichloroethene (79-01-6)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD	5 * 40 40		H(WS) H(WS) H(FC) H(FC)	I J A A
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Trichlorofluoromethane (75-69-4)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,4,5-Trichlorophenoxyacetic acid (93-76-5)	GA	35		H(WS)	F
2,4,5-Trichlorophenoxypropionic acid (93-72-1)	A, A-S, AA, AA-S GA	10 0.26		H(WS) H(WS)	G F
1,1,2-Trichloropropane (598-77-6)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1,2,3-Trichloropropane (96-18-4)	A, A-S, AA, AA-S GA	0.04 0.04		H(WS) H(WS)	A A
cis-1,2,3-Trichloropropene (13116-57-9)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
trans-1,2,3-Trichloropropene (13116-58-0)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
alpha,2,4-Trichlorotoluene (94-99-5)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
alpha,2,6-Trichlorotoluene (2014-83-7)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
alpha,3,4-Trichlorotoluene (102-47-6)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
alpha,alpha,2-Trichlorotoluene (88-66-4)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
alpha,alpha,4-Trichlorotoluene (13940-94-8)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,3,4-Trichlorotoluene (7359-72-0)	A, A-S, AA, AA-S GA	*	0.34	H(WS) H(WS)	B J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,3,5-Trichlorotoluene (56961-86-5)	A, A-S, AA, AA-S GA	*	0.34	H(WS) H(WS)	B J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,3,6-Trichlorotoluene (2077-46-5)	A, A-S, AA, AA-S GA	*	0.34	H(WS) H(WS)	B J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,4,5-Trichlorotoluene (6639-30-1)	A, A-S, AA, AA-S GA	*	0.34	H(WS) H(WS)	B J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,4,6-Trichlorotoluene (23749-65-7)	A, A-S, AA, AA-S GA	*	0.34	H(WS) H(WS)	B J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1,1,1-Trichloro-2,2,2-trifluoroethane (354-58-5)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Trifluralin (1582-09-8)	GA	35		H(WS)	F
1,2,3-Trimethylbenzene (526-73-8)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1,2,4-Trimethylbenzene (95-63-6)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
	A, A-S, AA, AA-S, B, C		33	A(C)	
	A, A-S, AA, AA-S, B, C, D		290	A(A)	
	SA, SB, SC, I		19	A(C)	
	SA, SB, SC, I, SD		170	A(A)	
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1,3,5-Trimethylbenzene (108-67-8)	A, A-S, AA- AA-S GA	5 *		H(WS) H(WS)	I J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,3,6-Trimethylpyridine (1462-84-6)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
2,4,6-Trimethylpyridine (108-75-8)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
sym-Trinitrobenzene (99-35-4)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks: *	This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
**	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,3,4-Trinitrotoluene (602-29-9)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks: *	This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
**	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
2,3,6-Trinitrotoluene (18292-97-2)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,4,5-Trinitrotoluene (610-25-3)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,4,6-Trinitrotoluene (118-96-7)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
3,4,5-Trinitrotoluene (603-15-6)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Triphenyl phosphate (115-86-6)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C D	4* 40*	50 50	H(WS) H(WS) A(C) A(A)	Z Z
Remark:	* For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c) and (d).				
Tritium (CAS No. Not Applicable)	A, A-S, AA, AA-S	*		H(WS)	G
Remark:	* 20,000 picocuries per liter; if two or more radionuclides are present, the sum of their annual dose equivalent to the total body or any organ shall not exceed 4 millirems per year.				
Uranyl ion (CAS No. Not Applicable)	GA	5,000		H(WS)	H
Vanadium (CAS No. Not Applicable)	A, A-S, AA, AA-S, B, C D	14* 190*		A(C) A(A)	
Remark:	* For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c) and (d). Aquatic Type standards apply to acid-soluble form.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Vinyl chloride (75-01-4)	A, A-S, AA, AA-S GA	2	0.3	H(WS) H(WS)	A G
1,2-Xylene (95-47-6)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C A, A-S, AA, AA-S, B, C, D SA, SB, SC, I SA, SB, SC, I, SD	5 * 	 ** ** ** **	H(WS) H(WS) A(C) A(A) A(C) A(A)	I J
Remarks:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance. ** Refer to entry for "1,4-Xylene."				
1,3-Xylene (108-38-3)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C A, A-S, AA, AA-S, B, C, D SA, SB, SC, I SA, SB, SC, I, SD	5 * 	 ** ** ** **	H(WS) H(WS) A(C) A(A) A(C) A(A)	I J
Remarks:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance. ** Refer to entry for "1,4-Xylene."				
1,4-Xylene (106-42-3)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C A, A-S, AA, AA-S, B, C, D SA, SB, SC, I SA, SB, SC, I, SD	5 * 	 65** 590** 19** 170**	H(WS) H(WS) A(C) A(A) A(C) A(A)	I J
Remarks:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance. ** Applies to the sum of 1,2-, 1,3- and 1,4-xylene.				
Zinc (CAS No. Not Applicable)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C A, A-S, AA, AA-S, B, C, D SA, SB, SC, I SD A, A-S, AA, AA-S GA	 * ** 66 95 	2,000 2,000 5,000 5,000	H(WS) H(WS) A(C) A(A) A(C) A(A) E E	B B U U
Remarks:	Aquatic Type standards apply to dissolved form. * $\exp(0.85 [\ln(\text{ppm hardness})] + 0.50)$ ** $0.978 \exp(0.8473 [\ln(\text{ppm hardness})] + 0.884)$				
Zineb (12122-67-7)	GA	1.8		H(WS)	F
Ziram (137-30-4)	GA	4.2		H(WS)	F

TABLE 2
EXPLANATION OF BASIS CODES
IN TABLE 1

JUNE 1998

BASIS CODE	BASIS
A	Oncogenic, Human Health
B	Non-oncogenic, Human Health
F	Former Groundwater Regulations, 6 NYCRR 703.5(a)(3), Human Health or Aesthetics
G	Specific MCL, Human Health or Aesthetics
H	Former Use of or Reference to 10 NYCRR Part 170, Human Health or Aesthetics
I	Principal Organic Contaminant Classes, Human Health
J	Former Groundwater Reference to 10 NYCRR Subpart 5-1 General Standards, Human Health
U	Potable Water, Aesthetics
V	Aquatic Life, Aesthetics
Z	General Organic Guidance Value, Human Health

TABLE 3**PARTIAL LIST OF SUBSTANCES NOT REGULATED BY THE
PRINCIPAL ORGANIC CONTAMINANT (POC) GROUNDWATER STANDARD****JUNE 1998****Note: Refer to Text of Part I for Explanation****(No standard or guidance value for groundwater is available
for these substances as of the date of this document)**

SUBSTANCE	CAS NO.
Acenaphthylene	208-96-8
Acephate	30560-19-1
Acetone cyanohydrin	75-86-5
Acetonitrile	75-05-8
Acetophenone	98-86-2
2-Acetylaminofluorene	53-96-3
Allyl alcohol	107-18-6
Anisole	100-66-3
Aramite	140-57-8
Benzaldehyde	100-52-7
Benzeneacetic acid	103-82-2
1,2-Benzenedicarboxaldehyde	643-79-8
Benzenepropanoic acid	501-52-0
Benzoic acid	65-85-0
Benzoic acid, ammonium salt	1863-63-4
Benzo(g,h,i)perylene	191-24-2
Benzo(e)pyrene	192-97-2
Benzyl alcohol	100-51-6
Benzyl chloride	100-44-7
Bis(pentabromophenyl)ether	1163-19-5
4-Bromophenylphenylether	101-55-3
Bromophos	2104-96-3

TABLE 3 (Continued)**PARTIAL LIST OF SUBSTANCES NOT REGULATED BY THE
PRINCIPAL ORGANIC CONTAMINANT (POC) GROUNDWATER STANDARD****JUNE 1998****Note: Refer to Text of Part I for Explanation****(No standard or guidance value for groundwater is available
for these substances as of the date of this document)**

SUBSTANCE	CAS NO.
Bronopol	52-51-7
1-Butanol	71-36-3
tert-Butyl alcohol	75-65-0
Cacodylic acid	75-60-5
Caprolactam	105-60-1
Captafol	2425-06-1
Carbazole	86-74-8
Carbon disulfide	75-15-0
Chloral	75-87-6
Chloroacetic acid	79-11-8
Chlorobenzilate	510-15-6
4-Chlorobenzoic acid	74-11-3
2-Chloroethyl vinyl ether	110-75-8
4-(4-Chloro-2-methylphenoxy) butyric acid	94-81-5
2-(4-Chloro-2-methylphenoxy) propionic acid	93-65-2
4-Chlorophenyl phenyl ether	7005-72-3
Chlorpyrifos	2921-88-2
Cimectacarb	95266-40-3
Clopyralid	1702-17-6
Cyanazine	21725-46-2
Cyclohexane	110-82-7
Cyclohexanol	108-93-0

TABLE 3 (Continued)**PARTIAL LIST OF SUBSTANCES NOT REGULATED BY THE
PRINCIPAL ORGANIC CONTAMINANT (POC) GROUNDWATER STANDARD****JUNE 1998****Note: Refer to Text of Part I for Explanation****(No standard or guidance value for groundwater is available
for these substances as of the date of this document)**

SUBSTANCE	CAS NO.
Cyclohexanone	108-94-1
Cyclohexanone oxime	100-64-1
Cyclohexene	110-83-8
Cyclohexylamine	108-91-8
Cyclopentanone	120-92-3
Cyclotrimethylenetrinitramine	121-82-4
2,4-DB	94-82-6
Decanal	112-31-2
Demeton	8065-48-3
Diallate	2303-16-4
Dibenz(a,h)anthracene	55-70-3
Dibenzofuran	132-64-9
Dibromoacetonitrile	3252-43-5
Dibutyltin chloride	683-18-1
Dibutyltin dilaurate	77-58-7
Dichloroacetic acid	79-43-6
2,3-Dichloro-1,4-napthoquinone	117-80-6
alpha, alpha -Dichlorotoluene	98-87-3
Dicyclopentadiene	77-73-6
Diethylamine	109-89-7
2-(Diethylamino)ethanol	100-37-8
Diethylene glycol	111-46-6

TABLE 3 (Continued)**PARTIAL LIST OF SUBSTANCES NOT REGULATED BY THE
PRINCIPAL ORGANIC CONTAMINANT (POC) GROUNDWATER STANDARD****JUNE 1998****Note: Refer to Text of Part I for Explanation****(No standard or guidance value for groundwater is available
for these substances as of the date of this document)**

SUBSTANCE	CAS NO.
Diethylene glycol monoethyl ether	111-90-0
Diethyl formamide	617-84-4
Diethyl maleate	141-05-9
o,o-Diethyl-o-2-pyrazinyl phosphorothioate	297-97-2
Diethyltin dycaprylate	2641-56-7
2,3-Dihydro-1,6-dimethyl-1H-indene	17059-48-2
2,3-Dihydro-1-methyl-1H-indene	767-58-8
Diisopropylamine	108-18-9
Diisopropyl ether	108-20-3
Dimethoate	60-51-5
3,3'-Dimethoxybenzidine	119-90-4
Dimethylamine	124-40-3
4-(Dimethylamino)azobenzene	60-11-7
7,12-Dimethylbenz(a)anthracene	57-97-6
Dimethylbenzylammonium chloride	1875-92-9
trans-1,4-Dimethylcyclohexane	2207-04-7
Dimethyldioxane	25136-55-4
Dimethyldithiocarbamate	79-45-8
Dimethylethylbenzylammonium chloride	5197-80-8
2,5-Dimethylfuran	625-86-5
1,1-Dimethylhydrazine	57-14-7
1,2-Dimethylhydrazine	540-73-8

TABLE 3 (Continued)

**PARTIAL LIST OF SUBSTANCES NOT REGULATED BY THE
PRINCIPAL ORGANIC CONTAMINANT (POC) GROUNDWATER STANDARD**

JUNE 1998

Note: Refer to Text of Part I for Explanation

**(No standard or guidance value for groundwater is available
for these substances as of the date of this document)**

SUBSTANCE	CAS NO.
Dimethylphenylcarbinol	617-94-7
Dimethylterephthalate	120-61-6
1,4-Dioxane	123-91-1
Dodecanoic acid	143-07-7
Endosulfan I	959-98-8
Endosulfan II	33213-65-9
Endosulfan sulfate	1031-07-8
Epichlorohydrin	106-89-8
Ethion	563-12-2
2-Ethoxyethanol	110-80-5
2-Ethoxyethanol acetate	111-15-9
Ethyl acetate	141-78-6
Ethyl acrylate	140-88-5
Ethyl di-n-propylthiocarbamate (EPTC)	759-96-4
Ethylene cyanohydrin	109-78-4
Ethyl ether	60-29-7
Ethyl methacrylate	97-63-2
Ethyl methane sulfonate	62-50-0
Famphur	52-85-7
Formaldehyde	50-00-0
Formic acid	64-18-6
Furan	110-00-9

TABLE 3 (Continued)**PARTIAL LIST OF SUBSTANCES NOT REGULATED BY THE
PRINCIPAL ORGANIC CONTAMINANT (POC) GROUNDWATER STANDARD****JUNE 1998****Note: Refer to Text of Part I for Explanation****(No standard or guidance value for groundwater is available
for these substances as of the date of this document)**

SUBSTANCE	CAS NO.
Furazolidone	67-45-8
Furfural	98-01-1
Furium	531-82-8
Glycidaldehyde	765-34-4
n-Heptane	142-82-5
1-Heptanol	111-70-6
2-Heptanol	543-49-7
3-Heptanol	589-82-2
4-Heptanol	589-55-9
Hexamethylene diamine	124-09-4
Hexanate	25056-70-6
n-Hexane	110-54-3
3-Hexanone	589-38-8
Hydrazine	302-01-2
3-Hydroxycarbofuran	16655-82-6
alpha-Hydroxy-alpha-methylbenzeneacetic acid	515-30-0
1,3-Isobenzofurandione	85-44-9
1(3H)-Isobenzofuranone	87-41-2
Isobutyl alcohol	78-83-1
Isodecyl diphenylphosphate	29761-21-5
Isopropyl alcohol	67-63-0
Isopropylamine	75-31-0

TABLE 3 (Continued)**PARTIAL LIST OF SUBSTANCES NOT REGULATED BY THE
PRINCIPAL ORGANIC CONTAMINANT (POC) GROUNDWATER STANDARD****JUNE 1998****Note: Refer to Text of Part I for Explanation****(No standard or guidance value for groundwater is available
for these substances as of the date of this document)**

SUBSTANCE	CAS NO.
Isopropylbenzene hydroperoxide	80-15-9
Isosafrole	120-58-1
Isothiazolones	NA
Linear alkylbenzenesulfonates	NA
Linuron	330-55-2
2,5-Lutidine	589-93-5
Maleic anhydride	108-31-6
Maleic hydrazide	123-33-1
Malononitrile	109-77-3
Methacrylamide	79-39-0
Methanol	67-56-1
Methapyrilene	91-80-5
2-Methoxyethanol	109-86-4
2-Methoxyethanol acetate	110-49-6
2-Methoxy-5-nitroaniline	99-59-2
Methyl acetate	79-20-9
Methylacrylate	96-33-3
Methylamine	74-89-5
2-Methylanthracene	613-12-7
9-Methylanthracene	779-02-2
2-Methylbenzaldehyde	529-20-4
3-Methylbenzaldehyde	620-23-5

TABLE 3 (Continued)**PARTIAL LIST OF SUBSTANCES NOT REGULATED BY THE
PRINCIPAL ORGANIC CONTAMINANT (POC) GROUNDWATER STANDARD****JUNE 1998****Note: Refer to Text of Part I for Explanation****(No standard or guidance value for groundwater is available
for these substances as of the date of this document)**

SUBSTANCE	CAS NO.
4-Methylbenzaldehyde	104-87-0
4-Methylbenzenemethanol	589-18-4
2-Methyl benzene sulfonamide	88-19-7
4-Methyl benzene sulfonamide	70-55-3
2-Methylbenzoic acid	118-90-1
3-Methylbenzoic acid	99-04-7
Methyl tert-butyl ether	1634-04-4
3-Methylcholanthrene	56-49-5
Methylcyclopentane	96-37-7
Methylmethanesulfonate	66-27-3
1-Methyl-4-(1-methylethenyl)cyclohexene	138-86-3
2-Methylnaphthalene	91-57-6
Methylolmethacrylamide	923-02-4
4-Methyl-2-pentanone	108-10-1
Methylphthalate	4376-18-5
Metolachlor	51218-45-2
Molinate	2212-67-1
1,4-Naphthoquinone	130-15-4
1-Naphthylamine	134-32-7
2-Naphthylamine	91-59-8
Nitrocyclohexane	1122-60-7
Nitrofurantoin	67-20-9

TABLE 3 (Continued)**PARTIAL LIST OF SUBSTANCES NOT REGULATED BY THE
PRINCIPAL ORGANIC CONTAMINANT (POC) GROUNDWATER STANDARD****JUNE 1998****Note: Refer to Text of Part I for Explanation****(No standard or guidance value for groundwater is available
for these substances as of the date of this document)**

SUBSTANCE	CAS NO.
Nitrofurazone	59-87-0
2-Nitropropane	79-46-9
4-Nitroquinoline-1-oxide	56-57-5
N-Nitrosodi-N-butylamine	924-16-3
N-Nitrosodiethylamine	55-18-5
N-Nitrosodimethylamine	62-75-9
N-Nitrosodipropylamine	621-64-7
N-Nitrosomethylethylamine	10595-95-6
N-Nitroso-N-methyl urea	684-93-5
N-Nitrosomorpholine	59-89-2
N-Nitrosopiperidine	100-75-4
N-Nitrosopyrrolidine	930-55-2
Nonanal	124-19-6
1-Nonanol	143-08-8
Octamethylpyrophosphoramine	152-16-9
Oxalic acid, benzyl ester	35448-14-7
Pebulate	1114-71-2
Pentamate	136-25-4
Phenacetin	62-44-2
alpha-Picoline	109-06-8
Polybutene(1-propene,2-methyl homopolymer)	9003-27-4
Prodiamine	29091-21-2

TABLE 3 (Continued)**PARTIAL LIST OF SUBSTANCES NOT REGULATED BY THE
PRINCIPAL ORGANIC CONTAMINANT (POC) GROUNDWATER STANDARD****JUNE 1998****Note: Refer to Text of Part I for Explanation****(No standard or guidance value for groundwater is available
for these substances as of the date of this document)**

SUBSTANCE	CAS NO.
Profluralin	26399-36-0
Pronamide	23950-58-5
1-Propanol	71-23-8
1-Propene	115-07-1
Propionitrile	107-12-0
Propylene glycol	58-55-6
Propylene glycol monoethyl ether	19089-47-5
Propylene glycol monomethyl ether	1589-49-7
Propylene oxide	75-56-9
Quaternary ammonium compounds	NA
Quinoline	91-22-5
1,4-Quinone dioxide	105-11-3
Reserpine	50-55-5
Rhodamine WT	37299-86-8
Ronnel	299-84-3
Rotenone	83-79-4
Safrole	94-59-7
Sodium adipate, disodium salt	7486-38-6
Sodium diethyldithiocarbamate	148-18-5
Strychnine	57-24-9
Tetraethyl dithiopyrophosphate	3689-24-5
Tetraethyl lead	78-00-2
Tetraethyl tin	597-64-8

TABLE 3 (Continued)

**PARTIAL LIST OF SUBSTANCES NOT REGULATED BY THE
PRINCIPAL ORGANIC CONTAMINANT (POC) GROUNDWATER STANDARD**

JUNE 1998

Note: Refer to Text of Part I for Explanation

**(No standard or guidance value for groundwater is available
for these substances as of the date of this document)**

SUBSTANCE	CAS NO.
2-(Thiocyanomethylthio) benzothiazole	21564-17-0
Thiofanox	39196-18-4
Thiourea	62-56-6
Toluene diisocyanate	584-84-9
Triallate	2303-17-5
Trichloroacetic acid	76-03-9
alpha, alpha, alpha-Trichlorotoluene	98-07-7
Triethylamine	121-44-8
o,o,o-Triethylphosphorothioate	126-68-1
3,3,5-Trimethylcyclohexanone	873-94-9
Trimethyl phosphate	512-56-1
Vernolate	1929-77-7
Vinyl acetate	108-05-4
Warfarin	81-81-2
NA = Not Applicable	

TABLE 4

DEFINITION FOR PRINCIPAL ORGANIC CONTAMINANT CLASSES*

(excerpted from 6 NYCRR Section 700.1)

JUNE 1998

Principal organic contaminant classes means the following classes of organic chemicals.

- (1) Halogenated alkane: Compound containing carbon (C), hydrogen (H) and halogen (X) where X = fluorine (F), chlorine (Cl), bromine (Br) and/or iodine (I), having the general formula $C_nH_yX_z$, where $y + z = 2n + 2$; n, y and z are integer variables; n and z are equal to or greater than one and y is equal to or greater than zero. Specifically excluded from this class are chloroform, bromoform, bromodichloromethane and dibromochloromethane.
- (2) Halogenated ether: Compound containing carbon (C), hydrogen (H), oxygen (O) and halogen (X) (where X = F, Cl, Br and/or I) having the general formula $C_nH_yX_zO$, where $y + z = 2n + 2$; the oxygen is bonded to two carbons; n, y and z are integer variables; n is equal to or greater than two, y is equal to or greater than zero and z is equal to or greater than one.
- (3) Halobenzenes and substituted halobenzenes: Derivatives of benzene which have at least one halogen atom attached to the ring and which may or may not have straight or branched chain hydrocarbon, nitrogen or oxygen substituents.
- (4) Benzene and alkyl- or nitrogen-substituted benzenes: Benzene or a derivative of benzene which has either an alkyl- and/or a nitrogen-substituent.
- (5) Substituted, unsaturated hydrocarbons: A straight or branched chain unsaturated hydrocarbon compound containing one of the following: halogen, aldehyde, nitrile, amide.
- (6) Halogenated non-aromatic cyclic hydrocarbons: A non-aromatic cyclic compound containing a halogen.

*Note: Determining the applicability of the POC groundwater standard to a specific substance can be a complex process that should not be undertaken using these definitions alone. Refer to Section III of the Introduction of this TOGS (page 7) for instructions.

PART II GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

The Division of Water (DOW) regulates point source discharges to class GA groundwater primarily through the use of effluent limitations that have been established statewide. These effluent limitations are set at concentrations that should prevent contaminants from exceeding ambient groundwater standards and guidance values, which are applicable in the saturated zone. Class GA groundwaters are all fresh groundwaters. Groundwater effluent limitations are provided in Table 5 and discussed in this Part. (Ambient standards and guidance values that relate to these effluent limitations were provided in Table 1 of this TOGS and described in Part I).

A. DEFINITIONS

This section presents definitions for key terms that are used in the text and tables. The definitions are similar to the ones that appear in regulation, Part 700. Additional explanation is provided where appropriate.

1. "Groundwaters" mean those waters in saturated zones.
2. "Saturated zones" mean any extensive portion of the earth's crust that contains sufficient water to fill all interconnected voids or pore space.
3. "Fresh groundwaters" mean those groundwaters having a chloride concentration equal to or less than 250 mg/L or a total dissolved solids concentration equal to or less than 1,000 mg/L.
4. "Saline groundwaters" mean groundwaters having a chloride concentration of more than 250 mg/L or a total dissolved solids concentration of more than 1,000 mg/L.
5. "Groundwater standards" and "groundwater guidance values" both mean such measures of purity or quality for any groundwaters in relation to their reasonable and necessary use. "Groundwater standards" are established by the Department pursuant to section 17-0301 of the Environmental Conservation Law, which means the values are included in regulation. "Groundwater guidance values" are established by the Department pursuant to section 702.1 of Title 6, which means the specific values are not in regulation.

Such standards and guidance values are often referred to as ambient values in this document to emphasize that they apply to samples of groundwater and are distinct from effluent limitations, which apply to samples of wastewater at the point of discharge.

6. "Groundwater effluent limitations" mean any restriction on quantities, qualities, rates and concentrations of chemical, physical, biological, and other constituents of effluents that are discharged into or allowed to run from an outlet or point source or any other discharge within the meaning of section 17-0501 of the Environmental Conservation Law into groundwater or unsaturated zones. Some groundwater effluent limitations are in regulation (703.6); the remainder are guidance.

B. GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

A groundwater effluent limitation is derived to prevent a contaminant from exceeding the ambient standard or guidance value in the saturated zone. An effluent limitation generally is set at or near the ambient value, partly on the assumption that for many toxic substances, sustained high percent removal in the unsaturated zone cannot be relied upon. The approach used provides a high degree of certainty that the ambient value will not be exceeded and also avoids the need for site-specific evaluations, which would be technically difficult, costly and time consuming.

Groundwater effluent limitations are presented in Table 5, alphabetically by substance. The same substance names as in Table 1 are used. The reader is cautioned that, as for ambient values, groundwater effluent limitations may apply to substances that may be identified only by a group entry, including "Principal organic contaminant." Guidance in Part I, Sections A and B should be useful to determining whether an effluent limitation exists for a particular substance.

The second column lists the groundwater effluent limitation in ug/L, unless otherwise noted. The third column, entitled "Category," provides information about the basis for the effluent limitation. (The Category is not the same as the Basis Code in Table 1.) The five Categories are as follows:

- Category A Effluent limitations that are in regulation (6 NYCRR 703.6)
- Category B Effluent limitations that are numerically equal to ambient guidance values, as provided in 702.16(c)(1).
- Category C Effluent limitations that are derived in this document for substances that have an ambient standard, but no corresponding effluent limitation in 703.6. (For organic substances, the effluent limitations have been set equal to the ambient standards. For metals, the effluent limitations have been set at twice the ambient standard.)
- Category D Effluent limitations for sodium and ammonia require case-by-case determinations. Significant removal of these substances can occur in the unsaturated zone and will be a function of site-specific factors.

Also, as indicated in Table 5, effluent limitations for radiological parameters will be established through Radiation Control Permits, Part 380.

As listed under “Organic substances, total” in Table 5, an effluent limitation of 100 ug/L for the total of certain organic substances is applicable, as provided in 702.16(c)(4). The substances that can be specified for this limitation are those organic substances that have an ambient groundwater standard or guidance value less than 100 ug/L. This includes all substances covered by the principal organic contaminant (POC) groundwater standard (Table 1) and other applicable “group” entries, whether they are listed individually in this TOGS or not.

C. IMPLEMENTATION OF GROUNDWATER EFFLUENT LIMITATIONS

1. Gross or Net Limitations.

Effluent limitations as listed in Table 5 are defined as gross limitations (i.e., without mathematical subtraction of the amounts present in intake water). These gross effluent limitations, however, may not be appropriate where the concentration of a substance in the receiving aquifer exceeds the effluent limitation. General guidance for these situations is provided in other TOGS documents relating to the preparation of SPDES permits.

2. Modifications of Effluent Limitations

Section 702.19 allows, under certain conditions, modification of a groundwater effluent limitation. This includes those effluent limitations in 703.6 and those derived as numerically equivalent to a H(WS) Type guidance value. The included limitations are thus those designated as Categories A and B in Table 5. Such modifications may be allowed where the applicant demonstrates that a less restrictive effluent limitation will be sufficient to prevent groundwater concentrations from exceeding the ambient value. SPDES applications for such modifications are governed by the Uniform Procedures Act and require public notice of the proposed modification.

3. Exceptions to Effluent Limitations

The water quality regulations, section 702.21, provide exceptions for three activities to the requirement to impose the numerical effluent limitations in Table 5. Effluent limitations for the two point source activities, i.e., certain sewage and land application systems, should be determined on a case-by-case basis to achieve or maintain ambient standards and guidance values.

Table 5
NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)
JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
Acenaphthene (83-32-9)	20	B
Acetone (67-64-1)	50	B
Acrolein (107-02-8)	5	C
Acrylamide (79-06-1)	5	C
Acrylic acid (79-10-7)	50	B
Acrylonitrile (107-13-1)	5	C
Alachlor (15972-60-8)	0.5	A
Aldicarb (116-06-3)	*	
Remark: * See "Aldicarb and Methomyl."		
Aldicarb and Methomyl (116-06-3;16752-77-5)	0.35	A
Aldicarb sulfone (1646-88-4)	2	B
Aldicarb sulfoxide (1646-87-3)	4	B
Aldrin (309-00-2)	ND	A
Alkyl dimethyl benzyl ammonium chloride (68391-01-5)	50	B
Alkyl diphenyl oxide sulfonates (CAS No. Not Applicable)	50*	B
Remark: * Applies to each alkyl diphenyl oxide sulfonate individually.		
Allyl chloride (107-05-1)	5	C
Aluminum (CAS No. Not Applicable)	2,000	A
Ametryn (834-12-8)	50	C
4-Aminobiphenyl (92-67-1)	5	C
Aminocresols (95-84-1; 2835-95-2; 2835-99-6)	*	
Remark: * See "Phenolic compounds (total phenols)."		
Aminomethylene phosphonic acid salts (CAS No. Not Applicable)	50*	B
Remark: * Applies to each aminomethylene phosphonic acid salt individually.		
Aminopyridines (462-08-8; 504-24-5; 504-29-0; 26445-05-6)	1*	B
Remark: * Applies to the sum of these substances.		
3-Aminotoluene (108-44-1)	5	C
4-Aminotoluene (106-49-0)	5	C

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
Ammonia and Ammonium (7664-41-7; CAS No. Not Applicable) Remark: * $\text{NH}_3 + \text{NH}_4^+$ as N. Case-by-case determination of need and quantity.	*	D
Aniline (62-53-3)	5	C
Anthracene (120-12-7)	50	B
Antimony (CAS No. Not Applicable)	6	A
Arsenic (CAS No. Not Applicable)	50	A
Aryltriazoles (CAS No. Not Applicable) Remark: * Applies to each aryltriazole individually.	50*	B
Asbestos (fibers > 10 um) (CAS No. Not Applicable)	14,000,000 fibers/L	A
Atrazine (1912-24-9)	7.5	A
Azinphosmethyl (86-50-0)	4.4	A
Azobenzene (103-33-3)	5	C
Barium (CAS No. Not Applicable)	2,000	A
Benefin (1861-40-1)	35	A
Benz(a)anthracene (56-55-3)	0.002	B
Benzene (71-43-2)	1	A
Benzidine (92-87-5)	5	C
Benzisothiazole (271-61-4)	50	B
Benzo(b)fluoranthene (205-99-2)	0.002	B
Benzo(k)fluoranthene (207-08-9)	0.002	B
Benzo(a)pyrene (50-32-8)	ND	A
Beryllium (CAS No. Not Applicable)	3	B
1,1'-Biphenyl (92-52-4)	5	C
Bis(2-chloroethoxy)methane (111-91-1)	5	C
Bis(2-chloroethyl)ether (111-44-4)	1.0	A
Bis(chloromethyl)ether (542-88-1)	5	C
Bis(2-chloro-1-methylethyl)ether (108-60-1)	5	C

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
Bis(2-ethylhexyl)phthalate (117-81-7)	5	A
Boric acid, Borates & Metaborates (CAS No. Not Applicable)	125*	B
Remark: * Applies as boron equivalents to the sum of these substances.		
Boron (CAS No. Not Applicable)	2,000	C
Bromacil (314-40-9)	4.4	A
Bromide (CAS No. Not Applicable)	2,000	B
Bromobenzene (108-86-1)	5	C
Bromochloromethane (74-97-5)	5	C
Bromodichloromethane (75-27-4)	50	B
Bromoform (75-25-2)	50	B
Bromomethane (74-83-9)	5	C
Butachlor (23184-66-9)	3.5	A
cis-2-Butenal (15798-64-8)	5	C
trans-2-Butenal (123-73-9)	5	C
cis-2-Butenenitrile (1190-76-7)	5	C
trans-2-Butenenitrile (627-26-9)	5	C
Butoxyethoxyethanol (112-34-5)	50	B
Butoxypropanol (5131-66-8)	50	B
Butylate (2008-41-5)	50	C
n-Butylbenzene (104-51-8)	5	C
sec-Butylbenzene (135-98-8)	5	C
tert-Butylbenzene (98-06-6)	5	C
Butyl benzyl phthalate (85-68-7)	50	B
Butyl isopropyl phthalate (CAS No. Not Applicable)	50	B
Cadmium (CAS No. Not Applicable)	10	A
Captan (133-06-2)	18	A
Carbaryl (63-25-2)	29	A

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
Carbofuran (1563-66-2)	15	B
Carbon tetrachloride (56-23-5)	5	A
Carboxin (5234-68-4)	50	C
Chloramben (CAS No. Not Applicable)	50*	A
Remark: * Includes related forms that convert to the organic acid upon acidification to a pH of 2 or less; and esters of the organic acid.		
Chloranil (118-75-2)	5	C
Chlordane (57-74-9)	0.05	A
Chloride (CAS No. Not Applicable)	500,000	A
Chlorinated dibenzo-p-dioxins and Chlorinated dibenzofurans (CAS No. Not Applicable)	7×10^{-7} equivalents of 2,3,7,8-TCDD*	A
Remark: * Value is for the total of the chlorinated dibenzo-p-dioxins and chlorinated dibenzofurans as equivalents of 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD) as specified by the ambient Class GA H(W)S standard in Table 1 of this document.		
2-Chloroaniline (95-51-2)	5	C
3-Chloroaniline (108-42-9)	5	C
4-Chloroaniline (106-47-8)	5	C
Chlorobenzene (108-90-7)	5	C
4-Chlorobenzotrifluoride (98-56-6)	5	C
1-Chlorobutane (109-69-3)	5	C
Chloroethane (75-00-3)	5	C
Chloroform (67-66-3)	7	A
Chloromethyl methyl ether (107-30-2)	5	C
2-Chloronaphthalene (91-58-7)	10	B
2-Chloronitrobenzene (88-73-3)	5	C
3-Chloronitrobenzene (121-73-3)	5	C
4-Chloronitrobenzene (100-00-5)	5	C
Chloroprene (126-99-8)	5	C
Chlorothalonil (1897-45-6)	5	C

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
2-Chlorotoluene (95-49-8)	5	C
3-Chlorotoluene (108-41-8)	5	C
4-Chlorotoluene (106-43-4)	5	C
4-Chloro-o-toluidine (95-69-2)	5	C
5-Chloro-o-toluidine (95-79-4)	5	C
3-Chloro-1,1,1-trifluoropropane (460-35-5)	5	C
Chromium (CAS No. Not Applicable)	100	C
Chromium (hexavalent) (CAS No. Not Applicable)	100	A
Chrysene (218-01-9)	0.002	B
Copper (CAS No. Not Applicable)	1,000	A
Cyanide (CAS No. Not Applicable)	400	A
Cyanogen bromide (506-68-3)	5	C
Cyanogen chloride (506-77-4)	5	C
Dalapon (CAS No. Not Applicable)	50*	C
Remark: * Includes related forms that convert to the organic acid upon acidification to a pH of 2 or less; and esters of the organic acid.		
p,p'-DDD (72-54-8)	0.3	A
p,p'-DDE (72-55-9)	0.2	A
p,p'-DDT (50-29-3)	0.2	A
Dechlorane Plus (13560-89-9)	5	C
Diazinon (333-41-5)	0.7	A
1,2-Dibromobenzene (583-53-9)	5	C
1,3-Dibromobenzene (108-36-1)	5	C
1,4-Dibromobenzene (106-37-6)	5	C
Dibromochloromethane (124-48-1)	50	B
1,2-Dibromo-3-chloropropane (96-12-8)	0.04	A
Dibromodichloromethane (594-18-3)	5	C
Dibromomethane (74-95-3)	5	C

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
2,2-Dibromo-3-nitrilopropionamide (10222-01-2)	50	B
Di-n-butyl phthalate (84-74-2)	50	A
Dicamba (1918-00-9)	0.44	A
Dichlorobenzenes (95-50-1;541-73-1;106-47-6)	3*	A
Remark: * Applies to each dichlorobenzene individually.		
3,3'-Dichlorobenzidine (91-94-1)	5	C
3,4-Dichlorobenzotrifluoride (328-84-7)	5	C
cis-1,4-Dichloro-2-butene (1476-11-5)	5	C
trans-1,4-Dichloro-2-butene (110-57-6)	5	C
Dichlorodifluoromethane (75-71-8)	5	C
1,1-Dichloroethane (75-34-3)	5	C
1,2-Dichloroethane (107-06-2)	0.6	A
1,1-Dichloroethene (75-35-4)	5	C
cis-1,2-Dichloroethene (156-59-2)	5	C
trans-1,2-Dichloroethene (156-60-5)	5	C
Dichlorofluoromethane (75-43-4)	5	C
2,4-Dichlorophenol (120-83-2)	*	
Remark: * See "Phenolic compounds (total phenols)."		
2,4-Dichlorophenoxyacetic acid (94-75-7)	50	A
1,1-Dichloropropane (78-99-9)	5	C
1,2-Dichloropropane (78-87-5)	1	A
1,3-Dichloropropane (142-28-9)	5	C
2,2-Dichloropropane (594-20-7)	5	C
1,1-Dichloropropene (563-58-6)	5	C
1,3-Dichloropropene (sum of cis- and trans- isomers) (542-75-6)	0.4	A
2,3-Dichlorotoluene (32768-54-0)	5	C
2,4-Dichlorotoluene (95-73-8)	5	C

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
2,5-Dichlorotoluene (19398-61-9)	5	C
2,6-Dichlorotoluene (118-69-4)	5	C
3,4-Dichlorotoluene (95-75-0)	5	C
3,5-Dichlorotoluene (25186-47-4)	5	C
Dieldrin (60-57-1)	0.004	A
Di(2-ethylhexyl)adipate (103-23-1)	20	A
Diethyl phthalate (84-66-2)	50	B
1,2-Difluoro-1,1,2,2-tetrachloroethane (76-12-0)	5	C
1,2-Diisopropylbenzene (577-55-9)	5	C
1,3-Diisopropylbenzene (99-62-7)	5	C
1,4-Diisopropylbenzene (100-18-5)	5	C
N,N-Dimethylaniline (121-69-7)	1	A
2,3-Dimethylaniline (87-59-2)	5	C
2,4-Dimethylaniline (95-68-1)	5	C
2,5-Dimethylaniline (95-78-3)	5	C
2,6-Dimethylaniline (87-62-7)	5	C
3,4-Dimethylaniline (95-64-7)	5	C
3,5-Dimethylaniline (108-69-0)	5	C
3,3'-Dimethylbenzidine (119-93-7)	5	C
4,4'-Dimethylbibenzyl (538-39-6)	5	C
4,4'-Dimethyldiphenylmethane (4957-14-6)	5	C
Dimethylformamide (68-12-2)	50	B
alpha, alpha-Dimethyl phenethylamine (122-09-8)	5	C
2,4-Dimethylphenol (105-67-9)	*	
Remark: * See "Phenolic compounds (total phenols)."		
Dimethyl phthalate (131-11-3)	50	B

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
2,4-Dinitrophenol (51-28-5) Remark: * See "Phenolic compounds (total phenols)."	*	
Dimethyl tetrachloroterephthalate (1861-32-1)	50	C
1,3-Dinitrobenzene (99-65-0)	5	C
2,3-Dinitrotoluene (602-01-7)	5	C
2,4-Dinitrotoluene (121-14-2)	5	C
2,5-Dinitrotoluene (619-15-8)	5	C
2,6-Dinitrotoluene (606-20-2)	5	C
3,4-Dinitrotoluene (610-39-9)	5	C
3,5-Dinitrotoluene (618-85-9)	5	C
Di-n-octyl phthalate (117-84-0)	50	B
Dinoseb (88-85-7) Remark: * See "Phenolic compounds (total phenols)."	*	
Diphenamid (957-51-7)	50	C
Diphenylamine (122-39-4)	5	C
1,1-Diphenylhydrazine (530-50-7)	ND	C
1,2-Diphenylhydrazine (122-66-7)	ND	A
Diquat (2764-72-9)	20	A
Dissolved solids, total (CAS No. Not Applicable) Remark: * 1,000 mg/L; applies only in the counties of Nassau and Suffolk.	*	A
Disulfoton (298-04-4) Remark: * See "Phorate and Disulfoton."	*	
Dodecylguanidine acetate and Dodecylguanidine hydrochloride (2439-10-3; 13590-97-1) Remark: * Applies to the sum of these substances.	50*	B
Dyphylline (479-18-5)	50	B
Endothall (145-73-3)	50	B

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
Endrin (72-20-8)	ND	A
Endrin aldehyde (7421-93-4)	5	C
Endrin ketone (53494-70-5)	5	C
Ethylbenzene (100-41-4)	5	C
Ethylene chlorohydrin (107-07-3)	50	B
Ethylene dibromide (106-93-4)	6×10^{-4}	A
Ethylene glycol (107-21-1)	50	B
Ethylene oxide (75-21-8)	0.05	B
Ethylenethiourea (96-45-7)	ND	A
Ferbam (14484-64-1)	4.2	A
Fluometuron (2164-17-2)	50	C
Fluoranthene (206-44-0)	50	B
Fluorene (86-73-7)	50	B
Fluoride (CAS No. Not Applicable)	3,000	A
Foaming agents (CAS No. Not Applicable)	1,000*	A
Remark: * Determined as methylene blue active substances (MBAS) or by other tests as specified by the commissioner.		
Folpet (133-07-3)	50	A
Glyphosate (1071-83-6)	50	B
Gross alpha radiation (CAS No. Not Applicable)	*	
Remark: * Established through Radiation Control Permits (Part 380).		
Gross beta radiation (CAS No. Not Applicable)	*	
Remark: * Established through Radiation Control Permits (Part 380).		
Guaifenesin (93-14-1)	50	B
Heptachlor (76-44-8)	0.04	A
Heptachlor epoxide (1024-57-3)	0.03	A
Hexachlorobenzene (118-74-1)	0.04	A
Hexachlorobutadiene (87-68-3)	0.5	A

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
alpha-Hexachlorocyclohexane (319-84-6)	0.01	A
beta-Hexachlorocyclohexane (319-85-7)	0.04	A
delta-Hexachlorocyclohexane (319-86-8)	0.04	A
epsilon-Hexachlorocyclohexane (6108-10-7)	0.04	A
gamma-Hexachlorocyclohexane (58-89-9)	0.05	A
Hexachlorocyclopentadiene (77-47-4)	5	C
Hexachloroethane (67-72-1)	5	C
Hexachlorophene (70-30-4)	*	
Remark: * See "Phenolic compounds (total phenols)."		
Hexachloropropene (1888-71-7)	5	C
2-Hexanone (591-78-6)	50	B
Hexazinone (51235-04-2)	50	C
Hydrogen sulfide (7783-06-4)	*	
Remark: * See "Sulfides, total."		
Hydroquinone (123-31-9)	*	
Remark: * See "Phenolic compounds (total phenols)."		
1-Hydroxyethylidene-1,1-diphosphonic acid (2809-21-4)	50	B
2-(2-Hydroxy-3,5-di-tert-pentylphenyl)-benzotriazole (25973-55-1)	*	
Remark: * See "Phenolic compounds (total phenols)."		
Indeno (1,2,3-cd) pyrene (193-39-5)	0.002	B
Iron (CAS No. Not Applicable)	600*	A
Remark: * Also see "Iron and Manganese."		
Iron and Manganese (CAS No. Not Applicable)	1,000*	A
Remark: * Applies to the sum of these substances.		
Isodrin (465-73-6)	5	C
Isophorone (78-59-1)	50	B
Isopropalin (33820-53-0)	5	C

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
Isopropylbenzene (98-82-8)	5	C
2-Isopropyltoluene (527-84-4)	5	C
3-Isopropyltoluene (535-77-3)	5	C
4-Isopropyltoluene (99-87-6)	5	C
Kepone (143-50-0)	ND	A
Lead (CAS No. Not Applicable)	50	A
Magnesium (CAS No. Not Applicable)	35,000	B
Malathion (121-75-5)	7.0	A
Mancozeb (8018-01-7)	1.8	A
Maneb (12427-38-2)	1.8	A
Manganese (CAS No. Not Applicable)	600*	A
Remark: * Also see "Iron and Manganese."		
Mercaptobenzothiazole (149-30-4)	50	B
Mercury (CAS No. Not Applicable)	1.4	A
Methacrylic acid (79-41-4)	50	B
Methacrylonitrile (126-98-7)	5	C
Methomyl (16752-77-5)	*	
Remark: * See "Aldicarb and Methomyl."		
Methoxychlor (72-43-5)	35	A
(1-Methoxyethyl) benzene (4013-34-7)	50	B
(2-Methoxyethyl) benzene (3558-60-9)	50	B
N-Methylaniline (100-61-8)	5	C
Methylbenz(a)anthracenes (CAS No. Not Applicable)	0.002*	B
Remark: * Applies to the sum of these substances.		
Methyl chloride (74-87-3)	5	C
2-Methyl-4-chlorophenoxyacetic acid (94-74-6)	0.44	A
4,4'-Methylene-bis-(2-chloroaniline) (101-14-4)	5	C

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
4,4'-Methylene-bis-(N-methyl)aniline (1807-55-2)	5	C
4,4'-Methylene-bis-(N,N'-dimethyl) aniline (101-61-1)	5	C
Methylene bithiocyanate (6317-18-6)	50	B
Methylene chloride (dichloromethane) (75-09-2)	5	A
4-(1-Methylethoxy)-1-butanol (31600-69-8)	50	B
2-Methylethyl-1,3-dioxolane (126-39-6)	50	B
Methyl ethyl ketone (78-93-3)	50	B
Methyl iodide (74-88-4)	5	C
Methyl methacrylate (80-62-6)	50	A
Methyl parathion (298-00-0)	*	
Remark: * See "Parathion and Methyl parathion."		
alpha-Methylstyrene (98-83-9)	5	C
2-Methylstyrene (611-15-4)	5	C
3-Methylstyrene (100-80-1)	5	C
4-Methylstyrene (622-97-9)	5	C
Metribuzin (21087-64-9)	50	C
Mirex (2385-85-5)	0.03	A
Nabam (142-59-6)	1.8	A
Naphthalene (91-20-3)	10	B
Niacinamide (98-92-0)	500	B
Nickel (CAS No. Not Applicable)	200	A
Nitralin (4726-14-1)	35	A
Nitrate (expressed as N) (CAS No. Not Applicable)	20,000	A
Nitrate and Nitrite (expressed as N) (CAS No. Not Applicable)	20,000	A
Nitrilotriacetic acid (CAS No. Not Applicable)	3*	A
Remark: * Includes related forms that convert to nitrilotriacetic acid upon acidification to a pH of 2.3 or less."		
Nitrite (expressed as N) (CAS No. Not Applicable)	2,000	A

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
2-Nitroaniline (88-74-4)	5	C
3-Nitroaniline (99-09-2)	5	C
4-Nitroaniline (100-01-6)	5	C
Nitrobenzene (98-95-3)	0.4	A
Nitrogen, total (expressed as N) (CAS No. Not Applicable)	10,000*	A
Remark: * Applies only in the counties of Nassau and Suffolk.		
N-Nitrosodiphenylamine (86-30-6)	50	B
2-Nitrotoluene (88-72-2)	5	C
3-Nitrotoluene (99-08-1)	5	C
4-Nitrotoluene (99-99-0)	5	C
5-Nitro-o-toluidine (99-55-8)	5	C
Octachlorostyrene (29082-74-4)	0.2	A
Oil and Grease (CAS No. Not Applicable)	15,000*	A
Remark: * Applies to the sum of oil and grease.		
Organic substances, total (CAS No. Not Applicable)	100*	
Remark: * This value applies to the total of all organic substances listed in this Table with a groundwater effluent limitation less than 100 ug/L. Included in the total are all organic substances covered by the principal organic contaminant value and those in other "group" entries, whether or not the substances are individually listed in this Table.		
Oxamyl (23135-22-0)	50	C
Paraquat (4685-14-7)	3.0	A
Parathion (56-38-2)	*	
Remark: * See "Parathion and Methyl parathion."		
Parathion and Methyl parathion (56-38-2; 298-00-0)	1.5*	A
Remark: * Applies to the sum of these substances.		
Pendimethalin (40487-42-1)	5	C
Pentachlorobenzene (608-93-5)	5	C
Pentachloroethane (76-01-7)	5	C

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
Pentachloronitrobenzene (82-68-8)	ND	A
Pentachlorophenol (87-86-5)	*	
Remark: * See "Phenolic compounds (total phenols)."		
pH (CAS No. Not Applicable)	*	A
Remark: * pH shall not be lower than 6.5 or the pH of the natural groundwater, whichever is lower, nor shall be greater than 8.5 or the pH of the natural groundwater, whichever is greater.		
Phenanthrene (85-01-8)	50	B
Phenol (108-95-2)	*	
Remark: * See "Phenolic compounds (total phenols)."		
Phenolic compounds (total phenols) (CAS No. Not Applicable)	2*	A
Remark: * Applies to the sum of these substances.		
Phenols, total chlorinated (CAS No. Not Applicable)	*	
Remark: * See "Phenolic compounds (total phenols)."		
Phenols, total unchlorinated (CAS No. Not Applicable)	*	
Remark: * See "Phenolic compounds (total phenols)."		
1,2-Phenylenediamine (95-54-5)	5	C
1,3-Phenylenediamine (108-45-2)	5	C
1,4-Phenylenediamine (106-50-3)	5	C
Phenyl ether (101-84-8)	10	B
Phenylhydrazine (100-63-0)	5	C
Phenylpropanolamine (14838-15-4)	50	B
3-Phenyl-1-propene (637-50-3)	5	C
cis-1-Phenyl-1-propene (766-90-5)	5	C
trans-1-Phenyl-1-propene (873-66-5)	5	C
Phorate (298-02-2)	*	
Remark: * See "Phorate and Disulfoton."		

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
Phorate and Disulfoton (298-02-2; 298-04-4) Remark: * Applies to the sum of these substances.	ND*	A
Picloram (CAS No. Not Applicable) Remark: * Includes: related forms that convert to the organic acid upon acidification to a pH of 2 or less; and esters of the organic acid.	50*	C
Polybrominated biphenyls (CAS No. Not Applicable) Remark: * Applies to each congener individually.	5*	C
Polychlorinated biphenyls (CAS No. Not Applicable) Remark: * Applies to the sum of these substances.	0.09*	A
Principal organic contaminant (CAS No. Not Applicable) Remark: * Applies to each individual substance to which the principal organic contaminant (POC) class GA ambient groundwater standard applies (whether listed in this TOGS or not) <u>except</u> for those substances with a groundwater effluent limitation other than 5 ug/L listed in this Table. For the convenience of the reader, the groundwater effluent limitations of 5 ug/L for <u>some</u> (but not all) individual POCs are listed in this Table.	5*	C
Prometon (1610-18-0)	50	C
Propachlor (1918-16-7)	35	A
Propanil (709-98-8)	7.0	A
Propazine (139-40-2)	16	A
Propham (122-42-9)	50	C
n-Propylbenzene (103-65-1)	5	C
Pyrene (129-00-0)	50	B
Pyridine (110-86-1)	50	B
Radium 226 (CAS No. Not Applicable) Remark: * Established through Radiation Control Permits, Part 380.	*	
Radium 226 and Radium 228 (CAS No. Not Applicable) Remark: * Established through Radiation Control Permits, Part 380.	*	
Radium 228 (CAS No. Not Applicable) Remark: * Established through Radiation Control Permits, Part 380.	*	

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
Selenium (CAS No. Not Applicable)	20	A
Silver (CAS No. Not Applicable)	100	A
Simazine (122-34-9)	0.5	A
Sodium (CAS No. Not Applicable)	*	D
Remark: * Case-by-case evaluation.		
Styrene (100-42-5)	930	A
Sulfate (CAS No. Not Applicable)	500,000	A
Sulfide (CAS No. Not Applicable)	1,000	A
Tebuthiuron (34014-18-1)	50	C
Terbacil (5902-51-2)	50	C
Terbufos (13071-79-9)	0.09	B
Tetrachlorobenzenes (634-66-2; 634-90-2; 95-94-3; 12408-10-5)	*	*
Remark: * Value of 5 ug/L, Category C applies to each tetrachlorobenzene individually. Value of 10 ug/L, Category B applies to the sum of these substances.		
1,1,1,2-Tetrachloroethane (630-20-6)	5	C
1,1,2,2-Tetrachloroethane (79-34-5)	5	C
Tetrachloroethene (127-18-4)	5	C
Tetrachloroterephthalic acid (2136-79-0)	50	C
alpha, alpha, alpha, 4-Tetrachlorotoluene (5216-25-1)	5	C
Tetrahydrofuran (109-99-9)	50	B
1,2,3,4-Tetramethylbenzene (488-23-3)	5	C
1,2,3,5-Tetramethylbenzene (527-53-7)	5	C
1,2,4,5-Tetramethylbenzene (95-93-2)	5	C
Thallium (CAS No. Not Applicable)	0.5	B
Theophylline (58-55-9)	40	B
Thiram (137-26-8)	1.8	A
Toluene (108-88-3)	5	C

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
Toluene-2,4-diamine (95-80-7)	5	C
Toluene-2,5-diamine (95-70-5)	5	C
Toluene-2,6-diamine (823-40-5)	5	C
o-Toluidine (95-53-4)	5	C
Tolyltriazole (29385-43-1)	50	B
Toxaphene (8001-35-2)	0.06	A
1,2,4-Tribromobenzene (615-54-3)	5	C
Tributyltin oxide (56-35-9)	50	B
2,4,6-Trichloroaniline (634-93-5)	5	C
Trichlorobenzenes (87-61-6; 120-82-1; 108-70-3; 12002-48-1)	*	*
Remark: * Value of 5 ug/L, Category C applies to each trichlorobenzene individually. Value of 10 ug/L, Category B applies to the sum of these substances.		
1,1,1-Trichloroethane (71-55-6)	5	C
1,1,2-Trichloroethane (79-00-5)	1	A
Trichloroethene (79-01-6)	5	A
Trichlorofluoromethane (75-69-4)	5	C
2,4,5-Trichlorophenoxyacetic acid (93-76-5)	35	A
2,4,5-Trichlorophenoxypropionic acid (93-72-1)	0.26	A
1,1,2-Trichloropropane (598-77-6)	5	C
1,2,3-Trichloropropane (96-18-4)	0.04	A
cis-1,2,3-Trichloropropene (13116-57-9)	5	C
trans-1,2,3-Trichloropropene (13116-58-0)	5	C
alpha,2,4-Trichlorotoluene (94-99-5)	5	C
alpha,2,6-Trichlorotoluene (2014-83-7)	5	C
alpha,3,4-Trichlorotoluene (102-47-6)	5	C
alpha,alpha,2-Trichlorotoluene (88-66-4)	5	C
alpha,alpha,4-Trichlorotoluene (13940-94-8)	5	C

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
2,3,4-Trichlorotoluene (7359-72-0)	5	C
2,3,5-Trichlorotoluene (56961-86-5)	5	C
2,3,6-Trichlorotoluene (2077-46-5)	5	C
2,4,5-Trichlorotoluene (6639-30-1)	5	C
2,4,6-Trichlorotoluene (23749-65-7)	5	C
1,1,1-Trichloro-2,2,2-trifluoroethane (354-58-5)	5	C
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	5	C
Trifluralin (1582-09-8)	35	A
1,2,3-Trimethylbenzene (526-73-8)	5	C
1,2,4-Trimethylbenzene (95-63-6)	5	C
1,3,5-Trimethylbenzene (108-67-8)	5	C
2,3,6-Trimethylpyridine (1462-84-6)	50	B
2,4,6-Trimethylpyridine (108-75-8)	50	B
sym-Trinitrobenzene (99-35-4)	5	C
2,3,4-Trinitrotoluene (602-29-9)	5	C
2,3,6-Trinitrotoluene (18292-97-2)	5	C
2,4,5-Trinitrotoluene (610-25-3)	5	C
2,4,6-Trinitrotoluene (118-96-7)	5	C
3,4,5-Trinitrotoluene (603-15-6)	5	C
Triphenyl phosphate (115-86-6)	50	B
Uranyl ion (CAS No. Not Applicable)	10,000	C
Vinyl chloride (75-01-4)	2	A
1,2-Xylene (95-47-6)	5	C
1,3-Xylene (108-38-3)	5	C
1,4-Xylene (106-42-3)	5	C
Zinc (CAS No. Not Applicable)	5,000	A
Zineb (12122-67-7)	1.8	A
Ziram (137-30-4)	4.2	A

INDEX OF TOGS 1.1.1 TABLE 1, 3 AND 5 ENTRIES BY CHEMICAL ABSTRACTS SERVICE REGISTRY (CAS) NUMBER

JUNE 1998

- Notes: 1. This index refers to the user to Table 1, 3 or 5 of this TOGS. Entries within each Table are listed alphabetically. As this index indicates, a few entries are listed in both Tables 1 and 3. Substances in Table 1 with an ambient groundwater value also have a groundwater effluent limitation and are thus also listed in Table 5. The user is cautioned that not all substances included in "group" entries are individually listed in this index, and should read the text of Parts I and II of this TOGS.
2. Where an entry includes multiple substances, underlining identifies the specific substances that corresponds to the CAS number listed. Entries having no CAS number are indicated by "NA" (not applicable).
3. CAS numbers that represent groups of substances, including pairs of cis- and trans- isomers, may not be included in this index. The user may need to determine individual substances and CAS numbers.
4. Where entries in this index are separated by a semicolon, the table listings are also so separated and apply to the entry before and after the semicolon, respectively.

CAS Number	Entry	Table
NA	Alkyl diphenyl oxide sulfonates	1,5
NA	Aluminum, ionic; Aluminum	1;5
NA	Aminomethylene phosphonic acid salts	1,5
NA	Ammonia and <u>Ammonium</u>	1,5
NA	Antimony	1,5
NA	Arsenic	1,5
NA	Aryltriazoles	1,5
NA	Asbestos	1,5
NA	Barium	1,5
NA	Beryllium	1,5
NA	Boric acid, Borates and Metaborates	1,5
NA	Boron	1,5
NA	Bromide	1,5
NA	Butyl isopropyl phthalate	1,5
NA	Cadmium	1,5
NA	Chloramben	1,5
NA	Chloride	1,5
NA	Chlorinated dibenzo-p-dioxins and Chlorinated dibenzofurans	1,5

**INDEX OF TOGS 1.1.1 TABLE 1, 3 AND 5 ENTRIES BY
CHEMICAL ABSTRACTS SERVICE REGISTRY (CAS) NUMBER
JUNE 1998
(Continued)**

CAS Number	Entry	Table
NA	Chlorine, Total Residual	1
NA	Chromium	1,5
NA	Chromium (hexavalent)	1,5
NA	Cobalt	1
NA	Copper	1,5
NA	Cyanide	1,5
NA	Dalapon	1,5
NA	Dissolved solids, total	5
NA	Fluoride	1,5
NA	Foaming agents	1,5
NA	Gross alpha radiation	1,5
NA	Gross beta radiation	1,5
NA	Iron; <u>Iron</u> and Manganese	1,5;1,5
NA	Isothiazolones, total; Isothiazolones	1;3
NA	Lead	1,5
NA	Linear alkylbenzene sulfonates (LAS)	1,3
NA	Magnesium	1,5
NA	Manganese; Iron and <u>Manganese</u>	1,5;1,5
NA	Mercury	1,5
NA	Methylbenz(a)anthracenes	1,5
NA	Nickel	1,5
NA	Nitrate (expressed as N); <u>Nitrate</u> and Nitrite (expressed as N)	1,5;1,5
NA	Nitrilotriacetic acid	1,5
NA	Nitrite (expressed as N); Nitrate and <u>Nitrite</u> (expressed as N)	1,5;1,5
NA	Nitrogen, total (expressed as N)	5
NA	Oil and Grease	5
NA	Organic substances, total	5
NA	pH	5
NA	Phenolic compounds (total phenols)	1,5

**INDEX OF TOGS 1.1.1 TABLE 1, 3 AND 5 ENTRIES BY
CHEMICAL ABSTRACTS SERVICE REGISTRY (CAS) NUMBER
JUNE 1998
(Continued)**

CAS Number	Entry	Table
NA	Phenols, total chlorinated	1,5
NA	Phenols, total unchlorinated	1,5
NA	Phosphorus	1
NA	Picloram	1,5
NA	Polybrominated biphenyls	1,5
NA	Polychlorinated biphenyls	1,5
NA	Principal organic contaminant	1,5
NA	Quaternary ammonium compounds	1,3
NA	Radium 226; <u>Radium 226</u> and Radium 228	1,5;1,5
NA	Radium 228; Radium 226 and <u>Radium 228</u>	1,5;1,5
NA	Selenium	1,5
NA	Silver	1,5
NA	Sodium	1,5
NA	Strontium 90	1
NA	Sulfate	1,5
NA	Sulfides, total; Sulfide	1;5
NA	Sulfite	1
NA	Thallium	1,5
NA	Tritium	1
NA	Uranyl ion	1,5
NA	Vanadium	1
NA	Zinc	1,5
50-00-0	Formaldehyde	3
50-29-3	p,p'-DDT	1,5
50-32-8	Benzo(a)pyrene	1,5
50-55-5	Reserpine	3
51-28-5	2,4-Dinitrophenol	1,5
52-51-7	Bronopol	3
52-85-7	Famphur	3

**INDEX OF TOGS 1.1.1 TABLE 1, 3 AND 5 ENTRIES BY
CHEMICAL ABSTRACTS SERVICE REGISTRY (CAS) NUMBER
JUNE 1998
(Continued)**

CAS Number	Entry	Table
53-96-3	2-Acetylaminofluorene	3
55-18-5	N-Nitrosodiethylamine	3
55-70-3	Dibenz(a,h)anthracene	3
56-23-5	Carbon tetrachloride	1,5
56-35-9	Tributyltin oxide	1,5
56-38-2	Parathion; <u>Parathion</u> & Methyl parathion	1;1,5
56-49-5	3-Methylcholanthrene	3
56-55-3	Benz(a)anthracene	1,5
56-57-5	4-Nitroquinoline-1-oxide	3
57-14-7	1,1-Dimethylhydrazine	3
57-24-9	Strychnine	3
57-74-9	Chlordane	1,5
57-97-6	7, 12-Dimethylbenz(a)anthracene	3
58-55-6	Propylene glycol	3
58-55-9	Theophylline	1,5
58-89-9	gamma-Hexachlorocyclohexane	1,5
59-87-0	Nitrofurazone	3
59-89-2	N-Nitrosomorpholine	3
60-11-7	4-(Dimethylamino)azobenzene	3
60-29-7	Ethyl ether	3
60-51-5	Dimethoate	3
60-57-1	Aldrin and <u>Dieldrin</u> ; Dieldrin	1;1,5
62-44-2	Phenacetin	3
62-50-0	Ethyl methane sulfonate	3
62-53-3	Aniline	1,5
62-56-6	Thiourea	3
62-75-9	N-Nitrosodimethylamine	3
63-25-2	Carbaryl	1,5
64-18-6	Formic acid	3

**INDEX OF TOGS 1.1.1 TABLE 1, 3 AND 5 ENTRIES BY
CHEMICAL ABSTRACTS SERVICE REGISTRY (CAS) NUMBER
JUNE 1998
(Continued)**

CAS Number	Entry	Table
65-85-0	Benzoic acid	3
66-27-3	Methylmethanesulfonate	3
67-20-9	Nitrofurantoin	3
67-45-8	Furazolidone	3
67-56-1	Methanol	3
67-63-0	Isopropyl alcohol	3
67-64-1	Acetone	1,5
67-66-3	Chloroform	1,5
67-72-1	Hexachloroethane	1,5
68-12-2	Dimethylformamide	1,5
70-30-4	Hexachlorophene	1,5
70-55-3	4-Methyl benzene sulfonamide	3
71-23-8	1-Propanol	3
71-36-3	1-Butanol	3
71-43-2	Benzene	1,5
71-55-6	1,1,1-Trichloroethane	1,5
72-20-8	Endrin	1,5
72-43-5	Methoxychlor	1,5
72-54-8	p,p'-DDD	1,5
72-55-9	p,p'-DDE	1,5
74-11-3	4-Chlorobenzoic acid	3
74-83-9	Bromomethane	1,5
74-87-3	Methyl chloride	1,5
74-88-4	Methyl iodide	1,5
74-89-5	Methylamine	3
74-95-3	Dibromomethane	1,5
74-97-5	Bromochloromethane	1,5
75-00-3	Chloroethane	1,5
75-01-4	Vinyl chloride	1,5

**INDEX OF TOGS 1.1.1 TABLE 1, 3 AND 5 ENTRIES BY
CHEMICAL ABSTRACTS SERVICE REGISTRY (CAS) NUMBER
JUNE 1998
(Continued)**

CAS Number	Entry	Table
75-05-8	Acetonitrile	3
75-09-2	Methylene chloride	1,5
75-15-0	Carbon disulfide	3
75-21-8	Ethylene oxide	1,5
75-25-2	Bromoform	1,5
75-27-4	Bromodichloromethane	1,5
75-31-0	Isopropylamine	3
75-34-3	1,1-Dichloroethane	1,5
75-35-4	1,1-Dichloroethene	1,5
75-43-4	Dichlorofluoromethane	1,5
75-56-9	Propylene oxide	3
75-60-5	Cacodylic acid	3
75-65-0	tert-Butyl alcohol	3
75-69-4	Trichlorofluoromethane	1,5
75-71-8	Dichlorodifluoromethane	1,5
75-86-5	Acetone cyanohydrin	3
75-87-6	Chloral	3
76-01-7	Pentachloroethane	1,5
76-03-9	Trichloroacetic acid	3
76-12-0	1,2-Difluoro-1,1,2,2-tetrachloroethane	1,5
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1,5
76-44-8	Heptachlor	1,5
77-47-4	Hexachlorocyclopentadiene	1,5
77-58-7	Dibutyltin dilaurate	3
77-73-6	Dicyclopentadiene	3
78-00-2	Tetraethyl lead	3
78-59-1	Isophorone	1,5
78-83-1	Isobutyl alcohol	3
78-87-5	1,2-Dichloropropane	1,5

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CAS Number	Entry	Table
78-93-3	Methyl ethyl ketone	1,5
78-99-9	1,1-Dichloropropane	1,5
79-00-5	1,1,2-Trichloroethane	1,5
79-01-6	Trichloroethene	1,5
79-06-1	Acrylamide	1,5
79-10-7	Acrylic acid	1,5
79-11-8	Chloroacetic acid	3
79-20-9	Methyl acetate	3
79-34-5	1,1,2,2-Tetrachloroethane	1,5
79-39-0	Methacrylamide	3
79-41-4	Methacrylic acid	1,5
79-43-6	Dichloroacetic acid	3
79-45-8	Dimethyldithiocarbamate	3
79-46-9	2-Nitropropane	3
80-15-9	Isopropylbenzene hydroperoxide	3
80-62-6	Methyl methacrylate	1,5
81-81-2	Warfarin	3
82-68-8	Pentachloronitrobenzene	1,5
83-32-9	Acenaphthene	1,5
83-79-4	Rotenone	3
84-66-2	Diethyl phthalate	1,5
84-74-2	Di-n-butylphthalate	1,5
85-00-7	See 2764-72-9	
85-01-8	Phenanthrene	1,5
85-44-9	1,3-Isobenzofurandione	3
85-68-7	Butyl benzyl phthalate	1,5
86-30-6	N-Nitrosodiphenylamine	1,5
86-50-0	Azinphosmethyl	1,5
86-73-7	Fluorene	1,5

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CAS Number	Entry	Table
86-74-8	Carbazole	3
87-41-2	1(3H)-Isobenzofuranone	3
87-59-2	2,3-Dimethylaniline	1,5
87-61-6	Trichlorobenzenes (1,2,3-)	1,5
87-62-7	2,6-Dimethylaniline	1,5
87-68-3	Hexachlorobutadiene	1,5
87-86-5	Pentachlorophenol	1,5
88-19-7	2-Methyl benzene sulfonamide	3
88-66-4	alpha, alpha,2-Trichlorotoluene	1,5
88-72-2	2-Nitrotoluene	1,5
88-73-3	2-Chloronitrobenzene	1,5
88-74-4	2-Nitroaniline	1,5
88-85-7	Dinoseb	1,5
91-20-3	Naphthalene	1,5
91-22-5	Quinoline	3
91-57-6	2-Methylnaphthalene	1,3
91-58-7	2-Chloronaphthalene	1,5
91-59-8	2-Napthylamine	3
91-80-5	Methapyrilene	3
91-94-1	3,3'-Dichlorobenzidine	1,5
92-52-4	1,1'-Biphenyl	1,5
92-67-1	4-Aminobiphenyl	1,5
92-87-5	Benzidine	1,5
93-14-1	Guaifenesin	1,5
93-65-2	2-(4-Chloro-2-methylphenoxy)propionic acid	3
93-72-1	2,4,5-Trichlorophenoxypropionic acid	1,5
93-76-5	2,4,5-Trichlorophenoxyacetic acid	1,5
94-59-7	Safrole	3
94-74-6	2-Methyl-4-chlorophenoxyacetic acid	1,5

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CAS Number	Entry	Table
94-75-7	2,4-Dichlorophenoxyacetic acid	1,5
94-81-5	4-(4-Chloro-2-methylphenoxy)butyric acid	3
94-82-6	2,4-DB	3
94-99-5	alpha,2,4-Trichlorotoluene	1,5
95-47-6	1,2-Xylene	1,5
95-49-8	2-Chlorotoluene	1,5
95-50-1	Dichlorobenzenes (1,2-)	1,5
95-51-2	2-Chloroaniline	1,5
95-53-4	o-Toluidine	1,5
95-54-5	1,2-Phenylenediamine	1,5
95-63-6	1,2,4-Trimethylbenzene	1,5
95-64-7	3,4-Dimethylaniline	1,5
95-68-1	2,4-Dimethylaniline	1,5
95-69-2	4-Chloro-o-toluidine	1,5
95-70-5	Toluene-2,5-diamine	1,5
95-73-8	2,4-Dichlorotoluene	1,5
95-75-0	3,4-Dichlorotoluene	1,5
95-78-3	2,5-Dimethylaniline	1,5
95-79-4	5-Chloro-o-toluidine	1,5
95-80-7	Toluene-2,4-diamine	1,5
95-84-1	Aminocresols (2-Amino-para-cresol)	1,5
95-93-2	1,2,4,5-Tetramethylbenzene	1,5
95-94-3	Tetrachlorobenzenes (1,2,4,5-)	1,5
96-12-8	1,2-Dibromo-3-chloropropane	1,5
96-18-4	1,2,3-Trichloropropane	1,5
96-19-5	See 13116-57-9 and 13116-58-0	
96-33-3	Methylacrylate	3
96-37-7	Methylcyclopentane	3
96-45-7	Ethylenethiourea	1,5

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CAS Number	Entry	Table
97-63-2	Ethyl methacrylate	3
98-01-1	Furfural	3
98-06-6	tert-Butylbenzene	1,5
98-07-7	alpha, alpha, alpha-Trichlorotoluene	3
98-56-6	4-Chlorobenzotrifluoride	1,5
98-82-8	Isopropylbenzene	1,5
98-83-9	alpha-Methylstyrene	1,5
98-86-2	Acetophenone	3
98-87-3	alpha, alpha-Dichlorotoluene	3
98-92-0	Niacinamide	1,5
98-95-3	Nitrobenzene	1,5
99-04-7	3-Methylbenzoic acid	3
99-08-1	3-Nitrotoluene	1,5
99-09-2	3-Nitroaniline	1,5
99-35-4	sym-Trinitrobenzene	1,5
99-55-8	5-Nitro-o-toluidine	1,5
99-59-2	2-Methoxy-5-nitroaniline	3
99-62-7	1,3-Diisopropylbenzene	1,5
99-65-0	1,3-Dinitrobenzene	1,5
99-87-6	4-Isopropyltoluene	1,5
99-99-0	4-Nitrotoluene	1,5
100-00-5	4-Chloronitrobenzene	1,5
100-01-6	4-Nitroaniline	1,5
100-18-5	1,4-Diisopropylbenzene	1,5
100-37-8	2-(Diethylamino)ethanol	3
100-41-4	Ethylbenzene	1,5
100-42-5	Styrene	1,5
100-44-7	Benzyl chloride	3
100-51-6	Benzyl alcohol	3

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CAS Number	Entry	Table
100-52-7	Benzaldehyde	3
100-61-8	N-Methylaniline	1,5
100-63-0	Phenylhydrazine	1,5
100-64-1	Cyclohexanone oxime	3
100-66-3	Anisole	3
100-75-4	N-Nitrosopiperidine	3
100-80-1	3-Methylstyrene	1,5
101-14-4	4,4'-Methylene-bis-(2-chloroaniline)	1,5
101-55-3	4-Bromophenylphenylether	3
101-61-1	4,4'-Methylene-bis-(N,N'-dimethyl)aniline	1,5
101-84-8	Phenyl ether	1,5
102-47-6	alpha, 3,4-Trichlorotoluene	1,5
103-23-1	Di(2-ethylhexyl)adipate	1,5
103-33-3	Azobenzene	1,5
103-65-1	n-Propylbenzene	1,5
103-82-2	Benzeneacetic acid	3
104-51-8	n-Butylbenzene	1,5
104-87-0	4-Methylbenzaldehyde	3
105-11-3	1,4-Quinone dioxide	3
105-60-1	Caprolactam	3
105-67-9	2,4-Dimethylphenol	1,5
106-37-6	1,4-Dibromobenzene	1,5
106-42-3	1,4-Xylene	1,5
106-43-4	4-Chlorotoluene	1,5
106-46-7	Dichlorobenzenes (1,4-)	1,5
106-47-8	4-Chloroaniline	1,5
106-49-0	4-Aminotoluene	1,5
106-50-3	1,4-Phenylenediamine	1,5
106-89-8	Epichlorohydrin	3

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CAS Number	Entry	Table
106-93-4	Ethylene dibromide	1,5
107-02-8	Acrolein	1,5
107-05-1	Allyl chloride	1,5
107-06-2	1,2-Dichloroethane	1,5
107-07-3	Ethylene chlorohydrin	1,5
107-12-0	Propionitrile	3
107-13-1	Acrylonitrile	1,5
107-18-6	Allyl alcohol	3
107-21-1	Ethylene glycol	1,5
107-30-2	Chloromethyl methyl ether	1,5
108-05-4	Vinyl acetate	3
108-10-1	4-Methyl-2-pentanone	3
108-18-9	Diisopropylamine	3
108-20-3	Diisopropyl ether	3
108-31-6	Maleic anhydride	3
108-36-1	1,3-Dibromobenzene	1,5
108-38-3	1,3-Xylene	1,5
108-41-8	3-Chlorotoluene	1,5
108-42-9	3-Chloroaniline	1,5
108-44-1	3-Aminotoluene	1,5
108-45-2	1,3-Phenylenediamine	1,5
108-60-1	Bis(2-chloro-1-methylethyl)ether	1,5
108-67-8	1,3,5-Trimethylbenzene	1,5
108-69-0	3,5-Dimethylaniline	1,5
108-70-3	Trichlorobenzenes (1,3,5-)	1,5
108-75-8	2,4,6-Trimethylpyridine	1,5
108-86-1	Bromobenzene	1,5
108-88-3	Toluene	1,5
108-90-7	Chlorobenzene	1,5

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CAS Number	Entry	Table
108-91-8	Cyclohexylamine	3
108-93-0	Cyclohexanol	3
108-94-1	Cyclohexanone	3
108-95-2	Phenol	1,5
109-06-8	alpha-Picoline	3
109-69-3	1-Chlorobutane	1,5
109-77-3	Malononitrile	3
109-78-4	Ethylene cyanohydrin	3
109-86-4	2-Methoxyethanol	3
109-89-7	Diethylamine	3
109-99-9	Tetrahydrofuran	1,5
110-00-9	Furan	3
110-49-6	2-Methoxyethanol acetate	3
110-54-3	n-Hexane	3
110-57-6	trans-1,4-Dichloro-2-butene	1,5
110-75-8	2-Chloroethyl vinyl ether	3
110-80-5	2-Ethoxyethanol	3
110-82-7	Cyclohexane	3
110-83-8	Cyclohexene	3
110-86-1	Pyridine	1,5
111-15-9	2-Ethoxyethanol acetate	3
111-44-4	Bis(2-chloroethyl)ether	1,5
111-46-6	Diethylene glycol	3
111-70-6	1-Heptanol	3
111-90-0	Diethylene glycol monoethyl ether	3
111-91-1	Bis(2-chloroethoxy)methane	1,5
112-31-2	Decanal	3
112-34-5	Butoxyethoxyethanol	1,5
115-07-1	1-Propene	3

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CAS Number	Entry	Table
115-29-7	Endosulfan	1,3
115-86-6	Triphenyl phosphate	1,5
116-06-3	Aldicarb; <u>Aldicarb</u> and Methomyl	1,5
117-80-6	2,3-Dichloro-1,4-napthoquinone	3
117-81-7	Bis(2-ethylhexyl)phthalate	1,5
117-84-0	Di-n-octyl phthalate	1,5
118-69-4	2,6-Dichlorotoluene	1,5
118-74-1	Hexachlorobenzene	1,5
118-75-2	Chloranil	1,5
118-90-1	2-Methylbenzoic acid	3
118-96-7	2,4,6-Trinitrotoluene	1,5
119-90-4	3,3'-Dimethoxybenzidine	3
119-93-7	3,3'-Dimethylbenzidine	1,5
120-12-7	Anthracene	1,5
120-58-1	Isosafrole	3
120-61-6	Dimethylterephthalate	3
120-82-1	Trichlorobenzenes (1,2,4-)	1,5
120-83-2	2,4-Dichlorophenol	1,5
120-92-3	Cyclopentanone	3
121-14-2	2,4-Dinitrotoluene	1,5
121-44-8	Triethylamine	3
121-69-7	N,N-Dimethylaniline	1,5
121-73-3	3-Chloronitrobenzene	1,5
121-75-5	Malathion	1,5
121-82-4	Cyclotrimethylenetrinitramine	3
122-09-8	alpha, alpha-Dimethyl phenethylamine	1,5
122-34-9	Simazine	1,5
122-39-4	Diphenylamine	1,5
122-42-9	Propham	1,5

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CAS Number	Entry	Table
122-66-7	Diphenylhydrazines (1,2-); 1,2-Diphenylhydrazine	1,5
123-31-9	Hydroquinone	1,5
123-33-1	Maleic hydrazide	3
123-73-9	trans-2-Butenal	1,5
123-91-1	1,4-Dioxane	3
124-09-4	Hexamethylene diamine	3
124-19-6	Nonanal	3
124-40-3	Dimethylamine	3
124-48-1	Dibromochloromethane	1,5
126-39-6	2-Methylethyl-1,3-dioxolane	1,5
126-68-1	o,o,o-Triethylphosphorothioate	3
126-75-0	Demeton (-S)	1
126-98-7	Methacrylonitrile	1,5
126-99-8	Chloroprene	1,5
127-18-4	Tetrachloroethene	1,5
129-00-0	Pyrene	1,5
130-15-4	1,4-Naphthoquinone	3
131-11-3	Dimethyl phthalate	1,5
132-64-9	Dibenzofuran	3
133-06-2	Captan	1,5
133-07-3	Folpet	1,5
134-32-7	1-Naphthylamine	3
135-98-8	sec-Butylbenzene	1,5
136-25-4	Pentamate	3
137-26-8	Thiram	1,5
137-30-4	Ziram	1,5
138-86-3	1-Methyl-4-(1-methylethenyl)cyclohexene	3
139-40-2	Propazine	1,5
140-57-8	Aramite	3

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CAS Number	Entry	Table
140-88-5	Ethyl acrylate	3
141-05-9	Diethyl maleate	3
141-78-6	Ethyl acetate	3
142-28-9	1,3-Dichloropropane	1,5
142-59-6	Nabam	1,5
142-82-5	n-Heptane	3
143-07-7	Dodecanoic acid	3
143-08-8	1-Nonanol	3
143-50-0	Kepone	1,5
145-73-3	Endothall	1,5
148-18-5	Sodium diethyldithiocarbamate	3
149-30-4	Mercaptobenzothiazole	1,5
152-16-9	Octamethylpyrophosphoramine	3
156-59-2	cis-1,2-Dichloroethene	1,5
156-60-5	trans-1,2-Dichloroethene	1,5
191-24-2	Benzo(g,h,i)perylene	3
192-97-2	Benzo(e)pyrene	3
193-39-5	Indeno (1,2,3-cd)pyrene	1,5
205-99-2	Benzo(b)fluoranthene	1,5
206-44-0	Fluoranthene	1,5
207-08-9	Benzo(k)fluoranthene	1,5
208-96-8	Acenaphthylene	3
218-01-9	Chrysene	1,5
271-61-4	Benzisothiazole	1,5
297-97-2	o,o-Diethyl-o-2-pyrazinyl phosphorothioate	3
298-00-0	Parathion & <u>Methyl parathion</u>	1,5
298-02-2	<u>Phorate</u> & Disulfoton	1,5
298-03-3	Demeton (<u>-o</u>)	1
298-04-4	Phorate & <u>Disulfoton</u>	1,5

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CAS Number	Entry	Table
299-84-3	Ronnel	3
302-01-2	Hydrazine	1,3
309-00-2	Aldrin; Aldrin & Dieldrin	1,5;1
314-40-9	Bromacil	1,5
319-84-6	alpha-Hexachlorocyclohexane	1,5
319-85-7	beta-Hexachlorocyclohexane	1,5
319-86-8	delta-Hexachlorocyclohexane	1,5
328-84-7	3,4-Dichlorobenzotrifluoride	1,5
330-55-2	Linuron	3
333-41-5	Diazinon	1,5
354-58-5	1,1,1-Trichloro-2,2,2-trifluoroethane	1,5
460-35-5	3-Chloro-1,1,1-trifluoropropane	1,5
462-08-8	Aminopyridines (3-)	1,5
465-73-6	Isodrin	1,5
479-18-5	Dyphylline	1,5
488-23-3	1,2,3,4-Tetramethylbenzene	1,5
501-52-0	Benzenepropanoic acid	3
504-24-5	Aminopyridines (4-)	1,5
504-29-0	Aminopyridines (2-)	1,5
506-68-3	Cyanogen bromide	1,5
506-77-4	Cyanogen chloride	1,5
510-15-6	Chlorobenzilate	3
512-56-1	Trimethyl phosphate	3
515-30-0	alpha-Hydroxy-alpha-methylbenzeneacetic acid	3
526-73-8	1,2,3-Trimethylbenzene	1,5
527-53-7	1,2,3,5-Tetramethylbenzene	1,5
527-84-4	2-Isopropyltoluene	1,5
529-20-4	2-Methylbenzaldehyde	3

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CAS Number	Entry	Table
530-50-7	Diphenylhydrazines (1,1-); 1,1-Diphenylhydrazine	1,5
531-82-8	Furium	3
535-77-3	3-Isopropyltoluene	1,5
538-39-6	4,4'-Dimethylbibenzyl	1,5
540-73-8	1,2-Dimethylhydrazine	3
541-73-1	Dichlorobenzenes (1,3-)	1,5
542-75-6	1,3-Dichloropropene (sum of cis- and trans-)	1,5
542-88-1	Bis(chloromethyl)ether	1,5
543-49-7	2-Heptanol	3
563-12-2	Ethion	3
563-58-6	1,1-Dichloropropene	1,5
577-55-9	1,2-Diisopropylbenzene	1,5
583-53-9	1,2-Dibromobenzene	1,5
584-84-9	Toluene diisocyanate	3
589-18-4	4-Methylbenzenemethanol	3
589-38-8	3-Hexanone	3
589-55-9	4-Heptanol	3
589-82-2	3-Heptanol	3
589-93-5	2,5-Lutidine	3
591-78-6	2-Hexanone	1,5
594-18-3	Dibromodichloromethane	1,5
594-20-7	2,2-Dichloropropane	1,5
597-64-8	Tetraethyl tin	3
598-77-6	1,1,2-Trichloropropane	1,5
602-01-7	2,3-Dinitrotoluene	1,5
602-29-9	2,3,4-Trinitrotoluene	1,5
603-15-6	3,4,5-Trinitrotoluene	1,5
606-20-2	2,6-Dinitrotoluene	1,5
608-73-1	See 58-89-9; 319-84-6; 319-85-7; 319-86-8; and 6108-10-7	

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608-93-5	Pentachlorobenzene	1,5
610-25-3	2,4,5-Trinitrotoluene	1,5
610-39-9	3,4-Dinitrotoluene	1,5
611-15-4	2-Methylstyrene	1,5
613-12-7	2-Methylanthracene	3
615-54-3	1,2,4-Tribromobenzene	1,5
617-84-4	Diethyl formamide	3
617-94-7	Dimethylphenylcarbinol	3
618-85-9	3,5-Dinitrotoluene	1,5
619-15-8	2,5-Dinitrotoluene	1,5
620-23-5	3-Methylbenzaldehyde	3
621-64-7	N-Nitrosodipropylamine	3
622-97-9	4-Methylstyrene	1,5
625-86-5	2,5-Dimethylfuran	3
627-26-9	trans-2-Butenenitrile	1,5
630-20-6	1,1,1,2-Tetrachloroethane	1,5
634-66-2	Tetrachlorobenzenes (1,2,3,4-)	1,5
634-90-2	Tetrachlorobenzenes (1,2,3,5-)	1,5
634-93-5	2,4,6-Trichloroaniline	1,5
637-50-3	3-Phenyl-1-propene	1,5
643-79-8	1,2-Benzenedicarboxaldehyde	3
683-18-1	Dibutyltin chloride	3
684-93-5	N-Nitroso-N-methyl urea	3
709-98-8	Propanil	1,5
759-96-4	Ethyl di-n-propylthiocarbamate (EPTC)	3
764-41-0	See 1476-11-5 and 110-57-6	
765-34-4	Glycidaldehyde	3
766-90-5	cis-1-Phenyl-1-propene	1,5
767-58-8	2,3-Dihydro-1-methyl-1H-indene	3

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823-40-5	Toluene-2,6-diamine	1,5
834-12-8	Ametryn	1,5
873-66-5	trans-1-Phenyl-1-propene	1,5
873-94-9	3,3,5-Trimethylcyclohexanone	3
923-02-4	Methylolmethacrylamide	3
924-16-3	N-Nitrosodi-N-butylamine	3
930-55-2	N-Nitrosopyrrolidine	3
957-51-7	Diphenamid	1,5
959-98-8	Endosulfan I	3
1024-57-3	Heptachlor epoxide	1,5
1031-07-8	Endosulfan sulfate	3
1071-83-6	Glyphosate	1,5
1114-71-2	Pebulate	3
1122-60-7	Nitrocyclohexane	3
1163-19-5	Bis(pentabromophenyl)ether	3
1190-76-7	cis-2-Butenenitrile	1,5
1321-12-6	See 88-72-2; 99-08-1 and 99-99-0	
1330-20-7	See 95-47-6; 106-42-3 and 108-38-3	
1462-84-6	2,3,6-Trimethylpyridine	1,5
1476-11-5	cis-1,4-Dichloro-2-butene	1,5
1563-66-2	Carbofuran	1,5
1582-09-8	Trifluralin	1,5
1589-49-7	Propylene glycol monomethyl ether	3
1610-18-0	Prometon	1,5
1634-04-4	Methyl tert-butyl ether	3
1646-87-3	Aldicarb sulfoxide	1,5
1646-88-4	Aldicarb sulfone	1,5
1702-17-6	Clopyralid	3
1807-55-2	4,4'-Methylene-bis-(N-methyl)aniline	1,5

**INDEX OF TOGS 1.1.1 TABLE 1, 3 AND 5 ENTRIES BY
CHEMICAL ABSTRACTS SERVICE REGISTRY (CAS) NUMBER
JUNE 1998
(Continued)**

CAS Number	Entry	Table
1861-32-1	Dimethyl tetrachloroterephthalate	1,5
1861-40-1	Benefin	1,5
1863-63-4	Benzoic acid, ammonium salt	3
1875-92-9	Dimethylbenzylammonium chloride	3
1888-71-7	Hexachloropropene	1,5
1897-45-6	Chlorothalonil	1,5
1912-24-9	Atrazine	1,5
1918-00-9	Dicamba	1,5
1918-16-7	Propachlor	1,5
1929-77-7	Vernolate	3
2008-41-5	Butylate	1,5
2014-83-7	alpha, 2,6-Trichlorotoluene	1,5
2077-46-5	2,3,6-Trichlorotoluene	1,5
2104-96-3	Bromophos	3
2136-79-0	Tetrachloroterephthalic acid	1,5
2164-17-2	Fluometuron	1,5
2207-04-7	trans-1,4-Dimethyl cyclohexane	3
2212-67-1	Molinate	3
2303-16-4	Diallate	3
2303-17-5	Triallate	3
2385-85-5	Mirex	1,5
2425-06-1	Captafol	3
2439-10-3	<u>Dodecylguanidine acetate</u> and Dodecyguanidine hydrochloride	1,5
2641-56-7	Diethyltin dycaprylate	3
2764-72-9	Diquat	1,5
2809-21-4	1-Hydroxyethylidene-1,1-diphosphonic acid	1,5
2835-95-2	Aminocresols (<u>5-Amino-ortho-cresol</u>)	1,5
2835-99-6	Aminocresols (<u>4-Amino-meta-cresol</u>)	1,5
2921-88-2	Chlorpyrifos	3

**INDEX OF TOGS 1.1.1 TABLE 1, 3 AND 5 ENTRIES BY
CHEMICAL ABSTRACTS SERVICE REGISTRY (CAS) NUMBER
JUNE 1998
(Continued)**

CAS Number	Entry	Table
3252-43-5	2,2-Dibromo-3-nitrilopropionamide & <u>Dibromoacetonitrile</u> ; Dibromoacetonitrile	1,3
3558-60-9	(2-Methoxyethyl)benzene	1,5
3689-24-5	Tetraethyl dithiopyrophosphate	3
4013-34-7	(1-Methoxyethyl)benzene	1,5
4170-30-3	See 123-73-9 and 15798-64-8	
4376-18-5	Methylphthalate	3
4685-14-7	Paraquat	1,5
4726-14-1	Nitralin	1,5
4786-20-3	See 1190-76-7 and 627-26-9	
4957-14-6	4,4'-Dimethyldiphenylmethane	1,5
5131-66-8	Butoxypropanol	1,5
5197-80-8	Dimethylethylbenzylammonium chloride	3
5216-25-1	alpha, alpha, alpha, 4-Tetrachlorotoluene	1,5
5234-68-4	Carboxin	1,5
5902-51-2	Terbacil	1,5
6108-10-7	epsilon-Hexachlorocyclohexane	1,5
6317-18-6	Methylene bithiocyanate	1,5
6639-30-1	2,4,5-Trichlorotoluene	1,5
7005-72-3	4-Chlorophenyl phenyl ether	3
7359-72-0	2,3,4-Trichlorotoluene	1,5
7421-93-4	Endrin aldehyde	1,5
7486-38-6	Sodium adipate, disodium salt	3
7664-41-7	<u>Ammonia</u> and Ammonium	1,5
7783-06-4	Hydrogen sulfide	1,5
8001-35-2	Toxaphene	1,5
8018-01-7	Mancozeb	1,5
8065-48-3	Demeton	1,3
9003-27-4	Polybutene(1-propene, 2-methyl homopolymer)	3
10061-01-5	see 542-75-6	

**INDEX OF TOGS 1.1.1 TABLE 1, 3 AND 5 ENTRIES BY
CHEMICAL ABSTRACTS SERVICE REGISTRY (CAS) NUMBER
JUNE 1998
(Continued)**

CAS Number	Entry	Table
10061-02-6	see 542-75-6	
10222-01-2	<u>2,2-Dibromo-3-nitrilopropionamide</u> & Dibromoacetonitrile	1,5
10595-95-6	N-Nitrosomethylethylamine	3
12002-48-1	Trichlorobenzenes	1,5
12122-67-7	Zineb	1,5
12408-10-5	Tetrachlorobenzenes	1,5
12427-38-2	Maneb	1,5
13071-79-9	Terbufos	1,5
13116-57-9	cis-1,2,3-Trichloropropene	1,5
13116-58-0	trans-1,2,3-Trichloropropene	1,5
13560-89-9	Dechlorane Plus	1,5
13590-97-1	Dodecylguanidine acetate and <u>Dodecylguanidine hydrochloride</u>	1,5
13940-94-8	alpha, alpha, 4-Trichlorotoluene	1,5
14484-64-1	Ferbam	1,5
14838-15-4	Phenylpropanolamine	1,5
15798-64-8	cis-2-Butenal	1,5
15972-60-8	Alachlor	1,5
16655-82-6	3-Hydroxycarbofuran	3
16752-77-5	Aldicarb & <u>Methomyl</u>	1,5
17059-48-2	2,3-Dihydro-1,6-dimethyl-1H-indene	3
18292-97-2	2,3,6-Trinitrotoluene	1,5
19089-47-5	Propylene glycol monoethyl ether	3
19398-61-9	2,5-Dichlorotoluene	1,5
21087-64-9	Metribuzin	1,5
21564-17-0	2-(Thiocyanomethylthio)benzothiazole	3
21725-46-2	Cyanazine	3
23135-22-0	Oxamyl	1,5
23184-66-9	Butachlor	1,5
23749-65-7	2,4,6-Trichlorotoluene	1,5

**INDEX OF TOGS 1.1.1 TABLE 1, 3 AND 5 ENTRIES BY
CHEMICAL ABSTRACTS SERVICE REGISTRY (CAS) NUMBER
JUNE 1998
(Continued)**

CAS Number	Entry	Table
23950-58-5	Pronamide	3
25056-70-6	Hexanate	3
25136-55-4	Dimethyldioxane	3
25154-54-5*	See 99-65-0	
25167-93-5	See 88-73-3; 100-00-5 and 121-73-3	
25168-05-2	See 95-49-8; 106-43-4 and 108-41-8	
25186-47-4	3,5-Dichlorotoluene	1,5
25265-76-3	See 95-54-5; 106-50-3 and 108-45-2	
25321-09-9	See 99-62-7; 100-18-5 and 577-55-9	
25321-14-6	See 121-14-2; 602-01-7; 606-20-2; 610-39-9; 618-85-9 and 619-15-8	
25321-22-6	See 95-50-1; 106-46-7 and 541-73-1	
25551-13-7	See 95-63-6; 108-67-8 and 526-73-8	
25973-55-1	2-(2-Hydroxy-3,5-di-tert-pentylphenyl)benzotriazole	1,5
26399-36-0	Profluralin	3
26445-05-6	Aminopyridines	1,5
26523-64-8	See 76-13-1 and 354-58-5	
27134-26-5	See 95-51-2; 106-47-8 and 108-42-9	
29082-74-4	Octachlorostyrene	1,5
29091-21-2	Prodiamine	3
29385-43-1	Tolyltriazole	1,5
29611-84-5*	See 108-75-8 and 1462-84-6	
29761-21-5	Isodecyl diphenyl phosphate	1,3
29797-40-8	See 95-73-8; 95-75-0; 118-69-4; 19398-61-9; 25186-47-4 and 32768-54-0	
30560-19-1	Acephate	3
31600-69-8	4-(1-Methylethoxy)-1-butanol	1,5
32768-54-0	2,3-Dichlorotoluene	1,5
33213-65-9	Endosulfan II	3
33820-53-0	Isopropalin	1,5
34014-18-1	Tebuthiuron	1,5

**INDEX OF TOGS 1.1.1 TABLE 1, 3 AND 5 ENTRIES BY
CHEMICAL ABSTRACTS SERVICE REGISTRY (CAS) NUMBER
JUNE 1998
(Continued)**

CAS Number	Entry	Table
35448-14-7	Oxalic acid, benzyl ester	3
37299-86-8	Rhodamine WT	3
39196-18-4	Thiofanox	3
40487-42-1	Pendimethalin	1,5
51218-45-2	Metolachlor	3
51235-04-2	Hexazinone	1,5
53494-70-5	Endrin ketone	1,5
56961-86-5	2,3,5-Trichlorotoluene	1,5
68391-01-5	Alkyl dimethyl benzyl ammonium chloride	1,5
95266-40-3	Cimectacarb	3
<p>* This non-individual CAS number also refers to one or more individual substances that are not specifically listed in the table. These individual substances, however, may be encompassed by a group entry in Table 1 (for example, Principal Organic Comtaminant or Phenolic Compounds). Refer to the text of Part I of this document for an explanation of group entries.</p>		

s/s (6/17/98)
 N.G. Kaul, P.E.
 Director
 Division of Water

APPENDIX B

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning with the start of each discharge event
and lasting until 7 days from start of discharge.
the discharges from the treatment facility to surface water shall be limited and monitored by the operator as specified below:

Outfall Number and Effluent Parameter	CAS No.	Discharge Limitations		Minimum Monitoring Requirements	
		Daily Max	Units	Measurement Frequency	Sample Type
Outfall 001 _____					
Flow	NA	Monitor	gpd	Continuous	Meter
pH (Range)	NA	6.5 to 8.5	SU	(1)	Grab
Oil and Grease	NA	15	mg/l	(1)	Grab
BOD, 5-day	NA	5	mg/l	(1)	Grab
Solids, Total Suspended	NA	10	mg/l	(1)	Grab
Solids, Total Dissolved	NA	200	mg/l	(1)	Grab
Turbidity	NA	5	NTU	(1)	Grab
Acenaphthene	83-32-9	10	ug/l	(1)	Grab
Acenaphthylene	208-96-8	10	ug/l	(1)	Grab
Acetone	67-64-1	100.0 (2)	ug/l	(1)	Grab
Acrylic Acid	79-10-7	50	ug/l	(1)	Grab
Acrylonitrile	107-13-1	0.07	ug/l	(1)	Grab
Alachlor	15972-60-8	0.3	ug/l	(1)	Grab
Aldicarb	116-06-3	8.0 (2)	ug/l	(1)	Grab
Methomyl	16752-77-5	40.0 (2)	ug/l	(1)	Grab
Aldicarb sulfone	1646-88-4	2	ug/l	(1)	Grab
Aldicarb sulfoxide	1646-87-3	4	ug/l	(1)	Grab
Aldrin	309-00-2	0.020 (2)	ug/l	(1)	Grab
Alkyl dimethyl benzyl ammonium chloride	68391-01-5	50	ug/l	(1)	Grab
Alkyl diphenyl oxide sulfonates (3)	NA	50	ug/l	(1)	Grab
Aluminum, Total	NA	100	ug/l	(1)	Grab
Ametryn	834-12-8	50	ug/l	(1)	Grab
Aminomethylene phosphonic acid salts (4)	NA	50	ug/l	(1)	Grab
Sum of Aminopyridines	NA	1	ug/l	(1)	Grab
Ammonia, Total as NH3	7664-41-7	660	ug/l	(1)	Grab
Aniline	62-53-3	10.0 (2)	ug/l	(1)	Grab
Anthracene	120-12-7	10	ug/l	(1)	Grab
Antimony, Total	NA	10.0 (2)	ug/l	(1)	Grab
Arsenic, Total	NA	36	ug/l	(1)	Grab
Aryltriazoles (3)	NA	50	ug/l	(1)	Grab
Atrazine	1912-24-9	8.0 (2)	ug/l	(1)	Grab
Azinphosmethyl	86-50-0	0.60 (2)	ug/l	(1)	Grab
Azobenzene	103-33-3	0.5	ug/l	(1)	Grab
Barium, Total	NA	1000	ug/l	(1)	Grab
Benz(a)anthracene	56-55-3	0.050 (2)	ug/l	(1)	Grab

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning with the start of each discharge event and lasting until 7 days from start of discharge, the discharges from the treatment facility to surface water shall be limited and monitored by the operator as specified below:

Outfall Number and Effluent Parameter	CAS No.	Discharge Limitations		Minimum Monitoring Requirements	
		Daily Max	Units	Measurement Frequency	Sample Type
Benzene	71-43-2	0.80 (2)	ug/l	(1)	Grab
Benzidine	92-87-5	0.30 (2)	ug/l	(1)	Grab
Benzisothiazole	271-61-4	50	ug/l	(1)	Grab
Benzo(a)anthracene	56-55-3	10	ug/l	(1)	Grab
Benzo(b)fluoranthene	205-99-2	0.070 (2)	ug/l	(1)	Grab
Benzo(k)fluoranthene	207-08-9	0.020 (2)	ug/l	(1)	Grab
Benzo(ghi) Perylene	191-24-2	10	ug/l	(1)	Grab
Benzo(a) pyrene	50-32-8	0.090 (2)	ug/l	(1)	Grab
Beryllium, Total	NA	3	ug/l	(1)	Grab
Bis(2-chloroethyl)ether	111-44-4	1.0 (2)	ug/l	(1)	Grab
Bis(2-ethyl hexyl)	117-81-7	8.0 (2)	ug/l	(1)	Grab
Boric acid, borates & Metabolates (5)	NA	125	ug/l	(1)	Grab
Boron, Total	NA	1,000	ug/l	(1)	Grab
Bromide, Total	NA	2,000	ug/l	(1)	Grab
Bromobenzene	108-86-1	5	ug/l	(1)	Grab
Bromochloromethane	74-97-5	5	ug/l	(1)	Grab
Bromodichloromethane	75-27-4	10	ug/l	(1)	Grab
Bromoform	75-25-2	10	ug/l	(1)	Grab
Bromomethane	74-83-9	5	ug/l	(1)	Grab
Butoxyethoxyethanol	112-34-5	50	ug/l	(1)	Grab
Butoxypropanol	5131-66-8	50	ug/l	(1)	Grab
Butylate	2008-41-5	50	ug/l	(1)	Grab
n-Butylbenzene	104-51-8	5	ug/l	(1)	Grab
sec-Butylbenzene	135-98-8	5	ug/l	(1)	Grab
tert-Butylbenzene	98-06-6	5	ug/l	(1)	Grab
Butyl benzyl phthalate	85-B8-7	50	ug/l	(1)	Grab
Butyl isopropyl phthalate	NA	50	ug/l	(1)	Grab
Cadmium, Total	NA	1.2	ug/l	(1)	Grab
Carbofuran	1563-66-2	10.0 (2)	ug/l	(1)	Grab
Carbon tetrachloride	56-23-5	0.50 (2)	ug/l	(1)	Grab
Carboxin	5234-68-4	50	ug/l	(1)	Grab
Chloramben (6)	NA	50	ug/l	(1)	Grab
Chlordane	57-74-9	0.060 (2)	ug/l	(1)	Grab
Chloride	NA	250,000	ug/l	(1)	Grab
2,3,7,8 -Tetrachlorodibenzo-p-dioxin	NA	0.0080 (2)	ug/l	(1)	Grab
Chlorinated dibenzo-p-dioxins and Chlorinated dibenzofurans	NA	0.0080 (2)	ug/l	(1)	Grab

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning with the start of each discharge event and lasting until 7 days from start of discharge, the discharges from the treatment facility to surface water shall be limited and monitored by the operator as specified below:

Outfall Number and Effluent Parameter	CAS No.	Discharge Limitations		Minimum Monitoring Requirements	
		Daily Max	Units	Measurement Frequency	Sample Type
Chlorine, Total Residual	NA	100.0 (2)	ug/l	(1)	Grab
Chlorobenzene	108-90-7	5	ug/l	(1)	Grab
4-Chlorobenzotrifluoride	98-56-6	5	ug/l	(1)	Grab
Chloroethane	75-00-3	5	ug/l	(1)	Grab
Chloroform	67-66-3	7	ug/l	(1)	Grab
2-Chloronaphthalene	91-58-7	10	ug/l	(1)	Grab
2-Chlorotoluene	95-49-8	5	ug/l	(1)	Grab
4-Chlorotoluene	106-43-4	5	ug/l	(1)	Grab
5-Chloro-o-toluidine	95-79-4	0.7	ug/l	(1)	Grab
Chromium, Total	NA	207	ug/l	(1)	Grab
Chromium, Hexavalent	NA	11	ug/l	(1)	Grab
Chrysene	218-01-0	0.60 (2)	ug/l	(1)	Grab
Cobalt, Total	NA	5	ug/l	(1)	Grab
Copper, Dissolved	NA	Monitor	ug/l	(1)	Grab
Copper, Total	NA	24	ug/l	(1)	Grab
Cyanide, Amenable to Chlorination	NA	60.0 (2)	ug/l	(1)	Grab
Dalapon (6)	NA	50	ug/l	(1)	Grab
4,4'-DDT	50-29-3	0.050 (2)	ug/l	(1)	Grab
4,4'-DDD	72-54-8	0.040 (2)	ug/l	(1)	Grab
4,4'-DDE	72-55-9	0.020 (2)	ug/l	(1)	Grab
Sum of Demeton	NA	0.1	ug/l	(1)	Grab
Dechlorane Plus	13560-89-9	5	ug/l	(1)	Grab
Diazinon	333-41-5	0.7	ug/l	(1)	Grab
Dibenzo(a,h)Anthracene	53-70-3	10	ug/l	(1)	Grab
Dibromochloromethane	124-48-1	10	ug/l	(1)	Grab
1,2-Dibromo-3-chloropropane	96-12-8	0.2	ug/l	(1)	Grab
Dibromodichloromethane	594-18-3	5	ug/l	(1)	Grab
Dibromomethane	74-95-3	5	ug/l	(1)	Grab
2,2-Dibromo-3-nitropropionamide	10222-01-2	20	ug/l	(1)	Grab
Di-n-butyl phthalate	84-74-2	50	ug/l	(1)	Grab
1,2-Dichlorobenzene	95-50-1	See sum of dichlorobenzenes			
1,4-Dichlorobenzene	106-46-7	See sum of dichlorobenzenes			
1,3-Dichlorobenzene	541-73-1	See sum of dichlorobenzenes			
Sum of Dichlorobenzenes	NA	5	ug/l	(1)	Grab
4-Dichlorobenzotrifluoride	328-84-7	5	ug/l	(1)	Grab
Dichlorodifluoromethane	75-71-8	5	ug/l	(1)	Grab
1,1-Dichloroethane	75-34-3	5	ug/l	(1)	Grab

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning with the start of each discharge event and lasting until 7 days from start of discharge, the discharges from the treatment facility to surface water shall be limited and monitored by the operator as specified below:

Outfall Number and Effluent Parameter	CAS No.	Discharge Limitations		Minimum Monitoring Requirements	
		Daily Max	Units	Measurement Frequency	Sample Type
1,2-Dichloroethane	107-06-2	0.8	ug/l	(1)	Grab
cis-1,2-Dichloroethylene	156-59-2	5	ug/l	(1)	Grab
trans-1,2-Dichloroethylene	156-60-5	5	ug/l	(1)	Grab
1,1-Dichloroethylene	75-35-4	0.50 (2)	ug/l	(1)	Grab
Dichlorofluoromethane	75-43-4	5	ug/l	(1)	Grab
2,4-Dichlorophenol	120-83-2	2.0 (2)	ug/l	(1)	Grab
2,4-Dichlorophenoxyacetic acid	94-75-7	10	ug/l	(1)	Grab
1,2-Dichloropropane	78-87-5	0.5	ug/l	(1)	Grab
1,1-Dichloropropane	78-99-9	5	ug/l	(1)	Grab
1,3-Dichloropropane	142-28-9	5	ug/l	(1)	Grab
1,2-Dichloropropane	594-20-7	5	ug/l	(1)	Grab
1,1-Dichloropropene	563-58-6	5	ug/l	(1)	Grab
cis-1,3-Dichloropropene	10061-01-5	5	ug/l	(1)	Grab
trans-1,3-Dichloropropene	10061-02-6	5	ug/l	(1)	Grab
2,3-Dichlorotoluene	32768-54-0	5	ug/l	(1)	Grab
2,4-Dichlorotoluene	95-73-8	5	ug/l	(1)	Grab
2,5-Dichlorotoluene	19398-61-9	5	ug/l	(1)	Grab
2,6-Dichlorotoluene	118-69-4	5	ug/l	(1)	Grab
3,4-Dichlorotoluene	95-75-0	5	ug/l	(1)	Grab
3,5-Dichlorotoluene	25186-47-4	5	ug/l	(1)	Grab
Dieldrin	60-57-1	0.0080 (2)	ug/l	(1)	Grab
Di(2-ethylhexyl)adipate	103-23-1	50	ug/l	(1)	Grab
Diethyl phthalate	84-66-2	50	ug/l	(1)	Grab
N,N-Dimethyl aniline	121-69-7	1	ug/l	(1)	Grab
Dimethylformamide	68-12-2	50	ug/l	(1)	Grab
Dimethyl phthalate	131-11-3	50	ug/l	(1)	Grab
Dimethyl tetrachloroterephthalate	1861-32-1	50	ug/l	(1)	Grab
2, 6-Dinitrotoluene	606-20-2	0.080 (2)	ug/l	(1)	Grab
Di-n-octyl phthalate	117-84-0	50	ug/l	(1)	Grab
Diphenamid	957-51-7	50	ug/l	(1)	Grab
1,2-Diphenylhydrazine	122-66-7	0.05	ug/l	(1)	Grab
Diquat dibromide	85-00-7	20	ug/l	(1)	Grab
Dodecylguanidine acetate	2439-10-3	See Sum of Dodecylguanidine acetate and Dodecylguanidine hydrochloride			
Dodecylguanidine hydrochloride	13590-97-1	See Sum of Dodecylguanidine acetate and Dodecylguanidine hydrochloride			
Sum of Dodecylguanidine acetate and Dodecylguanidine hydrochloride	NA	50	ug/l	(1)	Grab
Dyphylline	479-18-5	50	ug/l	(1)	Grab

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning with the start of each discharge event
and lasting until 7 days from start of discharge.

the discharges from the treatment facility to surface water shall be limited and monitored by the operator as
specified below:

Outfall Number and Effluent Parameter	CAS No.	Discharge Limitations		Minimum Monitoring Requirements	
		Daily Max	Units	Measurement Frequency	Sample Type
Endosulfan	115-73-3	0.020 (2)	ug/l	(1)	Grab
Endothall	145-73-3	50	ug/l	(1)	Grab
Endrin	72-20-8	0.020 (2)	ug/l	(1)	Grab
Ethylbenzene	100-41-4	5	ug/l	(1)	Grab
Ethylene chlorohydrin	107-07-3	50	ug/l	(1)	Grab
Ethylene dibromide	106-93-4	0.05	ug/l	(1)	Grab
Ethylene glycol	107-21-1	50	ug/l	(1)	Grab
Ethylene oxide	75-21-8	0.05	ug/l	(1)	Grab
Fluometuron	2164-17-2	50	ug/l	(1)	Grab
Fluoranthene	206-44-0	10	ug/l	(1)	Grab
Fluorene	86-73-7	10	ug/l	(1)	Grab
Fluoride	NA	2000	ug/l	(1)	Grab
Glyphosate	1071-83-6	50	ug/l	(1)	Grab
Guafenesin	93-14-1	50	ug/l	(1)	Grab
Heptachlor	76-44-8	0.010 (2)	ug/l	(1)	Grab
Heptachlor epoxide	1024-74-3	0.30 (2)	ug/l	(1)	Grab
Hexachlorobenzene	118-74-1	0.20 (2)	ug/l	(1)	Grab
Hexachlorobutadiene	87-68-3	1.0 (2)	ug/l	(1)	Grab
α -Hexachlorocyclohexane(α -BHC)	319-84-6	0.010 (2)	ug/l	(1)	Grab
β -Hexachlorocyclohexane(β -BHC)	319-85-7	0.020 (2)	ug/l	(1)	Grab
δ -Hexachlorocyclohexane(δ -BHC)	319-86-8	0.040 (2)	ug/l	(1)	Grab
Γ -Hexachlorocyclohexane(Lindane)	58-89-9	0.020 (2)	ug/l	(1)	Grab
Hexachlorocyclopentadiene	77-47-4	2.0 (2)	ug/l	(1)	Grab
2-Hexanone	591-78-6	50	ug/l	(1)	Grab
Hexazinone	51235-04-2	50	ug/l	(1)	Grab
Hydrazine	302-01-02	5	ug/l	(1)	Grab
Hydrogen sulfide	7783-06-4	2	ug/l	(1)	Grab
Hydroquinone	123-31-9	2.2	ug/l	(1)	Grab
1-Hydroxyethylidene-1,1 diphosphonic acid	2809-21-4	50	ug/l	(1)	Grab
2-(2-Hydroxy-3,5-di-tert-pentyl phenyl) benzotriazole	25973-55-1	50	ug/l	(1)	Grab
Indeno(1,2,3-cd)pyrene	193-39-5	0.20 (2)	ug/l	(1)	Grab
Iron, Total	NA	300	ug/l	(1)	Grab
Isodecyl diphenyl phosphate	29761-21-5	1.7	ug/l	(1)	Grab
Isophorone	78-59-1	10	ug/l	(1)	Grab
Isopropylbenzene	98-82-8	5	ug/l	(1)	Grab

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning with the start of each discharge event and lasting until 7 days from start of discharge, the discharges from the treatment facility to surface water shall be limited and monitored by the operator as specified below:

Outfall Number and Effluent Parameter	CAS No.	Discharge Limitations		Minimum Monitoring Requirements	
		Daily Max	Units	Measurement Frequency	Sample Type
4-Isopropyltoluene	99-87-6	5	ug/l	(1)	Grab
Total Isothiazolones	NA	1	ug/l	(1)	Grab
Lead, Total	NA	4.0 (2)	ug/l	(1)	Grab
Magnesium, Total	NA	35,000	ug/l	(1)	Grab
Malathion	121-75-5	0.6 (2)	ug/l	(1)	Grab
Manganese, Total	NA	300	ug/l	(1)	Grab
Mercaptobenzothiazole	149-30-4	50	ug/l	(1)	Grab
Mercury, Total	NA	0.8 (2)	ug/l	(1)	Grab
Methacrylic Acid	79-41-4	50	ug/l	(1)	Grab
Aelhoxychlor	72-43-5	0.4 (2)	ug/l	(1)	Grab
(2-Methoxyethyl) benzene	4013-34-7	50	ug/l	(1)	Grab
(1-Methoxyethyl)benzene	3558-60-9	50	ug/l	(1)	Grab
Sum of Methylbenz(a)anthracenes	NA	0.00 (2)	ug/l	(1)	Grab
Methyl chloride	74-87-3	5	ug/l	(1)	Grab
Methylene bistiocyanate	6317-18-6	1	ug/l	(1)	Grab
Methylene chloride	75-09-2	5	ug/l	(1)	Grab
4-(1-Methylethoxy)-1-butanol	31600-69-8	50	ug/l	(1)	Grab
2-Melhylethyl-1,3-dioxolane	126-39-6	50	ug/l	(1)	Grab
Methyl ethyl ketone	78-93-3	50	ug/l	(1)	Grab
2-Methylstyrene	611-15-4	5	ug/l	(1)	Grab
3-Methylstyrene	100-80-1	5	ug/l	(1)	Grab
Metribuzin	21087-64-9	50	ug/l	(1)	Grab
Mirex	2385-85-5	0.4 (2)	ug/l	(1)	Grab
Naphthalene	91-20-3	10	ug/l	(1)	Grab
Niacinamide	98-92-0	500	ug/l	(1)	Grab
Nickel, Total	NA	96	ug/l	(1)	Grab
Nitrate (as N)	NA	10,000	ug/l	(1)	Grab
Nitrilotriacetic acid (7)	NA	3	ug/l	(1)	Grab
Nitrite	NA	20	ug/l	(1)	Grab
Nitrobenzene	98-95-3	5	ug/l	(1)	Grab
N-Nitrosodiphenylamine	86-30-6	10	ug/l	(1)	Grab
Oxamyl(Vydate)	23135-22-0	10	ug/l	(1)	Grab
Parathion	56-38-2	0.6 (2)	ug/l	(1)	Grab
Methyl parathion	298-00-0	0.6 (2)	ug/l	(1)	Grab
Pentachlorophenol	87-86-5	2 (2)	ug/l	(1)	Grab
Phenanthrene	85-01-8	10	ug/l	(1)	Grab
Phenolic compounds (total phenols) (11)	NA	8.0 (2)	ug/l	(1)	Grab

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning with the start of each discharge event and lasting until 7 days from start of discharge, the discharges from the treatment facility to surface water shall be limited and monitored by the operator as specified below:

Outfall Number and Effluent Parameter	CAS No.	Discharge Limitations		Minimum Monitoring Requirements	
		Daily Max	Units	Measurement Frequency	Sample Type
Phenyl ether	101-84-8	10	ug/l	(1)	Grab
Phenylpropanolamine	14838-15-4	50	ug/l	(1)	Grab
cis-1-Phenyl-1-propene	766-90-5	5	ug/l	(1)	Grab
trans-1-Phenyl-1-propene	873-66-5	5	ug/l	(1)	Grab
3-Phenyl-1-propene	637-50-3	5	ug/l	(1)	Grab
Phosphorus	NA	20	ug/l	(1)	Grab
Picloram (6)	1918-02-1	50	ug/l	(1)	Grab
PCB-1016	12674-11-2	0.064	ug/l	(1)	Grab
PCB-1221	11104-28-2	0.064	ug/l	(1)	Grab
PCB-1232	11141-16-5	0.064	ug/l	(1)	Grab
PCB-1242	53469-21-9	0.064	ug/l	(1)	Grab
PCB-1248	12672-29-6	0.064	ug/l	(1)	Grab
PCB-1254	11097-69-1	0.064	ug/l	(1)	Grab
PCB-1260	11096-82-5	0.064	ug/l	(1)	Grab
Prometon	1610-18-0	50	ug/l	(1)	Grab
Propham	122-42-9	50	ug/l	(1)	Grab
n-Propylbenzene	103-65-1	5	ug/l	(1)	Grab
Pyrene	129-00-0	10	ug/l	(1)	Grab
Pyridine	110-86-1	50	ug/l	(1)	Grab
Sum of Quaternary ammonium compounds	NA	10	ug/l	(1)	Grab
Selenium,	NA	4 (2)	ug/l	(1)	Grab
Silver,	NA	200	ug/l	(1)	Grab
Simazine	122-34-9	8 (2)	ug/l	(1)	Grab
Styrene	100-42-5	50	ug/l	(1)	Grab
Sulfate	NA	250,000	ug/l	(1)	Grab
Sulfides, Total	NA	50	ug/l	(1)	Grab
Sulfite	NA	200	ug/l	(1)	Grab
Tebuthiuron	34014-18-1	50	ug/l	(1)	Grab
Terbufos	13071-79-9	100.0 (2)	ug/l	(1)	Grab
Sum of tetrachlorobenzenes	12408-10-5	10	ug/l	(1)	Grab
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	(1)	Grab
1,1,2,2-Tetrachloroethane	79-34-5	0.2	ug/l	(1)	Grab
Tetrachloroethylene	127-18-4	0.7	ug/l	(1)	Grab
Tetrahydrofuran	109-99-9	50	ug/l	(1)	Grab
Thallium, Total	NA	4	ug/l	(1)	Grab
Theophylline	58-55-9	40	ug/l	(1)	Grab
Terbufos	13071-79-9	100.0 (2)	ug/l	(1)	Grab

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning with the start of each discharge event and lasting until 7 days from start of discharge, the discharges from the treatment facility to surface water shall be limited and monitored by the operator as specified below:

Outfall Number and Effluent Parameter	CAS No.	Discharge Limitations		Minimum Monitoring Requirements	
		Daily Max	Units	Measurement Frequency	Sample Type
Sum of Tetrachlorobenzenes	12408-10-5	10	ug/l	(1)	Grab
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	(1)	Grab
1,1,2,2-Tetrachloroethane	79-34-5	0.2	ug/l	(1)	Grab
Tetrachloroet	127-18-4	0.7	ug/l	(1)	Grab
Toluene	108-88-3	5	ug/l	(1)	Grab
o-Toluidine	95-53-4	10 (2)	ug/l	(1)	Grab
Tolytriazole	29385-43-1	50	ug/l	(1)	Grab
Toxaphene	8001-35-2	1.0 (2)	ug/l	(1)	Grab
1,2,4-Tribromobenzene	615-54-3	5	ug/l	(1)	Grab
Tributyltin	56-35-9	50	ug/l	(1)	Grab
Sum of Trichlorobenzenes	12002-48-1	10	ug/l	(1)	Grab
1,1,1-Trichloroethane	71-55-6	5	ug/l	(1)	Grab
1,1,2-Trichloroethane	79-00-5	0.6	ug/l	(1)	Grab
Trichloroethylene	79-01-6	3	ug/l	(1)	Grab
Trichlorofluoromethane	75-69-4	5	ug/l	(1)	Grab
2,4,5-Trichloro-phenoxypropionic acid	93-72-1	10	ug/l	(1)	Grab
1,1,2-Trichloropropane	598-77-6	5	ug/l	(1)	Grab
1,2,3-Trichloropropane	96-18-4	5	ug/l	(1)	Grab
cis-1,2,3-Trichloropropene	13116-57-9	5	ug/l	(1)	Grab
trans-1,2,3-Trichloropropene	13116-58-0	5	ug/l	(1)	Grab
alpha,2,4-Trichlorotoluene	94-99-5	5	ug/l	(1)	Grab
alpha,2,6-Trichlorotoluene	2014-83-7	5	ug/l	(1)	Grab
alpha,3,4-Trichlorotoluene	102-47-6	5	ug/l	(1)	Grab
alpha,alpha-2-Trichlorotoluene	88-66-4	5	ug/l	(1)	Grab
alpha,alpha-4-Trichlorotoluene	13940-94-8	5	ug/l	(1)	Grab
2,3,4-Trichlorotoluene	7359-72-0	0.34	ug/l	(1)	Grab
2,3,5-Trichlorotoluene	56961-86-5	0.34	ug/l	(1)	Grab
2,3,6-Trichlorotoluene	2077-46-5	0.34	ug/l	(1)	Grab
2,4,5-Trichlorotoluene	6639-30-1	0.34	ug/l	(1)	Grab
2,4,6-Trichlorotoluene	23749-65-7	0.34	ug/l	(1)	Grab
1,1,1-Trichloro-2,2,2-trifluoroethane	354-58-5	5	ug/l	(1)	Grab
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	5	ug/l	(1)	Grab
1,2,3-Trimethylbenzene	526-73-8	5	ug/l	(1)	Grab
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	(1)	Grab
1,3,5-Trimethylbenzene	108-67-8	5	ug/l	(1)	Grab
2,3,6-Trimethylpyridine	1462-84-6	50	ug/l	(1)	Grab

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning with the start of each discharge event
and lasting until 7 days from start of discharge.

the discharges from the treatment facility to surface water shall be limited and monitored by the operator as specified below:

Outfall Number and Effluent Parameter	CAS No.	Discharge Limitations		Minimum Monitoring Requirements	
		Daily Max	Units	Measurement Frequency	Sample Type
2,4,6-Trimethylpyridine	108-75-8	50	ug/l	(1)	Grab
Triphenyl phosphate	115-86-6	4	ug/l	(1)	Grab
Vanadium, Total	NA	14	ug/l	(1)	Grab
Vinyl chloride	75-01-4	0.70 (2)	ug/l	(1)	Grab
1,2-Xylene	95-47-6	5	ug/l	(1)	Grab
1,3-Xylene	108-38-2	5	ug/l	(1)	Grab
1,4-Xylene	106-42-3	5	ug/l	(1)	Grab
Zinc, Total	NA	166	ug/l	(1)	Grab

Notes:

- (1) Samples must be collected prior to each discharge event. Discharge may not commence until the sample results show compliance with the above discharge limitations.
- (2) Discharge limit is set at the Practical Quantitation Limit (PQL). Actual surface water effluent standard/limitation is below this limit.
- (3) Limit applies to each isomer individually.
- (4) Limit applies to each salt individually.
- (5) Limit applies as boron equivalents to the sum of these substances.
- (6) Limit Includes forms that convert to the organic acid upon acidification to a pH of 2 or less; and esters of the organic acid
- (7) Includes related forms that convert to nitrilotriacetic acid upon acidification to a pH of 2.3 or less.
- (8) a. The treatment plant operator must monitor this discharge for PCBs using USEPA laboratory method 608. The laboratory must make all reasonable attempts to achieve a Minimum Detection Level (MDL) of 0.065 ug/l.
- b. 0.065 ug/l the discharge goal. The treatment plant operator shall report all values above the MDL (0.065 ug/l per Aroclor). If the level of any Aroclor is above 0.065ug/l the treatment plant operator must evaluate the treatment system and identify the cause of the detectable level of PCBs in the discharge
- c. If the Department determines that effluent monitoring above 0.065 ug/l can be prevented by implementation of additional measures as proposed by the treatment plant operator in footnote 10.b above, and approved by the Department, the treatment plant operator shall implement such additional measures.
- (9) Only site generated pump test and containerized well development water are authorized for treatment and discharge.
- (10) Samples and measurements, to comply with the monitoring requirements specified above, must be taken from the holding tank prior to discharge to _____.
- (11) Discharge is not authorized until such time as an engineering submission showing the method of treatment and discharge is approved by the Department. The discharge rate may not exceed the effective treatment system capacity. All monitoring data, engineering submissions and modification requests must be submitted to the following DHWR contact person: _____.
- (12) Total phenolics must be analyzed using EPA Methods 420.1 or 420.2.
- (13) Discharge to a surface water body within the New York City Watershed is not authorized by these effluent criteria. Separate review of any proposed discharge to a surface water within the New York City Watershed is required.

ARTICLE VI

Prohibited Sewer Uses

§ 63-16. Discharge.

No person shall discharge or cause to be discharged any stormwater, surface water, ground water, roof runoff, subsurface drainage, uncontaminated cooling water or unpolluted industrial process waters to any sanitary sewer, unless permitted pursuant to Section 63-17.

§ 63-17. Permits Required.

Storm water and all other unpolluted drainage shall be discharged to such sewers as are specifically designated as combined sewers or storm sewers, approved by the Director of Public Works. Industrial cooling water or unpolluted process waters may be discharged to a storm sewer or combined sewer only upon approval of the Director of Public Works. Permits required by higher regulatory authorities or agencies shall be acquired by the User. Copies of such permits issued by higher authorities or agencies shall be submitted to the Director of Public Works.

§ 63-18. Prohibited Discharge.

No User shall contribute or cause to be contributed, directly or indirectly any pollutant or wastewater which will pass through or interfere with the operation or performance of the POTW. These general prohibitions apply to all such Users of a POTW whether or not the User is subject to National Categorical Pretreatment Standards or any other National, State, or local Pretreatment Standards or Requirements. A User may not contribute the following substances to any POTW:

- (a) Any liquids, solids, or gases which by reason of their nature or quantity are, or may be, sufficient either alone or by interaction with other substances to cause fire or explosion or be injurious in any other way to the POTW or to the operation of the POTW. At no time, shall two successive readings on an explosion hazard meter, at the point of discharge into the system (or at any point in the system) be more than five percent (5%) nor any single reading over ten percent (10%) of the Lower Explosive Limit (LEL) of the meter. Prohibited materials include, but are not limited to, gasoline, kerosene, naphtha, benzene, toluene, xylene, ethers, alcohols, ketones, aldehydes, peroxides, chlorates, perchlorates, bromates, carbides, hydrides and sulfides, and any other substances which the City, the State, or EPA has notified the User is a fire hazard or a hazard to the system.
- (b) Solid or viscous substances which may cause obstruction to the flow in a sewer or other interference with the operation of the wastewater

treatment facilities such as, but not limited to: grease, garbage with particles greater than one-half inch (1/2") in any dimension, animal guts or tissues, paunch manure, bones, hair, hides or fleshings, entrails, whole blood, feathers, ashes, cinders, sand, spent lime, stone or marble dust, metal, glass, straw, shavings, grass clippings, rags, spent grains, spent hops, waste paper, wood, plastics, gas tar, asphalt residues, residues from refining or processing of fuel or lubricating oil, mud, or glass grinding or polishing wastes.

- (c) Any wastewater having a Ph less than 5.0, or greater than 10.0, or wastewater having any other corrosive property capable of causing damage or hazard to structures, equipment, and/or personnel of the POTW. **[Amended on 8-6-96 as L.L. #13 (Intro No. 15) 1996]**
- (d) Any wastewater containing toxic pollutants in sufficient quantity, either singly or by interaction with other pollutants, to injure or interfere with any wastewater treatment process, constitute a hazard to humans or animals, create a toxic effect in the receiving waters of the POTW, or to exceed the limitations set forth in a Categorical Pretreatment Standard. A toxic pollutant shall include but not be limited to any pollutant identified pursuant to Section 307(a) of the Act.
- (e) Any noxious or malodorous liquids, gases, or solids which either singly or by interaction with other wastes are sufficient to create a public nuisance or hazard to life result in toxic gasses, fumes, or vapors in quantities capable of causing acute health and safety problems for POTW personnel, or are otherwise sufficient to prevent entry into the sewers for maintenance and repair.
- (f) Oils and grease - Any commercial, institutional, or industrial wastes containing floatable fats, waxes, grease, or oils, or which become floatable when the wastes cool to the temperature prevailing, in the wastewater at the POTW treatment plant, during the winter season; also any commercial, institutional, or industrial wastes containing more than 100 mg/l of emulsified oil or grease; also any substances which will cause the sewage to become substantially more viscous, at any seasonal sewage temperature in the POTW; also petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through.
- (g) Any substance which may cause the POTW's effluent or any other product of the POTW such as residues, sludges, or scums, to be unsuitable for reclamation and reuse or to interfere with the reclamation process. In no case, shall the substance discharged to the POTW cause the POTW to be in non-compliance with sludge use or disposal criteria, guidelines or regulations developed under Section

405 of the Act; any criteria, guidelines, or regulations affecting sludge use or disposal developed pursuant to the Solid Waste Disposal Act, the Clean Air Act, the Toxic Substances Control Act, or State criteria applicable to the sludge management method being used.

- (h) Any substance which will cause the POTW to violate its NPDES and/or State Disposal System Permit or the receiving water quality standards.
- (i) Any wastewater with objectionable color not removed in the treatment process, such as, but not limited to, dye wastes and vegetable tanning solutions.
- (j) Any wastewater having a temperature which will inhibit biological activity in the POTW treatment plant resulting in Interference, but in no case wastewater with a temperature at the introduction into the POTW which exceeds 40°C (104°F).
- (k) Any pollutants, including oxygen demanding pollutants (BOD, etc.) released at a flow rate and/or pollutant concentration which will cause Interference to the POTW. In no case shall a slug load have a flow rate or contain concentration or quantities of pollutants that exceed for any time period longer than fifteen (15) minutes more than five (5) times the average twenty-four (24) hour concentration, quantities, or flow during normal operation.
- (l) Any wastewater containing any radioactive wastes or isotopes of such half-life or concentration as may exceed limits established by the Director of Public Works in compliance with applicable State or Federal regulations.
- (m) Any pollutant having a closed cup flashpoint of less than 140°F or 60°C using the test methods specified in 40 CFR 261.21.
- (n) Any wastewater which causes a hazard to human life or creates a public nuisance.
- (o) Any pollutants discharged by truck or hauled wastes to sanitary sewers except at points designated by the Director of Public Works.
- (p) Any substance, whether or not subject to other requirements contained herein, which, if otherwise disposed of, would be a hazardous waste under 40 CFR Part 261, except upon written notice [containing the information required by 40 CFR 403.12(p)] to the City, EPA and NYSDEC.

When the Director of Public Works determines that a User(s) is contributing to the POTW, any of the above enumerated substances in such amounts as to interfere with the operation of the POTW, the Director of Public Works shall:

- (1) Advise the User(s) of the impact of the contribution on the POTW;
and
- (2) Develop effluent limitation(s) for such User to correct the Interference with the POTW.

No User shall discharge wastewater to the sanitary sewer system when any of the pollutant concentrations exceed the limits specified below unless permitted by the Director of Public Works upon finding that such concentrations do not interfere with the overall operation of the POTW and its ability to meet the State and Federal discharge requirements. These concentrations shall be applied to wastewater effluents at a point just prior to discharge into the City sewer system. With the express written consent of the Director of Public Works, Users with multiple discharge outfalls may combine waste streams by calculation to report on wastewater characteristics.

<u>Substance</u>	<u>Effluent Concentration Limit (mg/l)</u>
Arsenic	0.2
Barium	4.0
Cadmium	0.2
Chromium-hex	2.0
Chromium-total	8.0
Copper	3.0
Lead	0.5
Mercury	0.2
Nickel	8.0
Selenium	0.1
Silver	0.2
Zinc	5.0
Cyanide-Total	2.0
Phenol	4.0

§ 63-19. Interceptors.

- (a) Grease, oil and sand interceptors shall be provided when, in the opinion of the Director of Public Works, they are necessary for the proper handling of liquid wastes containing grease in excessive amounts, or any flammable wastes, sand, or other harmful ingredients; except that such interceptors shall not be required for private living quarters or dwelling units. All interceptors shall be of a type and capacity approved by the Director of Public Works and shall be located as to be readily and easily accessible for cleaning and inspection.
- (b) Grease interceptors of a type and capacity approved by the Director of Public Works shall be required for all businesses engaging in food processing.

ARTICLE VII

Industrial Use of Public Sewers

§ 63-20. Permits Required For Discharge.

Any discharge of industrial wastes to the public sewer system shall be unlawful, unless specifically authorized by a Sewer Use Permit issued by the Director of Public Works.

§ 63-21. Sewer Use Permits.

It shall be unlawful to discharge without a City permit to any natural outlet within the City of Dunkirk, or in any area under the jurisdiction of said City, and/or to the POTW any wastewater except as authorized by the Director of Public Works in accordance with the provisions of this Ordinance.

- (a) Sanitary Sewer Use Permits shall be issued by the Director of Public Works authorizing the discharge of industrial wastewaters to the sanitary sewer system. The permits shall be specific in terms of the quantity of flow to be discharged and the contaminants contained therein.
- (b) Storm Sewer Use Permits shall be issued by the Director of Public Works to industries utilizing public storm sewers as a means of conveying treated uncontaminated cooling water not in excess of 150°F (65°C) receiving waters. It should be noted that industries utilizing public storm sewers as a means of discharge of cooling water, or any other pollutant, must also apply for a SPDES permit from the State.
- (c) No Sewer Use Permit is required for industries discharging only normal sanitary sewage from facilities such as toilets, urinals, sinks, showers, etc., and for that portion of each industry's flow which is comprised of strictly domestic sewage.

§ 63-22. Permit Duration.

Permits shall be issued for a specified time period, not to exceed three (3) years. A permit may be issued for a period less than a year or may be stated to expire on a specific date. The User shall apply for permit reissuance a minimum of 180 days prior to the expiration of the User's existing permit. The terms and conditions of the permit may be subject to modification by the City during the term of the permit as limitations or requirements as identified in Section 2 are modified or other just cause exists. The User shall be informed of any proposed changes in his permit at least 30 days prior to the effective date of change. Any changes or new conditions in the permit shall include a reasonable time schedule for compliance.

§ 63-23. Permit Transfer.

Sewer Use Permits are issued to a specific User for a specific operation. A Wastewater Discharge Permit shall not be reassigned or transferred or sold to a new Owner, new User, different premises, or a new or changed operation without the approval of the City. Any succeeding Owner or User shall also comply with the terms and conditions of the existing permit.

§ 63-24. Revocation of Permit.

Any User who violates any condition of his Permit or of this Ordinance, or of any applicable state and federal regulations, is subject to having his Permit revoked.

§ 63-25. Applications For Sewer Use Permits.

General Permits - All Significant Industrial Users proposing to connect to or contribute to the POTW shall obtain a Sewer Use Permit before connecting to or contribution to the POTW. All existing Significant Industrial Users connected to or contributing to the POTW shall obtain a Sewer Use Permit within 180 days after the effective date of this Ordinance.

Industries presently discharging uncontaminated cooling waters to the storm sewer system shall immediately apply to the Director of Public Works under § 63-20 and § 63-21.

Permit Application - Users required to obtain a Sewer Use Permit shall complete and file with the City, an application in the form prescribed by the City. Existing Users shall apply for a Sewer Use Permit within ninety (90) days after the effective date of this Ordinance, and proposed new Users shall apply at least ninety (90) days prior to connecting to or contributing to the POTW. In support of the application, the User may be required to submit, in units and terms appropriate for evaluation, the following information:

- (a) Name, address, and location, (if different from address);
- (b) SIC number according to the Standard Industrial Classification Manual, Bureau of the Budget, 1972 as amended, or its most recent edition;
- (c) Wastewater constituents and characteristics including, but not limited to, those mentioned in Section 63-26 of this Ordinance as determined by a reliable analytical laboratory; sampling and analysis shall be performed in accordance with procedures established by the EPA

pursuant to Section 304(g) of the Act and contained in 40 CFR 136, as amended;

- (d) Time and duration of contribution;
- (e) Average daily and maximum daily wastewater flow rates, including daily, monthly and seasonal variations, if any;
- (f) Site plans, floor plans, mechanical and plumbing plans and details to show all sewer connections, and appurtenance by the size, location and elevation;
- (g) Description of activities, facilities and plant processes on the premises including all materials which are or could be discharged;
- (h) Where known, the nature and concentration of any pollutants in the discharge which are limited by any City, State or Federal Pretreatment Standards or Requirements, and a statement regarding whether or not the pretreatment standards or requirements are being met on a consistent basis and, if not, whether additional Operation and Maintenance (O&M) and/or additional pretreatment is required for the User to meet applicable Pretreatment Standards or Requirements;
- (i) If additional pretreatment and/or O&M will be required to meet the Pretreatment Standards or Requirements; the shortest schedule by which the User will provide such additional pretreatment. The completion date in this schedule shall not be later than the compliance date established for the applicable Pretreatment Standard or Requirement:

The following conditions shall apply to this Schedule:

- (1) The Schedule shall contain increments of progress in the form of dates for commencement and completion of major events leading to the construction and operation of additional pretreatment required for the User to meet applicable Pretreatment Standards or Requirements (e.g., hiring an engineer, completing preliminary plans, completing final plans, executing contract for major components, commencing construction, completing construction, etc.).
- (2) No increment referred to in Paragraph (1) shall exceed nine (9) months.

- (3) Not later than 14 days following each date in the Schedule and the final date for compliance, the User shall submit a Progress Report to the Director of Public Works including, as a minimum, whether or not it complied with the increment of progress to be met on such date and, if not, the date on which it expects to comply with this increment of progress, the reason for delay, and the steps being taken by the User to return the construction to the schedule established. In no event shall more than nine (9) months elapse between such progress reports to the Director of Public Works.
- (j) Each product produced by type, amount, process or process and rate of production;
- (k) Type and amount of raw materials processed (average and maximum) per day;
- (l) Number and type of employees, and hours of operation of plant and proposed or actual hours of operation of pretreatment system;
- (m) Any other information as may be deemed by the City to be necessary to evaluate the Permit application.

The City will evaluate the data furnished by the User and may require additional information. After evaluation and acceptance of the data furnished, the City may issue a Sewer Use Permit subject to terms and conditions provided herein.

Permit Modifications - Within nine (9) months of the promulgation of a National Categorical Pretreatment Standard, the Sewer Use Permit of Users subject to such standards shall be revised to require compliance with such standard within the time frame prescribed by such standard. Where a User, subject to a National Categorical Pretreatment Standard, has not previously submitted an application for a Sewer Use Permit as required by Article VI of this Ordinance, the User shall apply for a Sewer Use Permit within 180 days after the promulgation of the applicable National Categorical Pretreatment Standard. In addition, the User with an existing Sewer Use Permit shall submit to the Director of Public Works within 180 days after the promulgation of an applicable Federal Categorical Pretreatment Standard the information required by Paragraphs (h) and (i) of the preceding section.

Permit Conditions - Sewer Use Permits shall be expressly subject to all provisions of this Ordinance and all other applicable regulations, User charges and fees established by the City. Permits may contain the following:

- (a) The unit charge or schedule of User charges and fees for the wastewater to be discharged to a community sewer;
- (b) Limits on the average and maximum wastewater constituents and characteristics;
- (c) Limits on average and maximum rate and time of discharge or requirements for flow regulations and equalization.
- (d) Requirements for installation and maintenance of inspection and sampling facilities;
- (e) Specifications for monitoring programs which may include sampling locations, frequency of sampling, number, types and standards for tests and reporting schedule;
- (f) Compliance schedules;
- (g) Requirements for submission of technical reports or discharge reports;
- (h) Requirements for maintaining and retaining plant records relating to wastewater discharge as specified by the City, and affording City access thereto;
- (i) Requirements for notification of the City or any new introduction of wastewater constituents or any substantial change in the volume or character of the wastewater constituents being introduced into the wastewater treatment system.
- (j) Requirements for notification of slug discharges;
- (k) Requirements for development of a spill prevention program to prevent slug discharges due to the improper storage or handling of materials;
- (l) Other conditions as deemed appropriate by the City to ensure compliance with this Ordinance.

§ 63-26. Limitations On Permit Issuance.

- (a) No Sanitary Use Permit shall be issued at any time for the discharge of uncontaminated wastewaters and/or cooling waters to the sanitary sewer system where there is ample evidence that such wastewaters could be discharged directly to the storm sewers and/or receiving stream without further treatment.

- (b) No Storm Sewer Use Permit shall be issued, at any time, for a discharge to the storm sewer system of treated industrial effluents. It should be noted that, in addition to any permit issued by the Director of Public Works, industries utilizing public storm sewers as a means of discharge of cooling waters or storm waters (under certain circumstances as set forth in 40 CFR 122.26) must also apply for a SPDES permit from the State.
- (c) No Sanitary Sewer Use Permit shall be issued at any time permitting the discharge or infiltration into the public sewer of any substances described in Section 63-18 of this Ordinance.

§ 63-27. Federal Pretreatment Standards.

Upon the promulgation of the Federal Pretreatment Standards for a particular industrial subcategory, the Federal Standard, if more stringent than limitations imposed under this Ordinance for sources in that subcategory, shall immediately supersede the limitations imposed under this Ordinance. The Director of Public Works shall notify all affected Users of the applicable reporting requirements under 40 CFR 403.12.

Modification of Federal Categorical Pretreatment Standards.

Where the City's wastewater treatment system achieves consistent removal of pollutants limited by Federal Pretreatment Standards, the City may apply to the Approval Authority for modification of specific limits in the Federal Pretreatment Standards. "Consistent Removal" shall mean the average of the lowest 50 percent of the removal measured according to the procedures set forth in 40 CFR Section 403.7 (b)(2) - "General Pretreatment Regulations for Existing and New Sources of Pollution" promulgated pursuant to the Act. The City may then modify pollutant discharge limits in the Federal Pretreatment Standards if the requirements contained in 40 CFR 403.7 are fulfilled and prior approval from the Approval Authority is obtained.

State Requirements.

State requirements and limitations on discharges shall apply in any case where they are more stringent than Federal requirements and limitations or those in this Ordinance.

City's Right of Revision.

The City reserves the right to establish by Ordinance more stringent limitations or requirements on discharges to the wastewater disposal system if deemed necessary to comply with the objectives presented in this Ordinance.

SECTION 02220

DEMOLITION OF STRUCTURES

PART 1 GENERAL

1.01 DESCRIPTION

- A. The Work specified in this Section consists of the labor, equipment, tools, materials, and services needed to perform the demolition and properly dispose of concrete slabs, foundations, or other structures, as specified on the Contract Drawings or herein. No demolition activities shall be conducted until evidence of permit (as required) or proof of permit is provided to Department.
- B. Work included in this section:
 - 1. Demolition of steel pier and concrete column foundation.
 - 2. Demolition concrete outlet structures in pond.
 - 3. Demolition of water meter building (FR building) and concrete foundation.
 - 4. Cutting and capping of existing pipes inlet or outlets to pond.
 - 5. Any structure determined to interfere with construction activities or as determined by the Engineer.

1.02 RELATED SECTIONS

- A. Section 01425: Sampling.
- B. Section 01500: Construction Facilities and Temporary Controls.
- C. Section 02230: Earthwork.
- D. Section 02240: Transportation and Disposal.
- E. Section 02330: Site Restoration.

1.03 SUBMITTALS

- A. Quality Control Submittals:
 - 1. Permits: Submit one copy of each permit as required by City of Dunkirk.

2. Submit the proposed methods of operations of demolition to the Engineer for review prior to the start of work or a demolition plan.
- B. Submit the name, location and a copy of the disposal license for the off-site facility or facilities used to dispose of the concrete, scrap metal, and miscellaneous debris.
- C. Submit detailed experience and qualifications description of licensed electrician contracted to perform disconnection of existing electrical utilities.

1.04 QUALITY ASSURANCE

- A. Permits: Before the Work of this Section is started; obtain all permits as required by Federal, State, and local jurisdictions for all phases and operations of the Work.
- B. Demolition Plan: Before the Work of this Section is started, prepare a detailed demolition plan. The demolition plan shall include, but not be limited to, detailed outline of intended demolition and disposal procedures. The demolition plan will not relieve the Contractor of complete responsibility for the successful performance of the Work in accordance with all applicable Federal, State, and local codes and restrictions.

1.05 PROJECT CONDITIONS

- A. Recycle/scrap steel/metal demolition debris to the extent possible. Clean as needed using pressure washer prior to offsite removal.
- B. Concrete in contact with soil shall be brush cleaned prior to sampling. Concrete structures shall be demolished and broken down to a size acceptable for disposal by the approved landfill disposal facility or as directed by the Engineer.
- C. Dispose of wood and plastic in accordance with the approved landfill disposal facility requirements.
- D. Burning is prohibited.
- E. The use of explosives is prohibited.
- F. Protect and verify location of utilities during the Work of this Section.
- G. Electrical utilities shall be disconnected by a licensed electrician. All other utilities, if applicable, shall be disconnected by others. Comply with National Electric Code and utility regulations.
- H. Prior to beginning demolition, verify that all utilities serving the building to be demolished have been disconnected.
- I. Contractor shall restore site to match existing grade.

- J. Disposal of demolition debris, for bidding purposes, shall be assumed as non-hazardous.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 GENERAL

- A. Concrete demolition debris shall be handled as follows:
1. Concrete in contact with pond water or subsurface soil materials as determined by the Engineer shall be sampled as described in Section 01425 Sampling. If analytical results determine the material is not contaminated it may be used as backfill if directed by the Engineer. All concrete shall be considered as non-hazardous waste unless otherwise indicated from sampling results and in accordance with the New York State Regulations (Title 6, Chapter IV, Parts 376.4 (d), (e), (t)). The Contractor shall verify that the correct contaminant and disposal procedure has been identified and completed. In addition, the Contractor will pay for all costs including but not limited to the identification, sampling, testing, excavation, stockpiling, handling and disposal of hazardous materials. Contractor, for bidding purposes shall assume all concrete be demolished, removed and disposed at an offsite disposal facility.
 2. All concrete encountered during excavation shall be removed, as specified herein, to the extent necessary to complete the required excavations. It is noted that subsurface structural foundations may exist at unknown depths that may be encountered during excavations. Foundations should be removed only to the extent necessary to complete the required excavations, and as directed by the Engineer.
 3. All concrete shall be brushed clean of contaminated soil and debris prior to being sent off-site for disposal.
 4. All concrete considered to be hazardous shall be sent off-site for disposal at an approved disposal facility permitted to accept such material. Concrete shall be broken/crushed/pulverized to a size acceptable by the approved disposal facility or as directed by the Engineer.
 5. All non-hazardous concrete shall be broken/crushed/pulverized to a size acceptable and sent off-site for disposal at an approved industrial landfill or as directed by the Engineer. For concrete to be considered non-hazardous, it must meet the requirements of the New York State Regulations (Title 6, Chapter IV, Parts 376.4(d),(e),(t)).

- B. Steel or metal demolition debris may be scrapped at an approved facility or disposed off-site in a permitted construction and demolition debris (C & D) landfill.
- C. Demolition shall be conducted with appropriately sized equipment and in a manner to minimize contact of concrete debris with contaminated soil. Concrete debris currently in contact with contaminated soil will have contaminated soil removed at the area of excavation. All concrete demolition shall be assumed to contain steel reinforcement.
- D. Contractor shall prevent the damage of existing structures and equipment that is not scheduled for demolition. If damage occurs, the structures shall be repaired at the Contractor's expense.

3.02 PREPARATION

- A. Investigate the structure.
- B. Remove loose equipment, materials, supplies, and furnishings from structures prior to demolition.
- C. Remove items scheduled to be salvaged, and place in designated storage area.

3.03 DEMOLITION

- A. Perform demolition in a systematic manner, beginning at the top of the structure and proceeding downward.
- B. Wet down masonry and plaster materials during demolition to prevent spread of dust and dirt. Sprinkle debris, and use temporary enclosures as necessary to limit dust to lowest practicable level. Do not use water to extent causing flooding, contaminated runoff, or icing.
- C. Do not place demolition equipment where it will create excessive loads on supporting walls, floors, and frames. Promptly remove accumulated debris and materials.
- D. Remove all combustible material, glass and metal.
- E. Remove pavements, curbs, slabs on grade where shown on the Contract Drawings, unless shown or directed otherwise.

3.04 DISPOSAL

- A. Transport demolition debris and excess fill to designated disposal area as soon as practicable or as directed by Engineer. Grade disposal areas to adjacent contours and slope to drain or as directed.

END OF SECTION

SECTION 02230

EARTHWORK

PART 1 GENERAL

1.01 DESCRIPTION

- A. The Contractor shall furnish all labor, equipment, and materials, and execute all earthwork activities at locations specified on the Contract Drawings. Contractor shall provide utility mark-out prior to any subsurface construction activities.

1.02 REFERENCES

- A. All earthwork remedial action construction activities, shall be in accordance with requirements included in:
 - 1. Division of Environmental Remediation (DER)-10/Technical Guidance for Site Investigation and Remediation.
 - 2. NYSDEC 6 NYCRR Part 375
 - 3. NYSDEC CP-51/Soil Cleanup Guidance
 - 4. All federal, state and local requirements for Earthwork activities specified herein.

1.03 RELATED SECTIONS

- A. Section 01425: Sampling
- B. Section 01560: Erosion and Surface Water Control
- C. Section 02110: Clearing and Grubbing
- D. Section 02140: Dewatering
- E. Section 02220: Demolition of Structures
- F. Section 02235: Excavation
- G. Section 02238: Backfill
- H. Section 02241: Rock Removal
- I. Section 02330: Site Restoration
- J. Section 02810: Decontamination

1.04 DEFINITIONS

- A. The following terms have the meanings ascribed to them in this Article herein.
1. Subgrade Surface: Surface upon which subbase or topsoil is placed.
 2. Subbase: Select granular material or subbase course Type 2 which is placed immediately beneath roadways.
 3. Maximum Density: The dry unit weight in pounds per cubic foot of the soil at “Optimum Moisture Content” when determined by ASTM D 698 (Standard Proctor).
 4. Structures: Buildings, footings, foundations, retaining walls, slabs, tanks, piers, mechanical and electrical appurtenances, or other man-made stationary features constructed above or below the ground surface.
 5. Landscaped Areas: Areas not covered by structures, walks, roads, paving, or parking.
 6. Grading Limit Line (Shown on Contract Drawings): Limits of grading, excavations and filling required for the work of this contract. Unless specifically noted otherwise, the Grading Limit Line and Contract Limit Line will be considered the same.

1.05 SUBMITTALS

- A. Product Data:
1. Geomembrane Liner: Manufacturer’s catalog sheets, specifications, and installation instructions.
 2. Geotextile Filter Fabric: Manufacturer’s catalog sheets, specifications, and installation instructions.
 3. Geogrid: Manufacturer’s catalog sheets, specifications, and installation instructions.
- B. Environmental Sampling: See Section 01425 – Sampling and in accordance with DER-10/Technical Guidance for Site Investigation and Remediation.
- C. Quality Control Submittals:
1. If required, Sheet piling, Shoring, and Bracing (Not shown on the Contract Drawings): Submit a detailed plan of intended sheet piling, shoring and bracing, signed by a New York State licensed Professional Engineer, for the Engineer’s information. This submittal will not relieve the Contractor of responsibility for the successful performance of the intended sheet piling, shoring and bracing methods.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Geotextile, Geogrid, and Geomembrane products from sunlight during transportation and storage.

PART 2 PRODUCTS

2.01 GEOTECHNICAL SUBSURFACE MATERIALS

- A. Filter Fabric (GeoTextile):
 - 1. Separation/Stabilization beneath roadways soil staging area and decontamination pad: GeoTex 801, Bonded Fibers Products PN080, Maccaferri Gabions MacTex MX275 & 340, Mirafi 160N & 180N or equivalent.
- B. Geogrids:
 - 1. Subgrade Stabilization as needed. Contractor shall propose geogrid product with approval from by the Owner or Owner's Representative.
- C. Geomembrane:
 - 1. Impermeable HDPE Liner beneath soil staging area and decontamination pad. Colorado Lining International 40 mil HDPE liner or approved equivalent.
 - 2. Impermeable HDPE Liner to cover water materials shall be 20-mil HDPE sealed watertight liner. Contractor shall propose liner for approval by Engineer.

2.03 SHEETING, SHORING, AND BRACING

- A. Steel Sheetpiling: Continuous interlock type complete with all required accessories, complying with ASTM A 328 or ASTM A 572.
 - 1. Furnish steel sheetpiling of design, configuration, and length to resist pressure of earth to be retained.
- B. Slide Rail Shoring:
 - 1. Furnish slide rail shoring system design, configuration and dimensions to resist pressure of earth to be retained.

PART 3 EXECUTION

3.01 CLEARING AND GRUBBING

- A. See Section 02110

3.02 REMOVAL OF TOPSOIL

- A. Remove existing topsoil from areas within the Grading Limit Line where excavation or fill is required.
- B. Place all topsoil in soil staging area for testing and disposal unless otherwise directed by the Engineer.
 - 1. If topsoil is directed to be stockpiled it will be tested prior to stockpiling. Stockpile only quantities of topsoil approved in writing for re-use.
 - 2. All top soil shall undergo environmental sampling as required by DER-10 and as described in Section 01425 – Sampling.

3.03 UNDERGROUND AND POND UTILITIES

- A. Locate existing underground utilities prior to commencing any earthwork activities. Determine exact utility locations by means of geophysical penetrating radar or when directed by hand excavated test pits. Support and protect utilities to remain in place.
- B. Do not interrupt existing utilities that are in service until temporary or new utilities are installed and operational.
- C. Abandoned pond or utilities consist of piping networks, inlets and outlets to pond. Construction activities will consist of excavating to 1 foot beyond the proposed depths shown on the Contract Drawings and abandon in-place by cutting and capping. Excavations required for their removal will be backfilled and compacted as specified in Sections 02235 and 02238.
 - 1. Permanently close open ends of abandoned underground utilities exposed by excavations.
 - 2. Close open ends of metallic/plastic conduit and pipe with threaded galvanized metal caps or plastic plugs or other approved method for the type of material and size of pipe. Do not use wood plugs.
 - 3. Close open ends of concrete and masonry utilities with concrete or flowable fill.
- D. Miscellaneous abandoned utilities that are no longer in services interfering with construction activities shall be decommissioned in accordance with method described in Article 3.03 Part C 1 -3.

3.04 EXCAVATION

- A. See Section 02235

3.05 DEWATERING

- A. See Section 02140

3.06 SHEETING, SHORING, AND BRACING

- A. Temporary Sheeting: If necessary, install temporary sheeting or sheetpiling with shoring and bracing as required to create a safe working environment and prevent settlement or other damage to adjacent grounds and structures resulting from excavation operations. Shore and brace sheeting in a manner which will not interfere with progress of other Work or related contracts (if any) on this project. Check shoring and bracing for settlement, and adjust for settlement. Promptly remove temporary sheeting, shoring, and bracing following completion of backfill operations. Decontaminate and demobilize for re-use as applicable.
- B. Slide Rail Shoring: If necessary, install/remove approved slide rail shoring system in accordance with manufacturer's recommendations.

3.07 PLACEMENT GEOTEXTILE FILTER FABRIC

- A. Place and overlap filter fabric in accordance with the manufacturer's installation instructions, unless otherwise shown.
- B. Cover tears and other damaged areas with additional filter fabric layer extending three feet beyond the damage.
- C. Do not permit traffic or construction equipment directly on filter fabric.
- D. Backfill over filter fabric within two weeks after placement. Backfill in accordance with the fabric manufacturer's instructions and in a manner to prevent damage to the fabric.

3.08 PLACEMENT OF GEOGRID

- A. Place and backfill over geogrid in accordance with the manufacturer's installation instructions.
- B. Do not permit traffic or construction equipment directly on unless approved by Engineer.

3.09 PLACEMENT OF GEOMEMBRANE LINER

- A. Visually inspect liner prior to installation. If damaged replace liner at no additional cost to Department.
- B. Place and geomembrane in accordance with the manufacturer's installation instructions, unless otherwise directed.
- C. Do not permit traffic or construction equipment directly on filter fabric.
- D. Backfill over liner in accordance with Contract Drawings and as specified by the manufacturer. Contractor shall take care to prevent damage during liner backfill

operations. Damaged material during installation shall be replaced at no additional cost to Department.

3.10 PLACEMENT OF BACKFILL

- A. See Section 02238

3.09 COMPACTION

- A. See Section 02238

3.10 ROUGH GRADING

- A. Grading: Trim and grade area within the Grading Limit Line and excavations outside the limit line, as depicted on the Contract Drawings, to a level of 4 inches below the finish grades indicated on the Contract Drawings unless otherwise specified herein or where greater depths are indicated. Provide smooth uniform transition to adjacent areas.
- B.
 - 1. Slope cut and fill in transition areas, outside of the grading limit line, to meet corresponding levels of existing grades at a slope of 1 vertical to 2 horizontal unless otherwise indicated by the Engineer.
 - 2. Landscaped Areas: Provide uniform subgrade surface within 1 inch of required level to receive topsoil thickness specified. Compact fill as specified to within three inches of subgrade surface. Remove objectionable material detrimental to proper compaction or to placing full depth of topsoil. If the top three inches of subgrade has become compacted before placement of topsoil, harrow or otherwise loosen rough graded surface to receive topsoil to a depth of three inches immediately prior to placing topsoil. Areas to be landscaped shall be in accordance with locations indicated on the Contract Drawings and as otherwise directed by the Engineer.

3.11 SUBGRADE SURFACE FOR PAVEMENT

- A. Shape and grade subgrade surface as follows:
 - 1. Pavements: Shape the surface of areas under pavement to required line, grade and cross section, with the finish surface not more than 1/2 inch above or below the required subgrade surface elevation.
- B. Grade Control: During construction, maintain lines and grades shown.
- C. Thoroughly compact subgrade surface for walks and pavement by mechanical rolling, tamping, or with vibratory equipment as approved to the density specified.

3.12 FINISH GRADING

- A. Uniformly grade rough graded areas within limits of the Grading Limit Line to finish grade elevations indicated. Finish grade shall match grades shown on the Contract Drawings.
- B. Grade and compact to smooth finished surface within tolerances specified, and to uniform levels or slopes between points where finish elevations are indicated or between such points and existing finished grade.
- C. Grade areas adjacent to building lines so as to drain away from structures and to prevent ponding.
- D. Finish surfaces free from irregular surface changes, and as follows:
 - 1. Grassed Areas: Finish areas to receive topsoil to within one inch above or below the required subgrade surface elevations.
 - 2. Walks: Place and compact subbase material as specified. Shape surface of areas under walks to required line, grade and cross section, with the finish surface not more than 1/2 inch above or below the required subbase elevation.
 - 3. Pavements: Place and compact subbase material as specified. Shape surface of areas under pavement to required line, grade and cross section, with the finish surface not more than 1/2 inch above or below the required subbase elevation.
- E. Spread topsoil directly upon prepared subgrade surface to a depth measuring four inches after compaction has occurred in areas to be seeded. Place to greater depth when necessary to adjust grades to required elevations. See Specification 02330 –Site Restoration.
- F. Finish topsoil surface free of depressions which will trap water, free of stones over 1 inch in any dimension, and free of debris.

3.13 SITE RESTORATION

- A. See Section 02330

3.14 DISPOSAL OF EXCESS AND UNSUITABLE MATERIALS

- A. Remove from property and dispose of excess and unsuitable materials, including sediment, soil, asphalt, concrete, demolition debris and materials resulting from excavation, clearing and grubbing, and other construction activities unless otherwise directed by Engineer. It is the Contractor's responsibility to segregate debris into that which is suitable for off-site treatment and that which requires off-site disposal. Debris that is not readily suitable for off-site treatment or off-site disposal shall be manipulated into a manageable size to render the materials suitable for treatment or disposal as required by the receiving facility.

- B. Disposal on excess and unsuitable material will be paid on a unit price per ton basis. Payment will be made based on a per ton basis of material disposed of as measured at the receiving disposal facility (i.e. weigh tickets).

3.15 PROTECTION

- A. Protect graded areas from traffic and erosion, and keep them free of trash and debris.

END OF SECTION

SECTION 02235

EXCAVATION

PART 1 GENERAL

1.01 DESCRIPTION

- A. The Contractor shall furnish all labor, equipment, and materials, and execute all excavation activities necessary to conduct work at locations specified on the Contract Drawings. Excavation materials include pond sediments, perimeter pond slag berm, pond side bank soil, soils within property boundary or as otherwise directed. Contractor shall provide utility mark-out prior to any subsurface construction activities.

1.02 REFERENCES

- A. All excavation remedial action construction activities, shall be in accordance with requirements included in:
 - 1. Division of Environmental Remediation (DER)-10/Technical Guidance for Site Investigation and Remediation.
 - 2. NYSDEC 6 NYCRR Part 375
 - 3. NYSDEC CP-51/Soil Cleanup Guidance
 - 4. All federal, state and local requirements for excavation activities specified herein.

1.03 RELATED SECTIONS

- A. Section 01425: Sampling
- B. Section 01560: Erosion and Surface Water Control
- C. Section 02110: Clearing and Grubbing
- D. Section 02140: Dewatering
- E. Section 02220: Demolition of Structures
- F. Section 02230: Earthwork
- G. Section 02238: Backfill
- H. Section 02241: Rock Removal
- I. Section 02330: Site Restoration
- J. Section 02810: Decontamination

1.04 DEFINITIONS

- A. The following terms have the meanings ascribed to them in this Article herein.
1. **Unclassified Earth Excavation:** The excavation and disposal of all surface and subsurface materials of any description necessary to perform the work of this contract. This will include:
 - a. All soil deposits of any description both above and below groundwater levels. These may be naturally deposited or placed by previous construction operations.
 - b. Boulders of any size.
 - c. Any materials of man-made origin.
 2. **Unauthorized Excavation:** The removal of material below required elevation indicated on the Contract Drawings or beyond lateral dimensions indicated or specified without specific written direction by the Engineer.
 3. **Grading Limit Line (Shown on Contract Drawings):** Limits of grading, excavations and filling required for the work of this contract. Unless specifically noted otherwise, the Grading Limit Line and Contract Limit Line will be considered the same.

1.05 SUBMITTALS

- A. **Quality Control Submittals:**
1. **Excavation Procedure:** Submit a lay out drawing or detailed outline of intended excavation procedure for the Departments information. This submittal will not relieve the Contractor of responsibility for the successful performance of intended excavation methods.

PART 2 PRODUCTS

NOT USED

PART 3 EXECUTION

3.01 CLEARING AND GRUBBING

- A. See Section 02110

3.02 REMOVAL OF TOPSOIL

- A. Remove existing topsoil from areas within the Grading Limit Line where excavation or fill is required.

- A. Place all topsoil in soil staging area for testing and disposal unless otherwise directed by the Engineer.
 - 1. If topsoil is directed to be stockpiled it will be tested prior to stockpiling. Stockpile only quantities of topsoil approved in writing for re-use.
 - 2. All top soil shall undergo environmental sampling as required by DER-10 and as described in Section 01425 – Sampling.

3.03 EXCAVATION

- A. Excavation of Contaminated Materials: Excavate sediment and soil as required for the Work and as shown on the Contract Drawings. Place all material in soil staging area shown on the Contract Drawings unless an alternative location is approved by the Engineer. Upon completion of excavation to required depths Contractor shall collect composite side wall and composite bottom samples for laboratory analysis (See Section 01425-Sampling) to show contaminant levels are below NYCRR Part 375 Commercial soil cleanup objectives. Refer to Table 4, Recommended Number of Soil Samples for Soil Imported to or Exported from a Site in NYSDEC CP-51 Soil Cleanup Guidance for sampling frequency and analysis. Where sample exceedances exist Contractor shall continue excavation as directed by the Engineer and resample. This process shall continue until commercial cleanup objectives are met (Commercial RSCO is 1 part per million (ppm) for PCBs). No excavation shall be conducted outside the property boundary unless directed by the Engineer.

Three post-excavation surficial samples will be collected from the bedrock in Willowbrook Pond. The samples will be collected at existing sample locations SS-9, SED-2, and SED-5. If the results from these three samples are less than or equal to 1 ppm, it will be assumed that the bedrock over the entire pond is less than 1 ppm and no further action will be required prior to backfilling. If the results from these three samples are greater than 1 ppm, it will be assumed that the bedrock over the entire pond is greater than 1 ppm and further action, such as power washing the bedrock, will be required prior to backfilling.

- B. Excavation of Perimeter Pond Slag Berm: Excavate pond slag berm in its entirety and place all slag material in soil staging area for disposal. Soil sampling and analysis shall be conducted in accordance with Article 3.04 Excavation Part A.
- C. Excavation for Temporary Structures and Facilities: Conform to elevations, lines, and limits indicated on Contract Drawings or as directed by Engineer. Extend excavation a sufficient lateral distance to provide clearance to execute the Work.
- D. Install and maintain all erosion and sedimentation controls during all earthwork operations as specified in Section 01560, Contract Drawings or as directed by local officials. If the erosion and sedimentation controls specified by the

Engineer/local officials are more stringent than those specified on the Contract Drawings contact the Engineer.

- E. Maintain sides and slopes of excavations in a safe condition until completion of backfilling. Comply with Code of Federal Regulations Title 29 - Labor, Part 1926 (OSHA).
 - 1. Trenches: If necessary, deposit excavated material on one side of trench only. Trim banks of excavated material to prevent cave-ins and prevent material from falling or sliding into trench. Keep a clear footway between excavated material and trench edge. Maintain areas to allow free drainage of surface water.
- F. Stockpile all excavated material in the soil staging area as shown on the Contract Drawings unless otherwise directed by Department/Engineer.
- G. Miscellaneous Concrete Work: If required, excavate to the following depths on site or as directed by engineer below bottom of concrete for addition of select granular material as shown on Contract Drawings:
 - 1. Slabs/Miscellaneous: 12 inches unless otherwise directed by Engineer.
- H. Pipe Trenches: Open only enough trench length to facilitate laying pipe sections. Unless otherwise indicated on the Contract Drawings, excavate trenches approximately 18 inches wide plus the outside pipe diameter, equally divided on each side of pipe centerline. Cut trenches to cross section, elevation, profile, line, and grade indicated on Contract Drawings. Accurately grade and shape trench bottom for uniform bearing of pipe in undisturbed earth. Excavate at bell and/or coupling joints to allow ample room for proper pipe connections.
- I. Notify the Engineer upon completion of excavation operations. Do not proceed with the Work until the excavation is inspected and approved.
- J. No excavation or other construction activities shall be conducted under existing structures.

END OF SECTION

SECTION 02238

BACKFILL

PART 1 GENERAL

1.01 DESCRIPTION

- A. The Contractor shall furnish all labor, equipment, and materials, and execute all backfill activities necessary to complete operations at locations specified on the Contract Drawings. Backfill materials used shall be imported and installed as directed and as specified herein.

1.02 REFERENCES

- A. All backfill activities, including imported backfill material sampling requirements shall be in accordance with requirements included in:
 - 1. Division of Environmental Remediation (DER)-10/Technical Guidance for Site Investigation and Remediation.
 - 2. NYSDEC 6 NYCRR Part 375
 - 3. NYSDEC CP-51/Soil Cleanup Guidance
 - 4. All federal, state and local requirements for backfill activities specified herein.

1.03 RELATED SECTIONS

- A. Section 01425: Sampling
- B. Section 01560: Erosion and Surface Water Control
- C. Section 02110: Clearing and Grubbing
- D. Section 02140: Dewatering
- E. Section 02220: Demolition of Structures
- F. Section 02230 Earthwork
- G. Section 02235 Excavation
- H. Section 02241: Rock Removal
- I. Section 02330: Site Restoration
- J. Section 02810: Decontamination

1.04 DEFINITIONS

- A. The following terms have the meanings ascribed to them in this Article herein.
1. Subgrade Surface: Surface upon which subbase or topsoil is placed.
 2. Subbase: Select granular material or subbase course Type 2 which is placed immediately beneath roadways.
 3. Maximum Density: The dry unit weight in pounds per cubic foot of the soil at "Optimum Moisture Content" when determined by ASTM D 698 (Standard Proctor).
 4. Grading Limit Line (Shown on Contract Drawings): Limits of grading, excavations and filling required for the work of this contract. Unless specifically noted otherwise, the Grading Limit Line and Contract Limit Line will be considered the same.

1.05 SUBMITTALS

- A. Imported Material Samples: Submit samples as follows, unless documentation from source can be provided to certify materials meet required geotechnical parameters. Take the samples in the presence of the Engineer, and submit to the Engineer the laboratory test results for gradation, proctors and soundness tests, when required. These tests will be performed in accordance with ASTM standards, will be performed and signed by a certified soils laboratory, and will be submitted as part of the original submittal. At a minimum the samples taken will be of the following quantities:
1. Select Granular Material: 50 - 60 lb. (Two Samples).
 2. Subbase Course Type 2: 50 - 60 lb. (Two Samples).
 3. Selected Fill: 40 - 50 lb.
 4. Cushion Material: 30 lb.
 5. Crushed Stone: 30 lb.
 6. Underdrain Filter Material: 40 - 50 lb.
- B. Quality Control Submittals:
1. Subbase Materials: Name and location of source and the DOT Source Number. If the material is not being taken from an approved DOT Source the results of the gradation and soundness tests performed by an ASTM certified soils laboratory will be required.
 2. Other Aggregates: Name and location of source and soil laboratory test results.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Not Used

PART 2 PRODUCTS

2.01 MATERIALS

- A. Select Granular Material: Stockpiled, sound, durable, sand, gravel, stone, or blends of these materials, free from organic and other deleterious materials. Comply with the gradation and material requirements specified below:

Sieve		Percent Passing
Sieve Size	Size opening (mm)	
2 inch	50.8	100
1/4 inch	6.35	30-65
No. 40	0.425	5-40
No. 200	0.075	0-10

1. Magnesium Sulfate Soundness Test: 20 percent maximum loss by weight after four test cycles.
 2. Plasticity Index: The plasticity index of the material passing the No. 40 mesh sieve will not exceed 5.0.
 3. Elongated Particles: Not more than 30 percent, by weight, of the particles retained on a 1/2 inch sieve will consist of flat or elongated particles. A flat or elongated particle is defined as one which has its greatest dimension more than three times its least dimension.
- B. Subbase Course Type 2: Stockpiled, crushed ledge rock or approved blast furnace slag. Comply with the gradation and material requirements specified below:

Sieve		Percent Passing
Sieve Size	Size opening (mm)	
2 inch	50.8	100
1/4 inch	6.35	25-60
No. 40	0.425	5-40
No. 200	0.075	0-10

1. Magnesium Sulfate Soundness Test: 20 percent maximum loss by weight after four test cycles.
2. Plasticity Index: The plasticity index of the material passing the No. 40 mesh sieve will not exceed 5.0.
3. Elongated Particles: Not more than 30 percent, by weight, of the particles retained on a 1/2 inch sieve will consist of flat or elongated

particles. A flat or elongated particle is defined as one which has its greatest dimension more than three times its least dimension.

- C. Selected Fill: Sound, durable, sand, gravel, stone, or blends of these materials, free from organic and other deleterious materials. Comply with the gradation requirements specified below:

Sieve		Percent Passing
Sieve Size	Size opening (mm)	
4 inch	101.6	100
No. 40	0.425	0-70
No. 200	0.075	0-15

- D. Suitable Material (Fill and Backfill for Landscaped Areas): Material consisting of mineral soil (inorganic), blasted or broken rock and similar materials of natural or man-made origin, including mixtures thereof. Maximum particle size will not exceed 2/3 of the specified layer thickness prior to compaction. NOTE: Material containing cinders, industrial waste, sludge, building rubble, land fill, muck, and peat will be considered unsuitable for fill and backfill, except topsoil and organic silt may be used as suitable material in landscaped areas provided it is placed in the top layer of the subgrade surface.

- E. Cushion Material: Will consist of clean, hard, durable, uncoated particles, free from lumps of clay and all deleterious substances and will meet the following gradation requirements:

Sieve Size		Percent Passing
Sieve Size	Size opening (mm)	
1/4 inch	6.35	100
No. 60	0.25	0-35
No. 100	0.15	0-10

- F. Item B-12: Equal Blend of No.1 and No. 2 Crushed Stone that complies with material requirements of DOT Article 703-02, crushed stone only.

Sieve		Percent Passing
Sieve Size	Size opening (mm)	
1-1/2 inch	38.1	100
1 inch	25.4	95-100
1/2 inch	12.7	45-60
1/4 inch	6.35	0-15

- G. No. 1 Coarse Aggregate: Crushed Stone that complies with material requirements of DOT Article 703-02 and meets the following gradation.

Sieve		Percent Passing
Sieve Size	Size opening (mm)	

Sieve		Percent Passing
Sieve Size	Size opening (mm)	
1 inch	25.4	100
1/2 inch	12.7	90-100
1/4 inch	6.35	0-15

- H. No. 2 Coarse Aggregate: Crushed Stone that complies with material requirements of DOT Article 703-02 and meets the following gradation.

Sieve		Percent Passing
Sieve Size	Size opening (mm)	
1-1/2 inch	38.1	100
1 inch	25.4	90-100
1/2 inch	12.7	0-15

- I. Rip Rap: Medium Stone Filling that complies with DOT Article 620-2.02 for stone filling.

- J. Pea Gravel: Comply with DOT Article 703-02 for screened gravel.

Sieve		Percent Passing
Sieve Size	Size opening (mm)	
1/2 inch	12.7	100
1/4 inch	6.35	90-100
1/8 inch	3.17	0-15
No. 200 Sieve	0.075	0-1

- K. Flowable Fill: Shall consist of a mixture of Portland cement, sand, water and admixtures proportioned to provide a non-segregating, free-flowing, self-consolidating material that will result in a hardened, dense backfill.

- L. Topsoil: See Section 02330 – Site Restoration

2.02 SAMPLING OF BACKFILL

Backfill material will require full Target Compound List (TCL) analysis. The backfill must meet or exceed NYCRR Part 375 Commercial soil cleanup objectives. Refer to Table 4, Recommended Number of Soil Samples for Soil Imported to or Exported from a Site in NYSDEC CP-51 Soil Cleanup Guidance for sampling frequency and analysis.

PART 3 EXECUTION

3.01 PLACEMENT OF BACKFILL

- A. Surface Preparation of Excavated and Fill Areas: Prior to placement of fill, smooth out and compact areas where directed by Engineer and where wheel rutting has occurred due to stripping or earthwork operations.

- B. Excavations: Backfill as promptly as Work permits, but not until completion of the following:
1. Acceptance by the Engineer of final excavation grade construction shown on the Contract Drawings or as previously directed.
 2. Samples have been collected analyzed and results indicate contaminant levels are below Contract required cleanup objectives or as approved by the Engineer.
 3. As needed, removal of temporary shoring or sheetpiling and backfilling of voids caused by removals. See Article 3.06 for sheeting, shoring and bracing requirements.
 4. Removal of trash and debris.
- C. Place backfill and fill materials in layers not more than twelve inches thick in loose depth unless otherwise specified. Before compaction and as needed, moisten or aerate each layer as necessary to facilitate compaction to the required density. Do not place backfill or fill material on surfaces that are muddy, frozen, or covered with ice.
1. Place fill and backfill against in confined areas such as trenches not easily accessible by larger compaction equipment, in maximum six inch thick loose depth layers.
 2. For large fill areas, the layer thickness may be modified by the Engineer at the Contractor's written request, if in the Engineer's judgment, the equipment used is capable of compacting the fill material in a greater layer thickness. This request will include the type and specifications of compaction equipment intended for use.
- D. Under Exterior Concrete Work:
1. Up to Subgrade Surface Elevation: Place selected fill when fill or backfill is required.
 2. Subbase Material: Place 12 inches of select granular material over subgrade surface.
- E. Under Pavements:
1. Up to Subgrade Surface Elevation: Place selected fill as specified herein when fill or backfill is required.
 2. Subbase Material: Place as indicated.

- F. Landscaped Areas: Place suitable material when required to complete fill or backfill areas up to subgrade surface elevation. Do not use material containing rocks over four inches in diameter within the top 12 inches of suitable material.
- G. Plastic Pipe in Trenches: Place cushion material a minimum of six inches deep under pipe, 12 inches on both sides, and 12 inches above top of pipe. Complete balance of backfill as specified.
 - 1. Trench in Rock: Place a minimum six inch deep bed of cushion material under pipe.
- H. Backfill material will be paid on a unit price per cubic yard basis. The quantity of backfill material placed will be determined by comparing the surfaces of pre- and post-backfill topographic surveys (i.e. bottom of excavation elevations compared to the final grade elevations).

3.02 COMPACTION

- A. The Contractor shall be responsible for providing all materials, equipment, and labor for compaction testing of all placed materials (No. 2 Crushed Stone, No. 1 Crushed Stone, general backfill, etc.) Placed material shall be compaction tested as specified unless otherwise approved by the Engineer.
 - 1. Compact each layer of fill and backfill for the following area classifications to the percentage of maximum density specified below and at a moisture content suitable to obtain the required densities, but at not less than three percent drier or more than two percent wetter than the optimum content as determined by ASTM D 698 (Standard Proctor)
 - a. Pond and Excavation areas: 90 percent
 - b. Temporary Structures (entire area within ten feet outside perimeter): 95 percent.
 - c. Landscaped Areas: 90 percent.
 - d. Pavements: 95 percent.
 - e. Pipes and Tunnels: 95 percent.
 - f. Pipe Bedding: 95 percent.
 - 2. When the existing ground surface to be compacted has a density less than that specified for the particular area classification, break up and pulverize, and moisture condition to facilitate compaction to the required percentage of maximum density.
 - 3. Moisture Control:

- a. Where fill or backfill must be moisture conditioned before compaction, uniformly apply water to the surface and to each layer of fill or backfill. Prevent ponding or other free water on surface subsequent to, and during compaction operations.
 - b. Remove and replace, or scarify and air dry, soil that is too wet to permit compaction to specified density. Soil that has been removed because it is too wet to permit compaction may be stockpiled or spread and allowed to dry. Assist drying by discing, harrowing or pulverizing, until moisture content is reduced to a value which will permit compaction to the percentage of maximum density specified. Amendment may be proposed by Contractor with approval by Engineer.
- 4. If a compacted layer fails to meet the specified percentage of maximum density, the layer will be recompacted and retested. If compaction cannot be achieved the material/layer will be removed and replaced. No additional material may be placed over a compacted layer until the specified density is achieved.
- B. Open graded Stone (No. 1 crushed stone, etc): Place material in maximum twelve inch lifts. Each lift shall be raked smooth and compacted through several passes of a vibratory roller or approved compaction equipment by Engineer. Compaction testing is **not** required. Limits of open grading stone backfill shall not be placed from 0 – 2 feet below proposed ground surface.
- C. All compaction results will be provided to the Engineer and reviewed by the Engineer for acceptance.

3.03 FIELD QUALITY CONTROL

- A. Compaction Testing: Notify the Engineer at least three working days in advance of all phases of filling and backfilling operations. Compaction testing will be performed as specified herein and as required by the Engineer to ascertain the compacted density of the fill and backfill materials unless otherwise directed by the Engineer. Compaction testing will be performed on certain layers of the fill and backfill as specified herein. If a compacted layer fails to meet the specified percentage of maximum density, the layer will be recompacted and will be retested. No additional material may be placed over a compacted layer until the specified density is achieved.

END OF SECTION

SECTION 02240

TRANSPORTATION AND DISPOSAL

PART 1 GENERAL

1.01 DESCRIPTION

- A. The Contractor has the option of setting up an on-site scale for general measurement and internal QA/QC purposes to meet local roadway weight requirements, or use an off-site certified scale. If an on-site scale is chosen, the specifications below must be met; if an off-site certified scale is used, the deliverables (relative to the scale) discussed below must be submitted (i.e., certification, weight tickets).
- B. The EPA considers ALL of the PCB waste discussed included for disposal in this Contract, regardless of concentration, to be TSCA-regulated. This does not mean that all excavated material has to be disposed of at a TSCA-permitted facility; it means that all PCB waste, whether or not it is above 50 parts per million (ppm), is subject to EPA's cleanup regulations. This is pursuant with the definition of PCB Remediation Waste in 40 CFR 761.3
- C. The Contractor shall properly transport and dispose of all items, including solid, hazardous/TSCA waste under EPA ID No. NYR000086603 in accordance with 40 CFR 761.61 and non-hazardous wastes removed from the site, oversized clearing and grubbing materials, concrete, sediments, etc. to appropriate disposal facilities unless otherwise directed by the Engineer. This includes the wastes generated by the Contractor. The Contractor shall be responsible and will be held accountable for assuring that all sampling, analysis, transportation, and disposal requirements of federal, state, and local governments are complied with and properly documented. TSCA/hazardous waste is any material having detected PCB concentrations equal to or greater than 50 parts per million.
- D. Protection of work to remain.
- E. If an on-site scale is used, delivery and set-up of scale including calibration, weight indicator and ticket printer.
- F. Certification of scale by Chautauqua County Bureau of Weights and Measures.
- G. Employing a trained weigh master familiar with the scale provided.
- H. Repair and maintenance of the scale for the duration of the work specified under this Project.
- I. Providing proper foundations and ramps for the scale in accordance with the manufacturer's recommendations and local requirements.

- J. Removal of scale, foundations, and ramps once the Engineer determines that the exclusion zone has been remediated.

1.02 RELATED SECTIONS

- A. Section 01425: Sampling
- B. Section 02220: Demolition of Structures
- C. Section 02241: Rock Removal
- D. Section 02810: Decontamination

1.03 REFERENCES

- A. The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.
 - 1. Code of Federal Regulations (CFR)
 - a. 40 CFR 262 Standards Applicable to Generators of Hazardous Waste
 - b. 49 CFR 172 Tables, Hazardous Material Communication Requirements, and Emergency Response Information Requirements
 - c. 40 CFR 761.50 Protection of the Environment, Toxic Substance Control Act (TSCA) – Applicability
 - d. 40 CFR 761.60 Protection of the Environment, Toxic Substance Control Act (TSCA) – Disposal Requirements
 - e. 40 CFR 761.61 Protection of the Environment, Toxic Substance Control Act (TSCA) – PCB Remediation Waste
 - f. 40 CFR 761.65 Protection of the Environment, Toxic Substance Control Act (TSCA) - Storage for Disposal
 - 2. Codes, Rules, and Regulations of the State of New York (NYCRR)
 - a. 6 NYCRR Part 364 Waste Transportation Permits
 - b. 6 NYCRR Part 372 Hazardous Waste Manifest System and

1.04 SUBMITTALS

- A. **Transportation Plan:** The Contractor shall submit a site specific Transportation Plan to the Engineer prior to the start of work for review and approval. This shall include, but not be limited to,:
 - 1. Type and number of vehicles used
 - 2. Travel Routes and times
 - 3. Copies of transportation permits.
 - 4. On-site truck scale shop drawing
 - 5. Detailed list of the codes, rules and regulations which are understood to govern the Work. This list must cite specific title, chapter, and section of the citation.
 - 6. Listing of licenses or permits issued by government agencies authorizing the handling of the waste by the qualified Company, transporter, and operator of the disposal facility.
- B. The Contractor shall submit to the Engineer information regarding proposed facilities for disposal of each type of waste. All proposed facilities must be permitted. Information submitted shall include, but not be limited to:
 - 1. Name;
 - 2. Owner;
 - 3. Type of facility/permit;
 - 4. Contact person, phone number;
 - 5. Location;
 - 6. Hours of operation; and
 - 7. Copies of permits.
- C. Detailed step by step procedure indicating how the Work is to be accomplished. Procedure shall also include information for off-site Work, such as:
 - 1. Method of disposal.
 - 2. Owner and operator of the disposal facility.

3. Location of the disposal facility.
 4. Method of transporting to the disposal facility.
- D. Qualified Company Data:
1. Name, address, and telephone number.
 2. Brochure explaining services offered.
 3. Experience directly applicable to the required services.
 4. Type and listing of equipment proposed to be used for the Work.
- E. Records
1. Written acceptance of waste profile from TDSF.
 2. Hazardous Waste Manifests
 3. Decontamination Certificates
 4. Submit written confirmation from TSDF of acceptance of waste.
 5. Profile sampling results.
 6. Manifests after permanent disposal
 7. Certificates of disposal for non-hazardous waste.
 8. Signed bills of lading for salvaged or recycled materials.

1.05 PERMITS AND REGULATIONS

- A. The Contractor shall comply with all federal, state, and local regulations regarding transportation and disposal of hazardous and nonhazardous material. These include, but are not limited to:
1. Trucks used for transportation of hazardous material for disposal off site shall be permitted pursuant to 6 NYCRR Part 364;
 2. Vehicle operator possession of a commercial driver's license with hazardous materials endorsement (if applicable);
 3. Registration of vehicle as a hazardous waste carrier (if applicable);
 4. Utilization of shipping papers and/or hazardous waste manifest will be completed in accordance with 40 CFR 262.20, 40 CFR 761, Subpart K – PCB Waste Disposal Records and Reports, and 6 NYCRR Part 372;
 5. Proper marking and placarding of vehicles.
 6. Placement of emergency response procedures and emergency telephone numbers in vehicle, and operator familiarity with emergency response procedures (see Minimum Health and Safety Requirements, attached)
 7. Compliance with load height and weight regulations.

1.06 DISPOSAL FACILITIES

- A. Facilities must have valid Federal/state permits appropriate for the waste being disposed of. Permits must be valid during the entire project period.
- B. Facilities must be in good legal standing with no significant violations, corrective actions, or other environmental conditions that could affect satisfactory operation.
- C. The disposal facility must comply with policies adopted by the Department with respect to off-site disposal of waste.
- D. Prior to shipment of hazardous wastes off the site, the Contractor shall confirm by written communication from the designated TSDF that it is authorized, has the capacity, and will provide or assure that the ultimate disposal method is followed for the particular hazardous waste on the manifest.
- E. RCRA Wastes
 - 1. The facility must have an RCRA Permit or RCRA Interim Status for RCRA wastes.
 - 2. The facility must not have any significant RCRA violations or other environmental conditions that could affect its satisfactory operation.
 - a. Significant violations include Class 1 RCRA violations as defined in EPA's RCRA Enforcement Response Policy dated December 1984, including but not limited to groundwater, closure, post closure, and financial violations.
 - b. Other environmental conditions include those conditions affecting the satisfactory operation of the facility and violations of state and/or federal laws other than RCRA.
 - c. Under limited circumstances, EPA Administrator may allow disposal of hazardous substances at a RCRA facility having significant RCRA violations or other environmental conditions affecting satisfactory operation, providing that the facility owner or operator has entered into a consent order or decree to correct the problems, and disposal only occurs within the facility at a new or existing unit that is in compliance with RCRA requirements.
 - 3. Landfill disposal must be in a unit meeting applicable RCRA minimum technical requirements.
 - a. Current RCRA minimum technical requirements for land disposal include the use of a double liner system.

- b. Under limited circumstances (low waste toxicity, mobility, and persistence), EPA may approve the use of a single-lined land disposal unit for RCRA wastes where use of such a unit adequately protects public health and the environment.

F. TSCA/Hazardous Wastes (PCBs with Concentrations greater than 50 ppm)

- 1. The facility must have a current TSCA permit in accordance with 40 CFR 761.77;
- 2. The facility must not have any significant violations, corrective actions, or other environmental conditions that could affect its satisfactory operation.
- 3. All TSCA wastes generated at the Site will be stored in Accordance with 40 CFR 761.50(c) - Storage and Disposal and 40 CFR 761.65 – Storage for Disposal.
- 4. All TSCA wastes to be disposed of from the Site will be sampled and disposed of in accordance with 40 CFR 761.60 – Disposal Requirements, 40 CFR 761.61 – PCB Remediation Waste, and 40 CFR 761.62 – Disposal of PCB Bulk Product Waste.
- 5. All TSCA wastes generated at the site will be disposed of in a TSCA approved disposal facility as described under 40 CFR 761.75 – Chemical Waste Landfills.

G. TSCA Wastes (PCBs with Concentrations less than 50 ppm)

- 1. The facility must have a current TSCA permit in accordance with 40 CFR 761.77;
- 2. The facility must not have any significant violations, corrective actions, or other environmental conditions that could affect its satisfactory operation.
- 3. The disposal of PCB waste at levels less than 50 parts per million shall comply with provisions stated in 40 CFR 761.61(a)(5)(i)(B)(2)(ii).

H. Non-hazardous Wastes

- 1. The facility must have a state permit, if applicable.
- 2. The facility must be permitted in good standing with applicable agency regulatory requirements.

PART 2 PRODUCTS

2.01 MATERIALS AND EQUIPMENT

- A. All equipment supplied shall be in good working condition. Equipment and machinery delivered to the site, including haul trucks that have visible oil or hydraulic fluid leaks, will not be allowed on site until satisfactorily repaired. The Contractor is responsible for the cleanup of any oil or hydraulic fluid spills at the Contractor's expense.
- B. The Contractor shall not allow soil to be tracked off site at any time during the project. Visible soil tracks on streets will not be allowed. The Contractor shall take sufficient precautions to prevent loose soils from adhering to tire treads, wheel wells, etc. Any loose soil spread shall be cleaned up, at the direction of the Engineer.
- C. Trucks used for transportation of material for off-site disposal shall be water tight and permitted pursuant to 6 NYCRR Part 364. All trucks shall be covered prior to leaving the site.
- D. Portable Axle Scale. If an on-site scale is used, the Contractor shall provide a low profile, portable multi-axle scale Model AX900 as manufactured by Intercomp or approved equal. The portable axle scale shall provide equipment which conform to the following specifications:
 - 1. Two (2) high strength steel platforms with 2 ramps each,
 - 2. Weight bridge shall be 5-1/2 inch steel construction and TL x 32"W x 3-1/2" H,
 - 3. Overall Capacity shall be 60,000 lbs (30,000 lbs per platform),
 - 4. Axle Capacity shall be 60,000 lbs,
 - 5. A PT20 electronic indicator with 50 lbs gradations, indicating total axle weight,
 - 6. Scale shall be battery powered and be equipped with a 110 or 220 volt battery charger.
 - 7. Scale calibration shall be in accordance with the manufacturer's recommendations.
- E. Ticket Printer
 - 1. Ticket printer shall be of the same manufacturer as the truck scale and shall be fully compatible with the scale and weight indicator.
- F. Furnish materials which meet all applicable governmental agency codes, rules and regulations.

2.02 TRANSPORTATION

- A. Submit a Transportation Plan which includes:

1. Type, condition, and average daily number of vehicles to be used.
2. Travel routes and time restrictions.
3. Decontamination methods for vehicles, equipment, and containers for non-hazardous and hazardous/TSCA waste.
4. Emergency response plan.
5. A list of all shippers and their federal and state transporter ID numbers.
6. A list of proposed disposal facilities including name, address, telephone number, contact name, and federal/state permit numbers.

PART 3 EXECUTION

3.01 VEHICLE LOADING

- A. The Contractor shall provide all equipment, personnel, and facilities necessary to load waste materials in accordance with the regulatory requirements listed herein, and in accordance with the regulations of those states through which the Contractor plans to transport materials.

3.02 DECONTAMINATION

- A. Transport vehicles shall be decontaminated at the Decontamination Station (see Section 02810: Decontamination) upon leaving the Exclusion Zone at the site and again at the disposal facility as required.

3.03 MEASUREMENT

- A. Upon entering and leaving the site, the transport vehicle shall be weighed on a certified scale under the Engineer's supervision to determine the amount of material being removed from the site.
- B. A printed ticket with the time, date, and net weight of material being transported for disposal shall be obtained. A copy of this ticket shall be given directly to the Engineer as it is produced.
- C. Measured gross weight of the vehicle or calculated net weight of material outside the certified capacity of the scale will not be accepted by the Engineer and the Contractor shall not be reimbursed for the associated costs of material disposal above the certified capacity of scale.
- D. The Contractor shall off-load materials above the certified capacity of scale on site at no additional cost to the Department.

3.04 TRANSPORTATION

- A. Materials shall be transported only at the times and by the routes indicated in the approved Transportation Plan, unless permission is received by the Engineer to do otherwise. The Contractor shall observe the legal load limits.
- B. The Contractor shall be responsible for obtaining permits and authorizations necessary to use the selected shipping routes. Comply with restrictions imposed by local governmental agencies regarding use of the routes.
- C. Prior to shipment of hazardous/TSCA wastes off the site, the Contractor shall confirm by written communication from the designated TSDF that it is authorized, has the capacity, and will provide or assure that the ultimate disposal method is followed for the particular hazardous waste on the manifest. Additionally, the Contractor shall confirm by written communication from the designated transporter(s) that they are authorized to deliver the manifested waste to the designated disposal facility.
- D. The Contractor is not required to pay the Hazardous Waste Special Assessment (generator tax). Remedial work which generates hazardous waste from inactive hazardous waste disposal sites (as defined in 27-1301 of the Environmental Conservation Law (ECL)) are not subject to the special assessment "tax" because of the exemption found in 27-0923(3)(c) of the ECL. The Contractor remains responsible for paying any local and/or county taxes which may be applicable to the disposal of wastes from the remedial work.

3.05 SAMPLING

- A. The Contractor shall be responsible for all costs associated with sampling of wastes to be disposed of and analysis as may be required by the disposal facility (See Section 01425: Sampling).
- B. The contractor will provide copies of the results to the Engineer.

3.06 MANIFESTING

- A. The Contractor shall complete all required manifest forms and Bill of Lading forms for the Department for proper transportation and disposal of materials off site. Since there is no responsible party to act as the generator at this inactive hazardous waste disposal site, the Department has obtained the EPA-required generator identification number and the Department or its representative will sign all manifests for proper shipping. However, the Contractor shall be responsible and will be held accountable for assuring that all sampling, analysis, transportation, and disposal requirements of the TSDF, SWMF, POTW, federal, state, and local governments are complied with and properly documented. The EPA-required Generator Identification Number for the Altech site is: NYR000086603.
- B. Comply with 40 CFR 262 in completion and submittal of the Hazardous Waste Manifests. The Hazardous Waste Manifests for the transportation and disposal

of waste removed from the site shall include all information in accordance with 49 CFR 172.101.

- C. Notify the Engineer in writing a minimum of two weeks prior to the date(s) the manifests are ready to be signed.
- D. The Engineer will sign the special waste or hazardous waste manifest for the Department, which is the generator.
- E. Place on the manifest all information and data required by both the waste generator and transporter. The Contractor's hazardous waste specialist shall accompany each prepared manifest with written certification that the manifest has been filled out in compliance with accordance with all EPA, DOT, and state regulations.
- F. Provide the Engineer with two fully executed copies of each shipment manifested prior to shipping wastes off site.
- G. The Contractor is responsible for proper distribution of manifests and bills of lading.

3.07 TRUCK SCALE

- A. If onsite scale is set up, prior to transportation of materials for off-site disposal, the materials shall be weighed. The sequence of operation for truck weighing is as follows:
 - 1. The incoming empty truck proceeds to the weigh scale.
 - 2. The truck stops on the scale and is weighed without the driver in the truck; the empty weight is recorded.
 - 3. The truck exits the scale area and proceeds to the loading area.
 - 4. After being loaded, the truck proceeds to the decontamination pad and is decontaminated.
 - 5. After being decontaminated, the truck again proceeds to the weight scale.
 - 6. The truck stops on the scale and is weighed without the driver in the truck; the loaded weight is recorded.
 - 7. The truck exits the scale area.
- B. Calibration of scale shall be conducted at the frequency recommended by the scales manufacturer.
- C. The weight indicator and ticket printer shall be protected from weather and vandalism by being placed either in a suitable scale house or an office trailer.

- D. No weights will be accepted or paid for unless the Engineer witnesses the weighing and receives the associated weight ticket.
- E. The scale shall be located in an uncontaminated area. The Engineer must first approve of any location proposed.

3.08 REPORTING

A. Manifests

1. After the waste has been permanently disposed of, the Hazardous Waste Manifests shall be completed in accordance with 6 NYCRR Part 372 and submitted by the Contractor to the Engineer with a copy to be forwarded to the Department.
2. In accordance with 40 CFR 262.42, generator shall contact the transporter and TSD facility to determine the status of the HTW if the manifest is not returned to the generator within 35 days of the date waste was accepted by the initial transporter.
3. The generator shall file an exception report with EPA and NYSDEC if he has not received a completed copy of the manifest from the designated TSD facility with 45 days of the date the waste was accepted by the original transporter.
4. The Contractor shall be responsible for providing the generator with the information needed to complete the exception report.

B. Certificates of Disposal

1. Provide Certificates of Disposal for all wastes shipped off site.
2. The Certificates of Disposal shall be submitted to the Engineer within 180 days of the shipment of wastes off site.

C. Bill of Lading

1. Items and materials that have been recycled or salvaged shall only require a signed bill of lading or receipt of materials and quantity received.

END OF SECTION

SECTION 02241

ROCK REMOVAL

PART 1 GENERAL

1.01 RELATED SECTIONS

- A. Section 02230: Earthwork
- B. Section 02240: Transportation and Disposal

1.02 REFERENCES

- A. Comply with the applicable requirements of the Code of Federal Regulations Title 29 - Labor, Part 1926 Safety and Health Regulations for Construction (OSHA).

1.03 DEFINITIONS

- A. Rock: Limestone, sandstone, shale, granite, and similar material in solid beds or masses in its original or stratified position which can be removed only by blasting operations, drilling, wedging, or use of pneumatic tools, and boulders with a volume greater than 1.0 cu yd.
 - 1. Limestone, sandstone, shale, granite, and similar material in a broken or weathered condition which can be removed with an excavator or backhoe equipped with a bucket with ripping teeth or any other style bucket shall be classified as earth excavation.
 - 2. Masonry building foundations, whether indicated or not, shall be classified as earth excavation.

1.04 SUBMITTALS

- A. Rock Removal Procedure: Submit a detailed outline of intended rock removal procedure for the Engineer's review and approval. This submittal will not relieve the Contractor of responsibility for the successful performance of method used.
- B. Quality Control Submittals:
 - 1. Certificates: Competency affidavit required under Quality Assurance Article.
- C. Measurement data for quantities of rock removal.

1.05 QUALITY ASSURANCE

- A. Pre-Rock Removal Conference: Before the rock removal work is scheduled to commence, a conference will be called by Engineer at the site for the purpose of

reviewing the Contract Documents and discussing requirements for the Work. The conference shall be attended by the Contractor's Representative and the person supervising the rock removal operations for the Contractor.

1.06 PROJECT CONDITIONS

- A. Blasting and the use of explosive materials will not be permitted unless otherwise directed by the Engineer.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Backfill Materials and Other Related Earthwork: As specified in Section 02230.

PART 3 EXECUTION

3.01 SITE PREPARATION

- A. Schedule a site meeting with the Department and Engineer personnel to review the rock removal procedures in detail.

3.02 ROCK REMOVAL

- A. Remove rock as necessary for the installation of the Work. Make sufficient clearance, within the limits specified, for the proper execution of the Work.
- B. Place all rock in the soil staging area and dispose of as specified in Section 02240 Transportation and Disposal unless otherwise directed to use for backfill by Engineer.

3.03 FIELD QUALITY CONTROL

- A. Allow time for visual inspection of bottom of rock cut required for the Work.

3.04 DISPOSAL OF EXCESS AND UNSUITABLE MATERIALS.

- A. Remove from property and dispose of excess and unsuitable rock materials unless directed to use as backfill by Engineer.

END OF SECTION

SECTION 02330

SITE RESTORATION

PART 1 GENERAL

1.01 DESCRIPTION

- A. The Work specified in this Section consists of the labor, equipment, tools, materials, and services needed to perform all site restoration activities as specified herein or as shown on the Contract Drawings.

1.02 QUALITY ASSURANCE

- A. Provide prepackaged seed readily available to the public with quality and purity equal to product of O.M. Scotts and Son, Marysville, OH 43041. On-the-job or made-to-order mixes will not be accepted.

1.03 DELIVERY STORAGE AND HANDLING

- A. Deliver fertilizer in manufacturer's standard size bags or cartons showing weight, analysis, and the name of the manufacturer. Store in accordance with manufacturer's recommendations and as approved by Engineer.
- B. Store all seed at the site in a cool dry place as approved by the Engineer. Replace any seed damaged during storage.

1.04 RELATED SECTIONS

- A. Section 01425 – Sampling
- B. Section 02220 – Demolition of Structures
- C. Section 02230 – Earthwork

1.05 REFERENCES

- A. Division of Environmental Remediation (DER)-10/Technical Guidance for Site Investigation and Remediation.
- B. New York State Department of Transportation Standard Specifications

1.06 SCHEDULING

- A. Time For Seeding: Sow grass seed between April 1 and May 15th or between August 15th and October 15th, except as otherwise approved in writing by the Engineer.

PART 2 PRODUCTS

2.01 TOPSOIL

- A. Provide topsoil conforming to the following and in accordance with the above referenced DER-10:
1. Original loam topsoil, well drained homogeneous texture and of uniform grade, without the admixture of subsoil material and entirely free of dense material, hardpan, sod, or any other objectionable foreign material.
 2. Sample Topsoil in accordance with Section 01425 – Sampling.
 3. Containing not less than 4 percent not more than 20 percent organic matter in that portion of a sample passing a 1/4 inch sieve when determined by the wet combustion method on a sample dried at 105 degrees C.
 4. Containing a Ph value within the range of 4.5 to 7 on that portion of the sample that passes a 1/4 inch sieve.
 5. Containing the following gradations:

SIEVE DESIGNATION	PERCENT PASSING
1 inch	100
1/4 inch	97 - 100
No. 200	20 - 65 (of the 1/4 inch sieve)

2.02 FERTILIZER

- A. Fertilizer: Mixed commercial fertilizers shall contain total nitrogen, available phosphoric acid and soluble potash in the ratio of 10-6-4 (50% N/UF). 50% of total nitrogen shall be derived from ureaform furnishing a minimum of 3.5% water insoluble nitrogen (3.5% WIN). The balance of the nitrogen shall be present as methylene urea, water-soluble urea, nitrate and ammoniacal compounds.
- B. Other fertilizers meeting DOT Specification Section 713-03 Fertilizer can be used.

2.03 SEED

- A. Furnish fresh, clean, new-crop seed mixed in the proportions specified for species and variety, and conforming to Federal and State Standards.
- B. Acceptable material in a seed mixture other than pure live seed consists of nonviable seed, chaff, hulls, live seed of crop plants and inert matter. The percentage of weed seed shall not exceed 0.1 percent by weight.

- C. All seed will be rejected if the label indicates any noxious weed seeds.
- D. Type "A" seed mixture. Addition of a "starter fertilizer" for Type "A" seed.
 - 1. Contractor will obtain competitive price quotes for a Type "A" seed mixture.
 - 2. The Type "A" seed mixture is identified below.

Common Name	Variety	% of Mix	App. Rate/acre
Tall Fescue	KY-31	36	70.6
Orchard Grass	Pennlate	15	29.4
Creeping red fescue	Ensylva	20	39.2
Perennial ryegrass	Polly	25	49
Birds-foot trefoil*	Viking	4	7.8

*All leguminous seeds requiring inoculation will be previously inoculated before sowing. Inoculant will accompany the seed or certificate of inoculation will accompany the seed mixture.

- 3. Contractor will provide cost for and apply a turf starter fertilizer to the entire seeded area in accordance with the specifications herein and NYSDOT Standard Specifications.
- 4. Fertilizer will conform to current NYSDOT specification 713-03, Type 3 Fertilizer. Fertilizer may be either fluid or dry formation consisting of 10-6-4 NPK.
- 5. Fertilizer is to be applied to conform with current NYSDOT specification 610-3.01 and 610-3.02. Application rate will be 800 pounds per acre.
- 6. Submittals are required for seed, fertilizer and mulch for Department review and approvals before purchase.
- 7. Seed, Fertilizer and Mulch may be applied by hydraulic application methods in conformance with current NYSDOT specification 610-3.01.
- 8. Contractor may propose alternative seed mix which must be submitted in writing to Engineer for approval.

2.04 MULCH

- A. Dry Application, Straw: Stalks of oats, wheat, rye or other approved crops that are free of noxious weed seeds. Weight shall be based on a 15 percent moisture content.

PART 3 EXECUTION

3.01 GRADING

- A. Rough Grading: Trim and grade grass areas within the Contract Limit to a level of 4 inches below the finish grades indicated unless otherwise specified herein or where greater depths are indicated. Provide smooth uniform transition to adjacent areas.
- B. Finish Grading: Finish surfaces free from irregular surface changes, and as follows:
 - 1. Grassed Areas: Finish areas to receive topsoil to within 1 inch above or below the required subgrade surface elevations.

3.02 SPREADING TOPSOIL

- A. Perform topsoil spreading operations only during dry weather.
- B. To insure a proper bond with the topsoil, if required or directed harrow or otherwise loosen the subgrade to a depth of up to 3 inches before spreading topsoil.
- C. Spread topsoil directly upon prepared subgrade to a minimum compacted depth measuring 4 inches in areas to be seeded. Smooth out unsightly variations, bumps, ridges, and depressions that will hold water. Remove stones, litter, or other objectionable material. Finished surfaces shall conform to the contour lines and elevations indicated on the drawings or fixed by the Engineer.

3.03 PREPARATION FOR SEEDING

- A. Seed Bed: Scarify soil to a depth of 2 inches in compacted areas. Smooth out unsightly variations, bumps, ridges, and depressions that will hold water. Remove stones, litter, or other objectionable material.

3.04 FERTILIZING

- A. Apply 10-6-4 fertilizer evenly at the rate of 40 pounds per 1000 sq ft.

3.05 SEEDING

- A. Assume all risks when seed is sowed before approval of seed analysis.
- B. Do not seed when the wind velocity exceeds 5 miles per hour.
- C. Application Rate: 8 pounds per 1000 sq ft.
- D. Dry Application: Sow seed evenly by hand or seed spreader on dry or moderately dry soil.
- E. Hydroseeding: Apply specified mixture evenly. Reapply as needed or as directed by Engineer.

3.06 MULCHING

- A. Dry Application: Within 3 days after seeding, cover the seeded areas with a uniform blanket of straw mulch at the rate of 50 pounds per 1000 sq ft of seeded area.

3.07 ESTABLISHMENT OF VEGETATION

- A. Water and protect all seeded areas until final completion of the Contract is granted by the Department.

3.08 FINAL ACCEPTANCE

- A. Final acceptance of seeded areas will be granted when a uniform stand of acceptable grass is obtained, with a minimum of 95 percent coverage. Portions of the seeded areas may be accepted at various times at the discretion of the Engineer.
- B. Unacceptable seeded areas, dry application: Reseed as specified and fertilized at one-half the specified rate.

END OF SECTION

SECTION 02610

WELL INSTALLATION AND DECOMMISSIONING

PART 1 - GENERAL

1.01 DESCRIPTION

- A. The Work specified in this Section consists of the labor, equipment, tools, materials, and services needed to perform all monitoring well installation and decommissioning work as specified herein or as shown on the Contract Drawings.

1.02 REFERENCES

The publications listed below form a part of this Specification to the extent referenced. The publications are referred to in the text by basic designation only.

- A. American Society for Testing and Materials (ASTM):
 - 1. ASTM A53 - Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless.
 - 2. ASTM D1784 - Specification for Rigid PC Compounds and CPVC Compounds.
 - 3. ASTM D1785 - Specification for PVC Plastic Pipe, Schedules 40, 80, and 120.
- B. American Association for State Highway and Transportation Officials (AASHTO).
- C. New York State Department of Environmental Conservation (NYSDEC) CP-43 Monitoring Well decommissioning policy.

1.03 DEFINITIONS (Not Used)

1.04 SUBMITTALS

- A. Well Installation Projects: Submit list of well installation projects as described in Paragraph 1.05 14 days in Accordance with Section III.
- B. Manufacturer's Certificates of products used: Submit 14 days prior to shipment to the site to certify that pipe, fittings, and joint materials, manhole protection meet or exceed specified requirements.
- C. Gradation Curves: Submit gradation curves of backfill materials 14 days prior to shipment to the site.

1.05 QUALITY ASSURANCE

A. Contractor Qualifications:

1. The Contractor/Subcontractor shall have completed at least five similar well installation projects of similar types, depths, and quantities within the last 5 years.
2. The Contractor/Subcontractor shall be a well installer certified by the State of New York.

1.06 ENVIRONMENTAL REQUIREMENTS

- A. Contractor shall decommission wells in accordance with NYSDEC CP-43: Groundwater Monitoring Well Decommissioning Policy, dated November 3, 2009

1.07 SEQUENCING AND SCHEDULING (Not Used)

PART 2 - PRODUCTS

2.01 PIPE AND FITTINGS

- A. All pipe and fittings shall be fully integrated into components of the finished system. To the maximum practicable extent, the Contractor shall utilize products of a single manufacturer to ensure uniformity.
- B. Each length of pipe and fitting shall be marked by the manufacturer with the trade name, nominal size, material designation, and class.
- C. Pipe and fittings shall be manufactured from PVC which meets the requirements of ASTM D 1784.
- D. Pipe and fittings shall be 2-inch Schedule 40 PVC meeting the dimensions and tolerances specified in ASTM D1785.
- E. Slotted pipe shall be 0.010-inch machine slotted. 2-inch Schedule 40 PVC, slotted as shown on the Contract Drawings.
- F. All pipe joints shall be threaded unless otherwise specified or shown on the Contract Drawings. All joints shall be made in strict accordance with the manufacturer's recommendations.
- G. Where allowed, solvent cement for joining PVC pipe and fittings shall meet the requirements of ASTM D2564.

2.02 BACKFILL MATERIALS

A. Sand Filter Pack

1. The sand filter material shall conform to particle-size analysis as follows:

<u>U.S. Standard Sieve No.</u>	<u>Percent Passing</u>
No. 4	95-100
No. 6	80-100
No. 8	20-85
No. 10	5-35
No. 12	0-10
No. 14	0-5

B. Bentonite Pellets

1. The bentonite pellets shall be 1/4- to 3/8-inch diameter, high-swelling sodium bentonite.

C. Cement/Bentonite Mixture

1. Sealing grout used for well decommissioning and installation shall be a mixture of Portland cement and powdered bentonite (Aqua-Grout Catalyst/Benseal or equivalent).
2. The mixture shall consist of approximately 90 to 95 percent cement and 5 to 10 percent bentonite.

2.03 PROTECTION OF MONITORING WELLS

- A. Steel manhole insert and cover capable of supporting an H-20 loading surrounded by compacted select fill as described in Section 02230.
- B. Jersey barrier
- C. Precast concrete 2' x 3' blocks or approved equivalent.

PART 3 - EXECUTION

3.01 GENERAL

- A. Work shall not commence on this item until written approval of shop drawings, manufacturers' certificates, etc. are received by the Engineer.
- B. The Contractor shall follow the manufacturer's recommendations in unloading and stockpiling pipe material. Pipe shall never be dumped or dropped from a truck bed. Pipe shall be lifted and placed on the ground, or rolled down ramps. Pipe and other materials shall never be dragged along the ground. Pipe and fittings shall be stored in such a manner as to be protected and kept clean and dry.
- C. The Contractor shall stockpile material so as to provide even and complete support for the material to prevent crimping or other damage. Follow manufacturer's handling and storage procedures.
- D. All pipe, fittings, and appurtenances shall be carefully inspected in the field before installation. All pieces found to be defective, as determined by the Engineer, shall

not be installed. Such rejected materials shall be clearly tagged in such a manner as not to deface or damage them. Materials shall then be removed from the job site by the Contractor at his own expense. Results of shop tests, which are required in the Specifications, shall be submitted to the Engineer prior to installation of the materials for which such tests ordered.

3.02 BORING

- A. The driller shall keep boring logs, for submittal to the Engineer as drilling progresses unless otherwise directed by the Engineer. Logs shall indicate stratum/soil classifications, water levels, depth of strata, total depth drilled, and other pertinent data.
- B. The Contractor shall not perform drilling of the boring unless the Engineer is present to approve location and to witness operation.
- C. No well boring shall remain open at the end of the work day. At no time are open boreholes to be left uncovered and/or unattended.
- D. The Contractor shall be responsible for any grading, leveling, and/or towing, which may be necessary for movement of the drill rig on the property.
- D. Drill cuttings shall be used to backfill the boring hole in which they were removed from unless otherwise directed by the Engineer.
- E. Drilling operations for well installation shall be installed to depths indicated on the schedule specified herein, as on the Contract Drawings or as otherwise directed.

3.03 WELL CONSTRUCTION

- A. The slotted screened interval shall be set at the bottom of the boring and extend to the top of the water table. Annular space shall be backfilled with sand filter pack to height of 2 feet above the top of the specified interval. A bentonite seal shall be installed over filter pack and subsequently hydrated sufficiently to mitigate the potential for downhole grout contamination. Cement/bentonite grout shall be installed to approximately 1 foot below ground surface. Wells casings shall be above ground steel casing mounted with keyed-alike locks and accordance with the Contract Drawings.
- B. All pipe cuts shall be square and perpendicular to the center line of the pipe. All burrs, chips, etc., shall be removed from the pipe interior and exterior. Pipe with imperfections shall not be used.
- C. Pipe and pipe fittings shall be selected so that there will be as small a deviation as possible at the joints and so that inverts present a smooth surface. Pipe and pipe fittings which do not fit together to form a tight joint shall be rejected. All loose dirt and moisture shall be wiped from the exterior of the pipe and the interior of the pipe fitting.

- D. Pipe sections shall be joined by threaded joints. Alternatively, the Engineer may allow, at his discretion, the use of socket couplings joined together by solvent cement in accordance with ASTM D2855.
- E. Well casings shall be installed immediately after completion of the boreholes.
- F. The well pipe shall be installed plumb in the center of the borehole. Derricks, ropes, or other suitable equipment, or manual labor, shall be used for lowering the pipe into the well borings, subject to the approval of the Engineer.
- G. Ensure entire pipe is supported by the sand backfill in the hole prior to releasing the pipe. The well shall then be backfilled as previously specified on as indicated on the Contract Drawings.
- H. Backfilling of the borehole shall proceed immediately after setting the well pipe into place. The Contractor shall take all necessary precautions to maintain the well pipe vertically plumb during the backfill operation of the borehole. Care shall be taken during installation of backfill materials to prevent damage to the pipe.
- I. If the borehole collapses partially or completely during backfill operations, the Contractor may be required to redrill the borehole, at no additional cost to the Department, upon direction of the Engineer.

3.04 WELL PROTECTION CONSTRUCTION

- A. Install above ground steel mounted protective casing, as shown on the Contract Drawings using products specified herein.
- B. Contractor shall provide keyed alike locks and name plates for all newly installed and existing wells on-site. Remove existing well locks as needed or as indicated on schedule.

3.05 WELL DECOMMISSIONING

- A. The wells shall be pressure grouted and abandoned in place in accordance with the NYSDEC CP-43: Groundwater Monitoring Well Decommissioning Policy, dated November 3, 2009.
- B. Wells shall be completely filled and sealed with a cement/bentonite mixture as specified herein.
- C. The casing shall be cut off approximately five feet below the ground surface, corresponding to the elevation of the top of the cement/bentonite mixture.
- D. The remaining five feet shall be backfilled to the existing grade with excavated material unless otherwise directed.

- E. If pressure grouting is prevented due to casing blockage or breakage, the well shall be drilled through using a solid-stem auger and then the borehole shall be filled and sealed with the cement/bentonite mixture specified.

3.06 SCHEDULE FOR DECOMMISSIONING AND REINSTALLATION

Well ID	Location	Depth	Riser Diameter	Slotted Pipe	Casing	Comments
BR-2	50 feet NE of NE corner of pond	24 ft	2"	Sch 40, 0.010 inch	Steel Case Mounting	Lock to be replaced
Misc 1	TBD	20 ft	2"	Sch 40, 0.010 inch	Steel Case Mounting	Lock to be replaced
Misc 2	TBD	20 ft	2"	Sch 40, 0.010 inch	Steel Case Mounting	Lock to be replaced

END OF SECTION

SECTION 02810
DECONTAMINATION

PART I – GENERAL

1.01 DESCRIPTION

- A. The work covered in this section includes decontamination procedures for equipment and materials. See Section 01425-Sampling for sampling requirements.

1.02 RELATED SECTIONS

- A. Section 01425: Sampling
- B. Section 01500: Construction Facilities and Temporary Controls
- C. Section 02140: Dewatering
- D. Section 02230: Earthwork

1.03 SUBMITTALS

- A. Submittals for review and approval of the documents and information listed below:
 - 1. Contract Drawings showing details of decontamination pads and appurtenances;
 - 2. Method statements for containerization, removal and disposal of debris, PPE and miscellaneous items.
 - 3. Details of decontamination pad closure.
 - 4. Certificates of inspection and decontamination.
 - 5. Decontamination procedures for equipment, vehicles, and containers contacting PCB containing materials or materials potentially containing PCBs.
 - 6. Manufacturer data sheets of product used for decontamination (CAPSUR or equivalent).

1.04 GENERAL REQUIREMENTS

- A. Equipment decontamination pads shall be constructed in accordance with the Contract Drawings or as directed by the Engineer. The Contractor shall be responsible for all maintenance and repair of the decontamination pad as needed or as directed by the Engineer.
- B. All vehicles, recoverable equipment and materials used in the Work area and involved with contaminated material shall be decontaminated at the appropriate decontamination pad prior to leaving the site. Vehicles and equipment contacting clean soil only do not require decontamination but are required to be free of any material that has the potential

to be tracked offsite. Equipment contacted with contaminated groundwater shall be rinsed on the decontamination pad.

- C. Contaminated tools shall be washed and rinsed at the appropriate decontamination pad.

1.05 EQUIPMENT DECONTAMINATION PADS

- A. The Contractor shall be responsible for the installation of two equipment decontamination pads. One decontamination pad will be for the decontamination of equipment, vehicles, and containers that contact PCB impacted material and one for the decontamination of equipment, vehicles, and containers that contact non-PCB impacted material. The decontamination pads shall meet the following criteria:
 - 1. Adequate dimensions to contain wash water and debris obtained from the largest sized vehicles deployed in the Work area.
 - 2. Perimeter to be curbed with soil berm.
 - 3. Impervious medium (40-mil geomembrane) required to prevent seepage into the ground (See Section 02230 Earthwork for geomembrane specifications).
 - 4. Sump and pumping equipment/facilities adequate to pump decontamination water/rinse to water treatment system.
- B. Complete details of the decontamination pads shall be submitted to the Engineer for his approval, prior to commencement of the construction.
- C. The decontamination pad for equipment, vehicles, and containers that contact clean (non-PCB impacted) material, the collection sump shall be pumped out periodically and decontamination water shall be treated on-site in accordance with Section 02140-Dewatering.
- D. The decontamination pad for equipment, vehicles, and containers that contact PCB impacted material, the fluids or materials used during decontamination shall be collected and containerized for off-site disposal and an approved disposal facility.
- E. Decontamination pad, pump and sump shall be kept free of accumulations of debris and sediment and shall be washed down after each vehicle decontamination or as needed or directed. Debris and sediment shall be, removed and relocated to the soil staging area for disposal off-site by the Contractor.
- F. When no longer required, decontamination pad and appurtenances shall be demolished unless otherwise directed by the Department/Engineer. All equipment and materials from the pad shall be decontaminated, removed from the site and disposed of by the Contractor.

1.06 DECONTAMINATION OF EQUIPMENT AND MATERIALS CONTACTING NON-PCB MATERAILS

- A. Procedures for decontamination of equipment, vehicles, and materials in contact with non-PCB impacted materials only shall be included in the Contractor's Health and Safety Plan.

- B. Employees engaged in decontamination of equipment and materials shall wear protective equipment including disposable or non-disposable personal protective equipment consistent with the Contractor's Health and Safety Plan.
- C. A high pressure wash system shall be provided at the equipment decontamination pads and shall be suitably sized to provide a minimum pressure of 500 psi with 0.5 to 5 gallons per minute flow range and a nominal temperature of 140°F. Adequate water storage facilities shall be provided.
- D. Decontamination of contaminated vehicles and equipment shall take place on the equipment decontamination pad and shall consist of the removal of grease (if required) followed by high pressure water supplemented by detergents as appropriate. Special attention shall be paid to removal of material on and within the undercarriage, tracks and sprockets of crawler equipment, and the undercarriage, tires and axles of trucks and rubber-tired mounted equipment.
- E. The Contractor shall ensure, through the use of barrier placement or other methods, that water sprays or other decontamination materials are contained within the decontamination pad.
- F. Large items and materials, which the Engineer has directed the Contractor to dispose off-site, shall be decontaminated with high-pressure water supplemented by detergents, as appropriate. The Contractor shall submit detailed method statements for review and approval.
- G. Waste water generated from the decontamination process shall be contained for treatment at the onsite water treatment facility prior to discharge from the site.
- H. The Contractor shall periodically evaluate the effectiveness of the decontamination and contaminant control measures employed.

1.07 DECONTAMINATION OF EQUIPMENT AND MATERIALS CONTACTING PCB CONTAINING MATERIALS

- A. Procedures for decontamination of equipment, vehicles, and materials in contact with PCB containing materials or material that may contain PCBs shall be included in the Contractor's Health and Safety Plan. The decontamination procedures shall be performed in accordance with 40 CFR 761.79(b). The selected decontamination procedure as allowed in 40 CFR 761.79(b) will attain the standard of ≤ 10 micrograms PCBs per 100 square centimeters ($\leq 10 \mu\text{g}/100 \text{ cm}^2$) as stated in 40 CFR 761.79(b)(3)(i)(A); using a standard wipe test as described in 40 CFR 761.123. This procedure will be performed onsite, at the location of the proposed decontamination pad, for equipment or vehicles leaving the site and at the close of the project. The process will be repeated, as necessary, to decontaminate equipment that has or had the potential to contact PCB contaminated soil/sediment/liquids during the remediation project.
- B. The contractor shall use appropriate solvents, such as CAPSUR[®] or an approved equivalent, for the decontaminating process. The solvents will be applied per the manufacture's recommendations in accordance with 40 CFR 761.79(h). Adequate fluid and/or material storage facilities shall be provided.
- C. Decontamination of vehicles and equipment shall take place on the PCB designated equipment decontamination pad and shall consist of washing the equipment or vehicles

with the decontamination solvent followed by a rinse stage of a high-pressure, hot-water power-wash. Special attention shall be paid to removal of material on and within the undercarriage, tracks and sprockets of crawler equipment, and the undercarriage, tires and axles of trucks and rubber-tired mounted equipment. After the decontamination wash/rinse, wipe samples will be collected from the decontaminated surfaces to provide a representative residual PCB concentration. A wipe sample will consist of at least one (1) sample collected from each unique portion of equipment (bucket/tracks) in contact with soil/sediment/liquid from the excavation area. An additional sample will be collected from another unique surface of the equipment where there is potential PCB accumulation.

- D. The selected decontamination procedure shall attain a concentration of ≤ 10 micrograms PCBs per 100 square centimeters ($\leq 10 \mu\text{g}/100 \text{ cm}^2$). The decontamination process will be repeated, as necessary, until the required PCB concentration is achieved.
- E. The Contractor shall ensure, through the use of barrier placement or other methods that fluids used for decontaminating or other decontamination materials are contained within the decontamination pad. The rinsate and/or decontamination materials will be collected and containerized for off-site disposal.
- F. Employees engaged in decontamination of equipment and materials shall wear protective equipment including disposable or non-disposable personal protective equipment consistent with the Contractor's Health and Safety Plan.

1.08 FINAL APPROVAL

- A. Prior to removal from the Project Site, all decontaminated equipment and materials shall be inspected and approved by the Engineer.
- B. Removal of materials and equipment from the site shall be performed with the approval of the Engineer.

END OF SECTION

SECTION 15111

VALVES

PART 1 GENERAL

1.01 DESCRIPTION

- A. The Work specified in this Section consists of the labor, equipment, tools, materials, and services needed to install and maintain all valves included for dewatering of pond, operation of dewatering system, on-site treatment system, etc necessary complete all excavations and trenches specified herein or as shown on the Contract Drawings.

1.02 RELATED SECTIONS

- A. Section 02140 – Dewatering
- B. Section 15132 – Pumps and Accessories
- C. Section 15133 – Pipes and Fittings

1.03 SUBMITTALS

- A. Product Data: Manufacturer's catalog sheets and specifications for each valve type.
- B. Valve Schedule: List type of valve, manufacturer's model number, and size for each service application.

PART 2 PRODUCTS

2.01 VALVES - GENERAL

- A. Valve Standardization: Valves from one or more manufacturers may be used, however valves supplied for each specific valve type shall be the product of one manufacturer.
- B. Valves shall be first quality, free from all imperfections and defects, with body markings indicating manufacturer and rating.
- C. Valve parts of same manufacturer, size and type shall be interchangeable.
- D. Manually operated gate valves shall be of rising stem type, unless otherwise specified.
- E. Size valves the same size as the piping in which they are installed, unless specified otherwise.

2.02 CHECK VALVES

- A. Spring Check: Material of construction: PVC, 100 psi minimum working pressure, slip connection, with stainless steel spring

2.03 BALL VALVES

- A. Socket Ball Valves: Material of construction: PVC with EPMD seats and seals, 100 psi minimum working pressure.

PART 3 EXECUTION

3.01 INSTALLATION

- A. General: Install valves at locations noted on the Contract Drawings or specified.

END OF SECTION

SECTION 15132

PUMPS AND ACCESSORIES

PART 1 - GENERAL

1.01 DESCRIPTION

- A. The Work specified in this Section consists of the labor, equipment, tools, materials, and services needed to install and maintain all pumps included for dewatering of pond operation of dewatering system, on-site treatment system, etc necessary complete all excavations and trenches specified herein or as shown on the Contract Drawings.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Section 02140: Dewatering.
- B. Section 15133: Piping.
- C. Section 15111: Valves

1.03 SUBMITTALS

- A. Product Data:
 - 1. Catalog sheets, specifications, installation instructions, including pump capacity curve (capacity vs. head) and electrical schematics.
 - 2. Catalog sheets, specifications, and installation instructions for the sump pump and appurtenances.

PART 2 - PRODUCTS

2.01 SUMP PUMP

- A. Type: Completely submersible, automatic operation, with a screenless suction, non-clog impeller, and lifting bail.
 - 1. Motor Requirements:
 - a. Equip submersible motor with built-in thermal overload protection.
 - b. Power Requirements: Design to operate on a single phase, 60 Hertz, 120 volt circuit (NEMA standard motor voltage 115 V).
 - c. Power Cord: Waterproof, oil resistant, terminating with a 3 prong grounding type cord cap. Length as required.

- d. Pump shall be capable of pumping 20 gallons per minute at a total dynamic head of 30 feet.

B. Materials:

1. Mechanical Seal: Dual seal for double leak protection.
2. Impeller: Polyurethane.
3. Strainer: EPDM or approved equivalent
4. Exterior fasteners: Stainless steel or approved equivalent.

C. Liquid Temperature: Design to handle liquids up to 95 degrees F maximum.

2.02 PUMP CONTROLS AND ACCESSORIES

- A. Floats: Shall be constructed of corrosion resistant materials, with components designed for installation on the pump completely waterproof, including oil resistant grounding type power cord.
1. Type: Integral with sump pump.
 2. Type: Designed for automatic activation. Furnish with stainless steel mounting clamps and stainless steel fasteners.
 3. Power: Electrical Requirements: 120 VAC. 50/60 Hz, Single Phase
 4. Temperature: Shall be capable of operating in minimum temperatures of 95 degrees F.
 5. Power Cord: 50 feet minimum piggy-back plug.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Install the Work of this Section in accordance with the manufacturer's printed installation instructions unless otherwise specified.
- B. Install float water level control device at proper elevation to produce specified sump drawdown. Secure control device to pump discharge pipe with clamps or to side of well point riser with corrosion resistant brackets and fasteners.
- C. Install sump cover, seal tight.

3.02 PUMP OPERATION

- A. Pump System: Set level controls to start pumps when liquid depth in well point reaches 16 inches and stop pump when liquid depth is 5 inches.

3.03 FIELD QUALITY CONTROL

- A. Test sump pump system for proper operation at specified liquid depths.

END OF SECTION

SECTION 15133
PIPE AND FITTINGS

PART 1 – GENERAL

1.01 RELATED WORK SPECIFIED ELSEWHERE

- A. The Work specified in this Section consists of the labor, equipment, tools, materials, and services needed to install and maintain all piping included for dewatering of pond operation of dewatering system, on-site treatment system, etc necessary complete all excavations and trenches specified herein or as shown on the Contract Drawings.

1.02 RELATED SECTIONS

- A. Section 02140 - Dewatering
- B. Section 15111 - Valves
- C. Section 15132 - Pumps and Accessories

1.03 REFERENCES

- A. ASTM D1785: Standard Specification for Poly(Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80, and 120
- B. ASTM D2466: Standard Specification for Poly(Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 40
- C. ASTM D2564: Standard Specification for Solvent Cements for Poly(Vinyl Chloride) (PVC) Plastic Piping Systems
- D. ASTM F656: Standard Specification for Primers for Use in Solvent Cement Joints of Poly(Vinyl Chloride) (PVC) Plastic Pipe and Fittings
- E. ASTM D3035: Standard Specification for Polyethylene (PE) Plastic Pipe (DR-PR) Based on Controlled outside Diameter
- F. ASTM D3350: Standard Specification for PE Pipe and Fittings Materials

1.04 SUBMITTALS

- A. Product Data:
 - 1. Catalog sheets and specifications indicating manufacturer name, type, applicable reference standard, schedule, or class for specified pipe and fittings.

2. Material Schedule: Itemize pipe and fitting materials for each specified application in Pipe and Fittings Schedule in Article 3 of this Section.
Where optional materials are specified indicate option selected.

PART 2 - PRODUCTS

2.01 FLEXIBLE PIPING AND FITTINGS

- A. Water Suction/Discharge Hose: 80 psi minimum pressure
- B. Minimum Bed Radius: 6 inches
- C. Hose Clamps:
 1. Double Bolt, Malleable Iron
 2. Minimum Torque: 20 Foot-pounds
- D. Cam and Groove Couplings:
 1. Acceptable materials: Aluminum, stainless steel, iron, polypropylene
 2. Minimum Pressure Rating: 100 psi

2.02 POLYVINYL CHLORIDE (PVC) PIPING AND FITTINGS

- A. Pipe: Schedule 40, ASTM D1785
- B. Fittings and Couplings:
 1. Socket Fittings and Couplings: ASTM D2466.

2.03 POLYETHYLENE (PE) PIPING AND FITTINGS

- A. Pipe:
 1. Per ASTM D3035
- B. Fittings and Couplings:
 1. Polyethylene Plastics Pipe and Fittings Materials: ASTM D3350.

2.04 JOINING AND SEALANT MATERIALS

- A. PVC Cement and Primer:
 1. E-Z Weld Low VOC Cement or approved equivalent; ASTM D2564.
 2. E-Z Weld Low VOC Primer or approved equivalent; ASTM F656.
 3. Thread sealants for potable water shall be NSF approved.

PART 3 - EXECUTION (Not Used)

3.01 INSTALLATION

- A. Install piping at approximate locations indicated.
- B. Make allowances for expansion and contraction.
- C. Allow for a minimum of one inch free air space around pipe or pipe covering, unless otherwise specified.
- D. Cut pipe and tubing ends square; ream before joining.
- E. Threading: Use American Standard Taper Pipe Thread Dies.

END OF SECTION

SECTION 16001
ELECTRIC WORK

PART 1 – GENERAL

1.01 DESCRIPTION

- A. The Work specified in this Section consists of the labor, equipment, tools, materials, and services needed to perform all electrical work in order to complete all remediation activities and as specified herein or as shown on the Contract Drawings.

1.02 RELATED SECTIONS

- A. Section 01500: Construction Facilities and Temporary Controls
- B. Section 02140: Dewatering
- C. Section 16002: Service Grounding and Bonding

1.03 QUALITY ASSURANCE

- A. Qualifications: The persons performing the Work of this Section and their supervisor shall be personally experienced in electrical work and shall have been regularly performing such work for a minimum of 3 years.
- B. UL Listing: Equipment and materials for which Underwriters' Laboratories, Inc. (UL) provides product listing service shall be listed and bear the listing mark.
- C. Underwriter's Certificate: A New York Board of Fire Underwriters inspection or certificate is not required.
- D. Unless otherwise specified, equipment or material of same type, used for the same purpose shall be products of same manufacturer. All material shall be new and of the latest design of manufacturer providing equipment or material.
- E. Equipment and accessories not specifically described or identified by manufacturer's catalog numbers shall be manufactured in conformity with NEMA, IEEE, or other applicable technical standards and shall have neat and finished appearance.
- F. Install equipment in neat and workman like manner; align, level, and adjust for satisfactory operation; install so that parts are easily accessible for inspection, operation, maintenance,

1.04 SUBMITTALS

- A. Prior to obtaining any material in connection with electrical work, detailed shop

drawings shall be submitted in accordance with each section. In addition to equipment data, shop drawings shall be submitted for review which shows proposed electrical equipment layout, grounding system layout, interconnecting wiring, and elementary diagrams.

1.05 SAFETY

A. Construction Safety

1. Contractors shall furnish and place proper guards for prevention of accidents, provide all trench shoring, scaffolding, shielding, dust/fume protection, mechanical/electrical protection, special grounding, safety railings, barriers, or other safety features required to secure safety of life or property. Provide and maintain sufficient lights during night hours to secure such protection.
2. Contractors shall furnish and install all necessary safety warning devices such as flags, signs, etc. as required for their work.
3. Overhead work shall be done only if area below is clear of all personnel.

B. Electrical Safety

1. Any energized electrical system panel board cover, removed in processing a job, shall be replaced immediately any time the job site is to be unattended by the Contractor personnel.
2. All electrical work for providing temporary power and lighting for construction shall be in accordance with NEC and OSHA.

1.06 PROTECTED WORK

A. General

1. All electrical work in finished areas, such as temporary offices, shall be concealed in walls, ceiling, or floor slabs. Electrical devices shall be recessed, flush mounted.
2. The enclosures for electrical equipment shall be as scheduled in the section entitled Enclosures.
3. Plywood backing panels for interior electrical equipment shall be 3/4-inch flame retardant treated, standard grade interior type plywood with exterior glue. Exterior plywood panels shall be 3/4-inch painted marine plywood.

B. Hazardous Areas

1. In the areas designated as Hazardous and where explosion-proof work is shown or specified, all work shall meet the requirements of the NEC for Class 1 Division 1 locations.

C. Wet Locations

1. Where installed outdoors or in areas designated as wet locations, all work shall meet the requirements of the NEC for wet locations.

D. Corrosive Areas

1. Where installed in corrosive atmospheres all materials and devices shall be suitable for use in intended environment.

1.07 DELIVERY, HANDLING AND STORAGE OF MATERIAL

A. General

1. Materials and equipment shall be delivered to the site of the work in their original containers, and containers shall not be opened until inspected by the Engineer.
2. Electrical equipment shall at all times during construction be adequately protected against mechanical injury or damage by water.
 - a. If any apparatus has been damaged, such damage shall be made good by the Contractor at his own expense.
 - b. If any apparatus has been subject to possible injury by water, it shall be thoroughly dried and put through such special tests as will be directed by the Engineer, at the cost and expense of the Contractor, or at the discretion of the Engineer shall be replaced by the Contractor at his own expense.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Raceways For Concealed Work: Rigid ferrous metal conduit, intermediate ferrous metal conduit, or electrical metallic tubing.
- B. Raceways For Exposed Work: Mono-System Inc.'s, Wiremold Co.'s, or , Thomas & Betts Corp.'s surface metal raceway systems or equals.
- C. Conductors: Copper, insulated with Type FEP, THHN, THW, THW-2, THWN, THWN-2, XHH, XHHW, XHHW-2 insulation rated 600 volts.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Remove all existing exposed raceways, BX cables, outlet boxes, etc., superseded by the Work of this contract whether shown on the drawings or not. Provide blank covers on abandoned recessed boxes.

3.02 INSTALLATION

- A. Install the Work in accordance with the requirements of NFPA 70 - National Electrical Code.

END OF SECTION

SECTION 16002

SERVICE GROUNDING AND BONDING

PART 1 GENERAL

1.01 SUBMITTALS

- A. The Work specified in this Section consists of the labor, equipment, tools, materials, and services needed to perform all service, grounding and bonding work in order to complete all remediation activities and as specified herein or as shown on the Contract Drawings.

1.02 RELATED SECTIONS

- A. Section 16001: Electrical Work

1.03 SUBMITTALS

- A. Product Data: Catalog sheets, specifications and installation instructions.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Ground Clamps (Cable to Pipe): Blackburn/T&B Corp.'s GUV, Framatome Connectors/Burndy Corp.'s GAR, GD, GP, GK, or OZ/Gedney Co.'s ABG, CG.
- B. Ground Clamps (Cable to Rod): Blackburn/T&B Corp.'s GG, GGH, JAB, JABH, GUV, Dossert Corp.'s GN, GPC, Framatome Connectors/Burndy Corp.'s GP, GX, GRC, or OZ/Gedney Co.'s ABG.
- C. Ground Lugs: Copper, one or 2 hole style (to suit conditions), long barrel; Anderson/Hubbell's VERSAtile VHCL, Blackburn/T&B Corp.'s Color-Coded CTL, LCN, Framatome Connectors/Burndy's Hylug YA, Electrical Products Div./3M Scotchlok 31036 or 31145 Series, Ideal Industries Inc.'s CCB or CCBL, or Thomas & Betts Corp.'s 54930BE or 54850BE Series.
- D. Exothermic Type Weld: Erico Inc.'s Cadweld Process, or Furseweld/T&B Corp.'s Exothermic Welding System.
- E. Compression Connectors: Amp Inc.'s Ampact Copper Grounding System, or Burndy Corp.'s Hyground System.
- F. Rod Electrodes: Copper clad (minimum .010 jacket) ground rods minimum 5/8 inches diameter by 8'-0" long.
- G. Plate Electrodes: Copper plates minimum 0.06 inches thick by 2'-0" square feet of surface area.

- H. Grounding Electrode Conductors and Bonding Conductors: Copper conductors, bare or insulated with THW, THW-2, XHHW, XHHW-2, THWN, THWN-2 or THHN insulation.
- I. Hardware: Silicon-bronze bolts, nuts, flat and lock washers etc. as manufactured by Dossert Corp., Framatome Connectors/Burndy Corp., or OZ/Gedney Co.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Connections:
 - 1. Make grounding and bonding connections, except buried connections, with silicon-bronze hardware and ground clamps, ground lugs or compression connectors, to suit job conditions.
 - 2. For buried connections use exothermic type weld or compression connectors.

END OF SECTION

SECTION XII

Measurement for Payment

ALTECH SPECIALTY STEEL SITE
Site No. 907022
RECYCLE WATER POND CLOSURE IRM
APRIL 2013

SECTION XII
MEASUREMENT FOR PAYMENT

SECTION XII MEASUREMENT FOR PAYMENT

PART 1 – GENERAL

1.01 Description

- A. This section covers the methods and procedures that the **DEPARTMENT** will use to measure the **CONTRACTOR'S** work and to provide payment. This general outline of the measurement and payment features will not in any way limit the responsibility of the **CONTRACTOR** for making a thorough investigation of the Contract Documents to determine the scope of the work included in each bid task.
1. Payment will be made to the **CONTRACTOR** in accordance with the specified methods of measurement and the unit or lump sum prices stipulated in the accepted bid. Payment will constitute complete compensation for all work required by the Contract Documents including all costs of accepting the general risks, liabilities and obligations, expressed or implied. Payment under all tasks will include, but not necessarily limited to compensation for furnishing all supervision, labor, equipment, overhead, profit, material, services, applicable taxes, and for performing all other related work required. No other payment will be made.
 2. No payment shall be made for work performed by the **CONTRACTOR** to replace defective work, work which is not required by the Contract Documents, work outside the limits of the contract and additional work necessary due to actions of the **CONTRACTOR**, unless ordered by the **ENGINEER** in writing.
 3. For unit price items, the **CONTRACTOR** shall be paid for the actual amount of work accepted and for the actual amount of materials in place during the period of construction. After the work is completed and before final payment is made, the **DEPARTMENT** or **CONTRACTOR** as specified in the pay items will make final measurements to determine the quantities of the various items of work accepted as the basis for final payment. The **CONTRACTOR** shall accept compensation, as herein provided, in full payment for furnishing all materials, labor, tools, equipment, and incidentals necessary to the completed work and for performing all work contemplated and embraced by the contract.
 4. For lump sum items, the **CONTRACTOR** will be paid on the basis of actual work accepted until the work item is completed. Upon completion of the item, 100 percent of the lump sum price may be paid, subject to the terms of the Agreement. The pay items listed below describe the measurement of and payment for the Work to be done under the respective items listed in the Bid as outlined in the approved schedule of values.
 5. All units of measurement shall be standard United States convention, as applied to the specific items of work by tradition and as interpreted by the **DEPARTMENT**. Each unit or lump sum price stated in the Bid shall constitute full compensation, as herein specified, for each item of the Work completed.

1.02 Engineer's Estimate of Quantities

- A. The estimated quantities for unit price items, as listed in the Bid Schedule, are only approximate and are included solely for the purpose of comparison of Bids. The **ENGINEER** does not expressly, or by implication, agree that the nature of the materials encountered or required shall

correspond therewith and reserves the right to increase or decrease any such quantity or to eliminate any quantity as the **ENGINEER** may deem necessary.

1.03 Incidental Items

- A. Except for the items designated hereunder for measurement and payment, the costs of items necessary to complete the work as specified are considered incidental to the items specified for measurement and payment. The costs of incidental items shall be included in the prices of items specified for measurement and payment.

1.04 Quantities

- A. The estimated quantities indicated in the Bid Schedule are the quantities estimated for the evaluation of bids. The actual quantities of items to be paid for on a unit price basis may vary significantly from the quantities indicated in the Bid Schedule.

1.05 SUBMITTALS

- A. Bid Breakdowns/Schedule of Values

1.06 Related Provisions Specified Elsewhere

- A. Payment to Contractor: Refer to General Conditions and Contract Agreement.
- B. Changes in Contract Price: Refer to General Conditions and Contract Agreement.

PART 2 – MEASUREMENT

- 2.01** Under this Contract, the **CONTRACTOR** shall provide all labor, equipment, and materials and shall complete all work as shown and described in the Contract Documents and as directed by the **DEPARTMENT**, in accordance with the expressed intent of the contract to secure a complete construction of a functionally complete project. The bid items described in Part 3 BID ITEMS shall together include all work set forth in the Contract Documents or required to properly complete the work. Any necessary work that is not described shall be considered included in the item to which it properly belongs. Where used in the Contract Documents, the word “including” (“includes”, “include”) shall mean “including (includes, include) but not restricted to”. Each item includes:

- A. All labor, material, equipment, plant services, bonds and insurance, tests, adjustments, warranties, overhead, and other expenses required to perform the work.
- B. All accessories, manuals, and services pertinent to the proper installation of materials and equipment.
- C. All accessories, manuals, and services pertinent to the proper start-up, operation, and maintenance of materials and equipment.

- 2.02** Lump Sum Items: Measurement of all Lump Sum Items will be on a total job basis.

- A. The quantities of work performed under lump sum items will not be measured except for the purpose of determining reasonable interim payments. Interim payments will be made in

accordance with the estimated value of work performed and found acceptable as determined by the **DEPARTMENT**, or as specified in this section.

- B. Where indicated for a lump sum item, the **CONTRACTOR** shall provide a schedule of values. The schedule of values shall include a breakdown of major cost items included within the lump sum in sufficient detail to document specific costs of all items included in the lump sum item. The schedule of values shall be provided to the **DEPARTMENT** prior to initiation of work.
 - C. Measurement for Progress Payments of all lump sum items will be on a percent complete basis until work is complete.
- 2.03** Unit Price Items: Where items are specified to be measured on a unit basis, measurement will be of each particular unit as specified.
- A. **Volume Basis** - Where items are specified to be measured on a volume basis, the volume will be determined on an in-place basis (prior to excavation for excavation or after placement and compaction for imported fill) between the existing and final ground surfaces or grade lines shown on the drawings. If no tolerance is specified, the tolerance shall be interpreted to be 0.00 foot.
 - B. **Area Basis** - Where items are specified to be measured on an area basis, the area will be measured as the actual surface area within the specified limits based on a plan view. If a specified width of an item is indicated, the area will be determined by the actual length along the centerline multiplied by the specified width. No adjustments will be made for the required overlap of materials.
 - C. **Length Basis** - Where items are specified to be measured on a length basis, the length will be measured as the actual length along the centerline within specified limits based on a plan view. No adjustments will be made for the required overlap of materials.
 - D. **Weight Basis** - Where items are specified to be measured on a weight basis, the weight will be measured based on certified weigh scale tickets obtained from a weigh scale certified by the County Office of Weights and Measures and approved by the **DEPARTMENT**. The weights shall be taken in the presence of a **DEPARTMENT** representative. When the weight is per ton, trucks shall be weighed entering the site and exiting the site, using either an on-site or off-site scale. The measured tonnage will be difference between to entering and exiting measured truck weight.
- 2.04** Measurement and payment will be made only for work that has been acceptably performed within the limits shown on the Construction Drawings and in conformance with the Contract Specifications, as specified, or ordered by the **DEPARTMENT**.

PART 3 – BID ITEMS

A. BID ITEM LS-1: MOBILIZATION/DEMOBILIZATION (Limited to 5% of Total Bid)

1.1 General

- A. Bid Item LS-1 shall be bid lump sum price for mobilization and demobilization as specified and directed herein. The **CONTRACTOR** shall submit a separate bid breakdown (see Section III, Article 12) for this Bid Item that shows the individual cost of providing items in the scope of work for this Bid Item as described below plus

miscellaneous items not specified elsewhere:

1. Transporting equipment and materials to Site prior to beginning remedial activities and from the Site upon completion of remedial activities,
2. Permits,
3. Preparation of required Health and Safety (HASP) documents,
4. Schedules, Shop Drawings, and Record Drawings,
5. Preparation of Community Air Monitoring Program (CAMP),
6. Preparation of Stormwater Pollution Prevention Plan (SWPPP),
7. Project Plans.

1.2 Measurement and Payment

- A. The **CONTRACTOR** shall submit a bid breakdown and a schedule of values for this Bid Item that shows the individual cost of individual items listed above, and miscellaneous items not elsewhere specified but necessary for a complete and proper remediation (provide detail).
- B. Measurement for payment of Bid Item LS-1 shall be paid the bid lump sum price for MOBILIZATION/DEMobilIZATION successfully completed, installed, and properly functioning as documented and approved by the **DEPARTMENT**. The **CONTRACTOR** may invoice for up to 70% of this item upon successful installation of the work and the remaining 30% at substantial completion. Payment shall be lump sum bid for each individual item described above, including mobilization, demobilization, and miscellaneous as submitted in the **CONTRACTOR's** bid breakdown.

B. BID ITEM LS-2: SITE PREPARATION

1.1 General

- A. Bid Item LS-2 shall be bid lump sum price for site preparation as specified and directed herein. The **CONTRACTOR** shall submit a separate bid breakdown (see Section III, Article 12) for this Bid Item that shows the individual cost of providing items in the scope of work for this Bid Item as described below plus miscellaneous items not specified elsewhere:
 1. Clearing and Grubbing, remove and dispose of offsite trees, brush, shrubs, and other plants within the project area as depicted on the contract drawings.
 2. Decontamination Station and the collection of pre-Mobilization and post-demobilization soil samples below the pad,

3. Staging areas,
4. Access roads,
5. Temporary utilities,
6. Control, Layout and As-Built Surveys,
7. Utility location.

1.2 Measurement and Payment

- A. The **CONTRACTOR** shall submit a bid breakdown and a schedule of values for this Bid Item that shows the individual cost of individual items listed above, and miscellaneous items not elsewhere specified but necessary for a complete and proper remediation (provide detail).
- B. Measurement for payment of Bid Item LS-2 shall be paid the bid lump sum price for SITE PREPARATION successfully completed and approved by the **DEPARTMENT**. Payment shall be lump sum bid for each individual item described above including miscellaneous as submitted in the **CONTRACTOR'S** bid breakdown.

C. BID ITEM LS-3: EROSION AND SEDIMENT CONTROL

1.1 General

- A. Bid Item LS-3 shall be bid lump sum price for purchase, staging, installation, and maintaining erosion and sediment control devices and structures as specified and directed herein. The **CONTRACTOR** shall submit a separate bid breakdown (see Section III, Article 12) for this Bid Item that shows the individual cost of providing items in the scope of work for this Bid Item as described below plus miscellaneous items not specified elsewhere:
 1. Purchase, staging, installation, and maintaining of erosion and surface water controls.

1.2 Measurement and Payment

- A. The **CONTRACTOR** shall submit a bid breakdown and a schedule of values for this Bid Item that shows the individual cost of miscellaneous items not elsewhere specified but necessary for a complete and proper remediation (provide detail).
- B. Measurement for payment of Bid Item LS-3 shall be paid the bid lump sum price for EROSION AND SEDIMENT CONTROL successfully completed and approved by the **DEPARTMENT**. Payment shall be lump sum bid for each individual item described above including miscellaneous as submitted in the **CONTRACTOR'S** bid breakdown.

D. BID ITEM LS-4: PIER AND METERING SHED DEMOLITION/DISPOSAL

1.1 General

A. Bid Item LS-4 shall be bid lump sum price for demolition and removal of the pier located on the north side Willowbrook Pond located on Site and the wood frame metering shed located at the southwest corner of the Site as specified and directed herein. The **CONTRACTOR** shall submit a separate bid breakdown (see Section III, Article 12) for this Bid Item that shows the individual cost of providing items in the scope of work for this Bid Item as described below plus miscellaneous items not specified elsewhere:

1. Demolition, disposal, and capping of piping affixed to the pier,
2. Demolition and disposal of steel structure,
3. Demolition and disposal of concrete pier supports,
4. Demolition and disposal of other concrete structures associated with the pier.
5. Demolition and disposal of flow metering shed and adjacent structure.
6. Disposal characterization sampling of steel, concrete and other materials associated with pier demolition and disposal.
7. Removal and disposal of Asbestos Containing Material (roof material) in the flow metering shed.

1.2 Measurement for Payment

- A. The **CONTRACTOR** shall submit a bid breakdown and a schedule of values for this Bid Item that shows the individual cost of miscellaneous items not elsewhere specified but necessary for a complete and proper remediation (provide detail).
- B. Measurement for payment for Bid Item LS-4 shall be paid the bid lump sum price for PIER AND METERING SHED DEMOLITION/DISPOSAL successfully completed and approved by the **DEPARTMENT**. Payment shall be lump sum bid for each individual item described above including miscellaneous as submitted in the **CONTRACTOR'S** bid breakdown.

E. BID ITEM LS-5: CAPPING AND PLUGGING OF INLET/OUTLET PIPING

1.1 General

- A. Bid Item LS-5 shall be bid lump sum price for capping and plugging seven (7) inlet/outlet pipes located around the perimeter of Willowbrook Pond located on Site as identified on the contract drawings and specified and directed herein. The **CONTRACTOR** shall submit a separate bid breakdown (see Section III, Article 12)

for this Bid Item that shows the individual cost of providing items in the scope of work for this Bid Item as described below plus miscellaneous items not specified elsewhere:

1. Cut piping to excavation limits of soil removal and dispose of offsite,
2. Cap and plug pipes.
3. Demolish and dispose offsite concrete headwalls or other structures associated with the piping

1.2 Measurement for Payment

- A. The **CONTRACTOR** shall submit a bid breakdown and a schedule of values for this Bid Item that shows the individual cost of miscellaneous items not elsewhere specified but necessary for a complete and proper remediation (provide detail).
- B. Measurement for payment Bid Item LS-5 shall be paid the bid lump sum price for CAPPING AND PLUGGING OF INLET/OUTLET PIPING successfully completed and approved by the **DEPARTMENT**. Payment shall be lump sum bid for each individual item described above including miscellaneous as submitted in the **CONTRACTOR'S** bid breakdown.

F. BID ITEMS LS-6: DEWATERING

1.1 General

- A. Bid Item LS-6 shall be bid lump sum price for water discharged to the POTW as specified and directed herein. The **CONTRACTOR** shall submit a separate bid breakdown (see Section III, Article 12) for this Bid Item that shows the individual cost of providing items in the scope of work for this Bid Item as described below and miscellaneous items not specified elsewhere:
 1. Temporary Water Treatment System,
 2. Water Treatment System Media,
 3. Disposal Water Treatment System Media,
 4. Characterization sampling of system media for disposal,
 5. Decontamination of Water Treatment System,
 6. Pumps,
 7. Frac tanks,
 8. POTW fees,

9. Oil/Water Separator,

10. Effluent sampling.

1.2 Measurement for Payment

- A. The **CONTRACTOR** shall submit a bid breakdown and a schedule of values for this Bid Item that shows the individual cost of miscellaneous items not elsewhere specified but necessary for a complete and proper remediation (provide detail).
- B. Measurement for payment of Bid Item LS-6 shall be paid the bid lump sum price for DEWATERING successfully completed and approved by the **DEPARTMENT**. Payment shall be lump sum bid for each individual item described above including miscellaneous as submitted in the **CONTRACTOR'S** bid breakdown.

G. BID ITEMS LS-7: ALTA/ACSM BOUNDARY SURVEY

1.1 General

- A. Bid Item LS-7 shall be bid lump sum price for performing an ALTA/ACSM Boundary Survey upon completion of the project as specified and directed herein. The **CONTRACTOR** shall submit a separate bid breakdown (see Section III, Article 12) for this Bid Item that shows the individual cost of providing items in the scope of work for this Bid Item as described below and miscellaneous items not specified elsewhere:

- 1. Provide ALTA/ACSM Boundary Survey

1.2 Measurement for Payment

- A. The **CONTRACTOR** shall submit a bid breakdown and a schedule of values for this Bid Item that shows the individual cost of miscellaneous items not elsewhere specified but necessary for a complete and proper remediation (provide detail).
- B. Measurement for payment of Bid Item LS-7 shall be paid the bid lump sum price for ALTA/ACSM BOUNDARY SURVEY successfully completed and approved by the **DEPARTMENT**. Payment shall be lump sum bid for each individual item described above including miscellaneous as submitted in the **CONTRACTOR'S** bid breakdown.

H. BID ITEM UC-1: SITE SERVICES

1.1 General

- A. Bid Item UC-1 shall be bid unit price per calendar day for site services as specified and directed herein.

- 1. Site Security,
- 2. Access Roads Maintenance,

3. Maintain/repair roads on access/haul route,
4. Field Offices,
5. Temporary Utilities,
6. Storage Facilities,
7. Disposal of Contractor-Generated Solid Waste,
8. Treatment and sampling of water generated during excavation and decontamination,
9. Meteorological Station,
10. Toilet Facilities,
11. Drinking Water,
12. Handwash Facilities,
13. Decontamination Pad,
14. Soil Staging Area,
15. Support Area,
16. On Site Water Treatment Facility Area,
17. On-Site Truck Scale Calibration, Operation, and Maintenance (if on-site scale is used).

1.2 Measurement for Payment

- A. The **CONTRACTOR** shall submit a separate bid breakdown for this item showing the individual cost per day for providing items in the scope of work for this Bid Item.
- B. Measurement for payment of Bid Item UC-1 shall be paid the bid unit price for EACH calendar day beginning after satisfactory installation of site facilities and ending at substantial completion of the work. Payment shall be unit price bid for each individual item described above as submitted in the **CONTRACTOR's** bid breakdown. A fifty percent reduction in payment would occur for each calendar day that operation and/or maintenance of any item included in this Bid Item was unsatisfactory or unused as determined by the **DEPARTMENT**.

I. BID ITEM UC-2: HEALTH AND SAFETY

1.1 General

- A. Bid Item UC-2 shall be bid unit price per calendar day for health and safety as directed below and specified in Section X – Spec 0003.
 - 1. Health and Safety Officer.
 - 2. Decontamination Station.
 - 3. Health and Safety Equipment.
 - 4. Decontamination Trailer and Personal Hygiene Facility.
 - 5. Air Monitoring.
 - 6. Dust Control.
 - 7. Sampling, Analyses, Handling and Disposal of Personal Protective Equipment (PPE) and Decontamination Wastes not specifically included in other bid items.

1.2 Measurement for Payment

- A. The **CONTRACTOR** shall submit a bid breakdown showing the capital and daily O&M costs for items included in this Bid Item (Items not included in Bid Item UC-1, Site Services).
- B. Measurement for payment of Bid Item UC-2 shall be paid the bid unit price for EACH Calendar day the HASP has been adhered to in the opinion of the **DEPARTMENT**. Work included in this item shall be by calendar day beginning after the satisfactory establishment of an exclusion zone and shall be considered completed when there is no longer an exclusion zone in the project area and/or at substantial completion. All daily maintenance costs for health and safety are part of this Bid Item including everything required in the HASP. A reduction in the payment for this item will occur for each day the **CONTRACTOR** fails to adhere (in the opinion of the **DEPARTMENT**) to the HASP. There will be one hundred (100) percent reduction in this Bid Item for days where no remediation work occurs in the exclusion zone. No payment will be made for Saturdays, Sundays and holidays.

J. BID ITEMS UC-3 AND UC-4: WELL POINT INSTALLATION AND DECOMMISSIONING

1.1 General

- A. Bid Item UC-3 shall provide a unit price per linear foot of well point properly installed.
- B. Bid Item UC-4 shall provide a unit price per linear foot of well point properly

decommissioned.

1.2 Measurement for Payment

- A. Measurement for payment of Bid Items UC-3 and UC-4 shall be for the actual footage of well points which have been installed and decommissioned as indicated by the **ENGINEER's** records. Payment of Bid Items UC-3 and UC-4 shall be paid by the bid unit price beginning after satisfactory installation/decommissioning of the wells and ending at substantial completion of the work.

K. BID ITEMS UC-5: MONITORING WELL DECOMMISSIONING

1.1 General

- A. Bid Item UC-5 shall provide a unit price per linear foot of monitoring well properly decommissioned.

1.2 Measurement for Payment

- A. Measurement for payment of Bid Items UC-5 shall be for the actual footage of monitoring well which have been decommissioned as indicated by the **ENGINEER's** records. Payment of Bid Item UC-5 shall be paid by the bid unit price beginning after satisfactory installation/decommissioning of the wells and ending at substantial completion of the work.

L. BID ITEMS UC-6: NON-HAZARDOUS SOIL EXCAVATION

1.1 General

- A. Bid Item UC-6 shall be bid per unit price per cubic yard for excavation of non-hazardous soil as specified and directed herein. The **CONTRACTOR** shall submit a separate bid breakdown (see Section III, Article 12) for this Bid Item that shows the individual cost of providing items in the scope of work for this Bid Item as described below and miscellaneous items not specified elsewhere:
1. Bid Item shall provide a unit price bid for each cubic yard of material (i.e., fill/waste and soil) excavated.
 2. Characterization sampling of soil for disposal.

1.2 Measurement for Payment

- A. Measurement for payment of UC-6 shall be for the actual quantity of material which is properly excavated as indicated by the **ENGINEERS's** records. Payment shall be made as measured by the calculated volume of the pre- and post-excavation survey data. Payment of Bid Item UC-6 shall be paid by the bid unit price beginning after excavation activities have been initiated and ending at substantial completion of the work.

M. BID ITEMS UC-7: HAZARDOUS SOIL EXCAVATION

1.1 General

- A. Bid Item UC-7 shall be bid per unit price per cubic yard for excavation of hazardous soil as specified and directed herein. The **CONTRACTOR** shall submit a separate bid breakdown (see Section III, Article 12) for this Bid Item that shows the individual cost of providing items in the scope of work for this Bid Item as described below and miscellaneous items not specified elsewhere:
 - 1. Bid Item shall provide a unit price bid for each cubic yard of material (i.e., fill/waste and soil) excavated.
 - 2. Characterization sampling of soil for disposal.

1.2 Measurement for Payment

- A. A. Measurement for payment of UC-7 shall be for the actual quantity of material which is properly excavated as indicated by the **ENGINEERS's** records. Payment shall be made as measured by the calculated volume of the pre- and post-excavation survey data. Payment of Bid Item UC-7 shall be paid by the bid unit price beginning after hazardous excavation activities have been initiated and ending at substantial completion of the work.

N. BID ITEMS UC-8: NON-HAZARDOUS SEDIMENT EXCAVATION

1.1 General

- A. Bid Item UC-8 shall be bid per unit price per cubic yard for the excavation of non-hazardous sediment as specified and directed herein. The **CONTRACTOR** shall submit a separate bid breakdown (see Section III, Article 12) for this Bid Item that shows the individual cost of providing items in the scope of work for this Bid Item as described below and miscellaneous items not specified elsewhere:
 - 1. Bid Item shall provide a unit price bid for each cubic yard of material (i.e., fill/waste and sediment) excavated.
 - 2. Characterization sampling for non-hazardous sediment disposal.

1.2 Measurement for Payment

- A. Measurement for payment of UC-8 shall be for the actual quantity of material which is properly excavated as indicated by the **ENGINEERS's** records. Payment shall be made as measured by the calculated volume of the pre- and post-excavation survey data. Payment of Bid Item UC-8 shall be paid by the bid unit price beginning after excavation activities have been initiated and ending at substantial completion of the work.

O. BID ITEMS UC-9: HAZARDOUS SEDIMENT EXCAVATION

1.1 General

- A. Bid Item UC-9 shall be bid per unit price per cubic yard for the excavation of hazardous sediment as specified and directed herein. The **CONTRACTOR** shall submit a separate bid breakdown (see Section III, Article 12) for this Bid Item that shows the individual cost of providing items in the scope of work for this Bid Item as described below and miscellaneous items not specified elsewhere:
 - 1. Bid Item shall provide a unit price bid for each cubic yard of material (i.e., fill/waste and sediment) excavated.
 - 2. Characterization sampling for non-hazardous sediment disposal.

1.2 Measurement for Payment

- A. A. Measurement for payment of UC-9 shall be for the actual quantity of material which is properly excavated as indicated by the **ENGINEERS's** records. Payment shall be made as measured by the calculated volume of the pre- and post-excavation survey data. Payment of Bid Item UC-9 shall be paid by the bid unit price beginning after excavation activities have been initiated and ending at substantial completion of the work.

P. BID ITEMS UC-10: NON-HAZARDOUS SOIL/SEDIMENT TRANSPORTATION AND DISPOSAL

1.1 General

- A. Bid Item UC-10 shall be bid per unit price per ton for soil transported and properly disposed of offsite as specified and directed herein. The **CONTRACTOR** shall submit a separate bid breakdown (see Section III, Article 12) for this Bid Item that shows the individual cost of providing items in the scope of work for this Bid Item as described below and miscellaneous items not specified elsewhere:
 - 1. Bid Item shall provide a unit price bid for each ton of material (i.e., fill/waste and soil) transported and properly disposed of off-site as non-hazardous waste.

1.2 Measurement for Payment

- A. Measurement for payment of shall be for the actual quantity of material which is properly transported and disposed as indicated by the **ENGINEERS's** records. Payment shall be made as measured by certified weigh tickets. Payment of Bid Item UC-10 shall be paid by the bid unit price beginning after transportation and disposal activities have been initiated and ending at substantial completion of the work.

Q. BID ITEMS UC-11: HAZARDOUS SOIL/SEDIMENT TRANSPORTATION AND DISPOSAL

1.1 General

- A. Bid Item UC-11 shall be bid per unit price per ton for soil transported and properly

disposed of offsite as specified and directed herein. The **CONTRACTOR** shall submit a separate bid breakdown (see Section III, Article 12) for this Bid Item that shows the individual cost of providing items in the scope of work for this Bid Item as described below and miscellaneous items not specified elsewhere:

1. Bid Item shall provide a unit price bid for each ton of material (i.e., fill/waste and soil) transported and properly disposed of off-site as hazardous waste.

1.2 Measurement for Payment

- A. Measurement for payment of shall be for the actual quantity of material which is properly transported and disposed as indicated by the **ENGINEERS's** records. Payment shall be made as measured by certified weigh tickets. Payment of Bid Item UC-11 shall be paid by the bid unit price beginning after transportation and disposal activities have been initiated and ending at substantial completion of the work.

R. BID ITEM UC-12: BACKFILL WITH APPROVED OFF-SITE BACKFILL MATERIAL: GRAVEL FILL

1.1 General

- A. Bid Item UC-12 shall provide a unit price bid for each cubic yard of clean off-site clean fill that has been properly placed and compacted into excavations.
- B. Collection of and analytical sampling of proposed backfill sources shall be paid under this bid form.

1.2 Measurement for Payment

- A. Payment for Bid Item UC-12 Backfill with Approved Off-site Backfill Material: Gravel Fill shall be made at the unit price bid for Bid Item UC-12 and will constitute full compensation for furnishing all labor, tools, and equipment required to complete the Work as shown on the Drawings and specified in the Contract Documents. The work shall include providing clean fill for use as backfill. Soil must meet 6 NYCRR Part 375-6.7(d) standards, specifically 6 NYCRR Part 375-6.7(d)(1)(ii)(c). Such work shall include, but not limited to, procuring, transporting, backfilling and compacting the clean fill in accordance with the contract documents. All applicable QA/QC testing shall be included in this unit cost item. The Contractor shall be paid based on the in-place volume of soil prior to excavation, based on a comparison of topographic surveys conducted before and after excavation. Payment of Bid Item UC-12 shall be paid by the bid unit price beginning after backfill activities have been initiated and ending at substantial completion of the work.

S. BID ITEM UC-13: FINAL GRADING, TOPSOIL AND SEEDING

1.1 General

- A. Bid Item UC-13 shall provide a unit price bid for each cubic yard of clean fill (backfill) graded, and properly vegetated in the removal areas.

1.2 Measurement for Payment

- A. The **CONTRACTOR** shall submit a bid breakdown for these items that shows the individual cost of the above items and other miscellaneous items not elsewhere specified but necessary for a complete and proper restoration.
- B. Payment for Bid Item UC-13 Final Grading, Topsoil and Seeding shall be made at the unit price bid for Bid Item UC-13 and will constitute full compensation for furnishing all labor, tools, and equipment required to complete the Work as shown on the Drawings and specified in the Contract Documents. The work shall include providing and placement of topsoil, seed, fertilizer, mulch, erosion control materials, and related survey work as shown on the Drawings and specified in the Contract Documents. All applicable QA/QC testing shall be included in this unit cost item. The Contractor shall be paid based on the number of square yards of finish grading, topsoil and seeding completed, based on land survey information collected and after finish grading, topsoil and seeding. Payment of Bid Item UC-13 shall be paid by the bid unit price beginning after final grading, topsoil and seeding activities have been initiated and ending at substantial completion of the work.

T. BID ITEM UC-14: BACKFILL SOIL SAMPLING/ANALYSIS (PCBs)

1.1 General

- A. Bid Item UC-14 shall provide a unit price bid for each sample collected from fill being imported to the Site and analyzed for PCBs using EPA Method 8082 with a one day turn-around time. The sample will be collected and analyzed in accordance with Chapter 5 and Table 5.4(e)10 of DER-10/Technical Guidance for Site Investigation and Remediation.

1.2 Measurement for Payment

- A. The **CONTRACTOR** shall submit a bid breakdown for these items that shows the individual cost of the above items and other miscellaneous items not elsewhere specified but necessary for a complete and proper restoration.
- B. Payment for Bid Item UC-14 Backfill Soil Sampling/Analysis (PCBs) shall be made at the unit price bid for Bid Item UC-14 and will constitute full compensation for furnishing all labor, tools, and equipment required to complete the Work as shown on the Drawings and specified in the Contract Documents. The work shall include collecting and analyzing the samples as shown on the Drawings and specified in the Contract Documents. All applicable QA/QC testing shall be included in this unit cost item. The Contractor shall be paid based on the number of samples collected and analyzed. Payment of Bid Item UC-14 shall be paid by the bid unit price beginning after sample collection activities have been initiated and ending at substantial completion of the work.

U. BID ITEM UC-15: BACKFILL SOIL SAMPLING/ANALYSIS (SVOCs)

1.1 General

- A. Bid Item UC-15 shall provide a unit price bid for each sample collected from fill being imported to the Site and analyzed for SVOCs using EPA Method 8270 with a three day turn-around time. The sample will be collected and analyzed in accordance with Chapter 5 and Table 5.4(e)10 of DER-10/Technical Guidance for Site Investigation and Remediation.

1.2 Measurement for Payment

- A. The **CONTRACTOR** shall submit a bid breakdown for these items that shows the individual cost of the above items and other miscellaneous items not elsewhere specified but necessary for a complete and proper restoration.
- B. Payment for Bid Item UC-15 Backfill Soil Sampling/Analysis (SVOCs) shall be made at the unit price bid for Bid Item UC-155 and will constitute full compensation for furnishing all labor, tools, and equipment required to complete the Work as shown on the Drawings and specified in the Contract Documents. The work shall include collecting and analyzing the samples as shown on the Drawings and specified in the Contract Documents. All applicable QA/QC testing shall be included in this unit cost item. The Contractor shall be paid based on the number of samples collected and analyzed. Payment of Bid Item UC-15 shall be paid by the bid unit price beginning after sample collection activities have been initiated and ending at substantial completion of the work.

V. BID ITEM UC-16: SEDIMENT/SOIL SAMPLING/TCLP ANALYSIS (SVOCs)

1.1 General

- A. Bid Item UC-16 shall provide a unit price bid for each sample collected from material being exported from the Site and analyzed for TCLP SVOCs using EPA Method 8270 with a five day turn-around time. The sample will be collected and analyzed in accordance with Chapter 5 and Table 5.4(e)10 of DER-10/Technical Guidance for Site Investigation and Remediation.

1.2 Measurement for Payment

- A. The **CONTRACTOR** shall submit a bid breakdown for these items that shows the individual cost of the above items and other miscellaneous items not elsewhere specified but necessary for a complete and proper restoration.
- B. Payment for Bid Item UC-16 Sediment /Soil Sampling/TCLP Analysis (SVOCs) shall be made at the unit price bid for Bid Item UC-16 and will constitute full compensation for furnishing all labor, tools, and equipment required to complete the Work as shown on the Drawings and specified in the Contract Documents. The work shall include collecting and analyzing the samples as shown on the Drawings and specified in the Contract Documents. All applicable QA/QC testing shall be included in this unit cost item. The Contractor shall be paid based on the number of samples collected and analyzed. Payment of Bid Item UC-16 shall be paid by the bid unit price beginning after sample collection activities have been initiated and ending at substantial completion of the work.

W. BID ITEM UC-17: BACKFILL SOIL SAMPLING/ANALYSIS (VOCs)

1.1 General

- A. Bid Item UC-17 shall provide a unit price bid for each sample collected from fill being imported to the Site and analyzed for VOCs using EPA Method 8260 with a three day turn-around time. The sample will be collected and analyzed in accordance with Chapter 5 and Table 5.4(e)10 of DER-10/Technical Guidance for Site Investigation and Remediation.

1.2 Measurement for Payment

- A. The **CONTRACTOR** shall submit a bid breakdown for these items that shows the individual cost of the above items and other miscellaneous items not elsewhere specified but necessary for a complete and proper restoration.
- B. Payment for Bid Item UC-17 Backfill Soil Sampling/Analysis (VOCs) shall be made at the unit price bid for Bid Item UC-17 and will constitute full compensation for furnishing all labor, tools, and equipment required to complete the Work as shown on the Drawings and specified in the Contract Documents. The work shall include collecting and analyzing the samples as shown on the Drawings and specified in the Contract Documents. All applicable QA/QC testing shall be included in this unit cost item. The Contractor shall be paid based on the number of samples collected and analyzed. Payment of Bid Item UC-17 shall be paid by the bid unit price beginning after sample collection activities have been initiated and ending at substantial completion of the work.

X. BID ITEM UC-18: SEDIMENT/SOIL SAMPLING/TCLP ANALYSIS (VOCs)

1.1 General

- A. Bid Item UC-18 shall provide a unit price bid for each sample collected from material being exported from the Site and analyzed for TCLP VOCs using EPA Method 8260 with a five day turn-around time. The sample will be collected and analyzed in accordance with Chapter 5 and Table 5.4(e)10 of DER-10/Technical Guidance for Site Investigation and Remediation.

1.2 Measurement for Payment

- A. The **CONTRACTOR** shall submit a bid breakdown for these items that shows the individual cost of the above items and other miscellaneous items not elsewhere specified but necessary for a complete and proper restoration.
- B. Payment for Bid Item UC-18 Sediment /Soil Sampling/TCLP Analysis (VOCs) shall be made at the unit price bid for Bid Item UC-18 and will constitute full compensation for furnishing all labor, tools, and equipment required to complete the Work as shown on the Drawings and specified in the Contract Documents. The work shall include collecting and analyzing the samples as shown on the Drawings and specified in the Contract Documents. All applicable QA/QC testing shall be included in this unit cost item. The Contractor shall be paid based on the number of samples

collected and analyzed. Payment of Bid Item UC-18 shall be paid by the bid unit price beginning after sample collection activities have been initiated and ending at substantial completion of the work.

Y. BID ITEM UC-19: BACKFILL SOIL SAMPLING/ANALYSIS (METALS)

1.1 General

- A. Bid Item UC-19 shall provide a unit price bid for each sample collected from fill being imported to the Site and analyzed for metals using EPA Methods 6010 and 7471 with a three day turn-around time. The sample will be collected and analyzed in accordance with Chapter 5 and Table 5.4(e)10 of DER-10/Technical Guidance for Site Investigation and Remediation.

1.2 Measurement for Payment

- A. The **CONTRACTOR** shall submit a bid breakdown for these items that shows the individual cost of the above items and other miscellaneous items not elsewhere specified but necessary for a complete and proper restoration.
- B. Payment for Bid Item UC-19 Backfill Soil Sampling/Analysis (Metals) shall be made at the unit price bid for Bid Item UC-19 and will constitute full compensation for furnishing all labor, tools, and equipment required to complete the Work as shown on the Drawings and specified in the Contract Documents. The work shall include collecting and analyzing the samples as shown on the Drawings and specified in the Contract Documents. All applicable QA/QC testing shall be included in this unit cost item. The Contractor shall be paid based on the number of samples collected and analyzed. Payment of Bid Item UC-18 shall be paid by the bid unit price beginning after sample collection activities have been initiated and ending at substantial completion of the work.

Z. BID ITEM UC-20: SEDIMENT/SOIL SAMPLING/TCLP ANALYSIS (METALS)

1.1 General

- A. Bid Item UC-20 shall provide a unit price bid for each sample collected from material being exported from the Site and analyzed for TCLP metals using EPA Methods 6010 and 7471 with a five day turn-around time. The sample will be collected and analyzed in accordance with Chapter 5 and Table 5.4(e)10 of DER-10/Technical Guidance for Site Investigation and Remediation.

1.2 Measurement for Payment

- A. The **CONTRACTOR** shall submit a bid breakdown for these items that shows the individual cost of the above items and other miscellaneous items not elsewhere specified but necessary for a complete and proper restoration.
- B. Payment for Bid Item UC-20 Sediment /Soil Sampling/TCLP Analysis (Metals) shall be made at the unit price bid for Bid Item UC-20 and will constitute full compensation for furnishing all labor, tools, and equipment required to complete the

Work as shown on the Drawings and specified in the Contract Documents. The work shall include collecting and analyzing the samples as shown on the Drawings and specified in the Contract Documents. All applicable QA/QC testing shall be included in this unit cost item. The Contractor shall be paid based on the number of samples collected and analyzed. Payment of Bid Item UC-20 shall be paid by the bid unit price beginning after sample collection activities have been initiated and ending at substantial completion of the work.

AA. BID ITEM UC-21: BACKFILL SOIL SAMPLING/ANALYSIS (PESTICIDES)

1.1 General

- A. Bid Item UC-21 shall provide a unit price bid for each sample collected from fill being imported to the Site and analyzed for pesticides using EPA Method 8081 with a three day turn-around time. The sample will be collected and analyzed in accordance with Chapter 5 and Table 5.4(e)10 of DER-10/Technical Guidance for Site Investigation and Remediation.

1.2 Measurement for Payment

- A. The **CONTRACTOR** shall submit a bid breakdown for these items that shows the individual cost of the above items and other miscellaneous items not elsewhere specified but necessary for a complete and proper restoration.
- B. Payment for Bid Item UC-21 Backfill Soil Sampling/Analysis (Pesticides) shall be made at the unit price bid for Bid Item UC-21 and will constitute full compensation for furnishing all labor, tools, and equipment required to complete the Work as shown on the Drawings and specified in the Contract Documents. The work shall include collecting and analyzing the samples as shown on the Drawings and specified in the Contract Documents. All applicable QA/QC testing shall be included in this unit cost item. The Contractor shall be paid based on the number of samples collected and analyzed. Payment of Bid Item UC-21 shall be paid by the bid unit price beginning after sample collection activities have been initiated and ending at substantial completion of the work.

BB. BID ITEM UC-22: SEDIMENT/SOIL SAMPLING/TCLP ANALYSIS (PESTICIDES)

1.1 General

- A. Bid Item UC-22 shall provide a unit price bid for each sample collected from material being exported from the Site and analyzed for TCLP pesticides using EPA Method 8081 with a five day turn-around time. The sample will be collected and analyzed in accordance with Chapter 5 and Table 5.4(e)10 of DER-10/Technical Guidance for Site Investigation and Remediation.

1.2 Measurement for Payment

- A. The **CONTRACTOR** shall submit a bid breakdown for these items that shows the individual cost of the above items and other miscellaneous items not elsewhere specified but necessary for a complete and proper restoration.

- B. Payment for Bid Item UC-22 Sediment /Soil Sampling/TCLP Analysis (Pesticides) shall be made at the unit price bid for Bid Item UC-22 and will constitute full compensation for furnishing all labor, tools, and equipment required to complete the Work as shown on the Drawings and specified in the Contract Documents. The work shall include collecting and analyzing the samples as shown on the Drawings and specified in the Contract Documents. All applicable QA/QC testing shall be included in this unit cost item. The Contractor shall be paid based on the number of samples collected and analyzed. Payment of Bid Item UC-22 shall be paid by the bid unit price beginning after sample collection activities have been initiated and ending at substantial completion of the work.

CC. BID ITEM UC-23: ONSITE WATER TREATMENT FACILITY EFFLUENT SAMPLING ANALYSIS (VOCs, SVOCs, METALS, PCBs)

1.1 General

- A. Bid Item UC-23 shall provide a unit price bid for each sample collected from the effluent of the onsite water treatment facility and analyzed for VOCs, SVOCs, metals, and PCBs using EPA Methods 8260, 8270, 6010/7470, and 8082, respectively, with a three day turn-around time.

1.2 Measurement for Payment

- A. The **CONTRACTOR** shall submit a bid breakdown for these items that shows the individual cost of the above items and other miscellaneous items not elsewhere specified but necessary for a complete and proper restoration.
- B. Payment for Bid Item UC-23 Onsite Water Treatment Facility Effluent Sampling Analysis (VOCs, SVOCs, Metals, PCBs) shall be made at the unit price bid for Bid Item UC-23 and will constitute full compensation for furnishing all labor, tools, and equipment required to complete the Work as shown on the Drawings and specified in the Contract Documents. The work shall include collecting and analyzing the samples as shown on the Drawings and specified in the Contract Documents. All applicable QA/QC testing shall be included in this unit cost item. The Contractor shall be paid based on the number of samples collected and analyzed. Payment of Bid Item UC-23 shall be paid by the bid unit price beginning after sample collection activities have been initiated and ending at substantial completion of the work.

DD. BID ITEM UC-24: SOIL EXCAVATION CONFIRMATORY SAMPLING ANALYSIS (VOCs, SVOCs, METALS, PCBs)

1.1 General

- A. Bid Item UC-24 shall provide a unit price bid for each sample collected from the native material remaining after soil excavation has been performed and analyzed for VOCs, SVOCs, metals, and PCBs using EPA Methods 8260, 8270, 6010/7470, and 8082, respectively, with a three day turn-around time.

1.2 Measurement for Payment

- A. The **CONTRACTOR** shall submit a bid breakdown for these items that shows the individual cost of the above items and other miscellaneous items not elsewhere specified but necessary for a complete and proper restoration.
- B. Payment for Bid Item UC-24 Soil Excavation Confirmatory Sampling Analysis (VOCs, SVOCs, Metals, PCBs) shall be made at the unit price bid for Bid Item UC-24 and will constitute full compensation for furnishing all labor, tools, and equipment required to complete the Work as shown on the Drawings and specified in the Contract Documents. The work shall include collecting and analyzing the samples as shown on the Drawings and specified in the Contract Documents. All applicable QA/QC testing shall be included in this unit cost item. The Contractor shall be paid based on the number of samples collected and analyzed. Payment of Bid Item UC-24 shall be paid by the bid unit price beginning after sample collection activities have been initiated and ending at substantial completion of the work.

*** END OF SECTION ***

SECTION XIII

Wage Rates and Associated Contract Requirements



Andrew M. Cuomo, Governor

Peter M. Rivera, Commissioner

NYSDEC

David Chiusano, Env. Engineer/Project Mgr.
625 Broadway
12th Floor
Albany NY 12233-7017

Schedule Year 2012 through 2013
Date Requested 12/13/2011
PRC# 2011010284

Location Chautauqua
Project ID# D008535
Project Type environmental remediation of recycle water pond.

PREVAILING WAGE SCHEDULE FOR ARTICLE 8 PUBLIC WORK PROJECT

Attached is the current schedule(s) of the prevailing wage rates and prevailing hourly supplements for the project referenced above. A unique Prevailing Wage Case Number (PRC#) has been assigned to the schedule(s) for your project.

The schedule is effective from July 2012 through June 2013. All updates, corrections, posted on the 1st business day of each month, and future copies of the annual determination are available on the Department's website www.labor.state.ny.us. Updated PDF copies of your schedule can be accessed by entering your assigned PRC# at the proper location on the website.

It is the responsibility of the contracting agency or its agent to annex and make part, the attached schedule, to the specifications for this project, when it is advertised for bids and /or to forward said schedules to the successful bidder(s), immediately upon receipt, in order to insure the proper payment of wages.

Please refer to the "General Provisions of Laws Covering Workers on Public Work Contracts" provided with this schedule, for the specific details relating to other responsibilities of the Department of Jurisdiction.

Upon completion or cancellation of this project, enter the required information and mail **OR** fax this form to the office shown at the bottom of this notice, **OR** fill out the electronic version via the NYSDOL website.

NOTICE OF COMPLETION / CANCELLATION OF PROJECT

Date Completed: _____ Date Cancelled: _____

Name & Title of Representative: _____

Phone: (518) 457-5589 Fax: (518) 485-1870
W. Averell Harriman State Office Campus, Bldg. 12, Room 130, Albany, NY 12240

General Provisions of Laws Covering Workers on Article 8 Public Work Contracts

Introduction

The Labor Law requires public work contractors and subcontractors to pay laborers, workers, or mechanics employed in the performance of a public work contract not less than the prevailing rate of wage and supplements (fringe benefits) in the locality where the work is performed.

Responsibilities of the Department of Jurisdiction

A Department of Jurisdiction (Contracting Agency) includes a state department, agency, board or commission; a county, city, town or village; a school district, board of education or board of cooperative educational services; a sewer, water, fire, improvement and other district corporation; a public benefit corporation; and a public authority awarding a public work contract.

The Department of Jurisdiction (Contracting Agency) awarding a public work contract MUST obtain a Prevailing Rate Schedule listing the hourly rates of wages and supplements due the workers to be employed on a public work project. This schedule may be obtained by completing and forwarding a "Request for wage and Supplement Information" form (PW 39) to the Bureau of Public Work. The Prevailing Rate Schedule MUST be included in the specifications for the contract to be awarded and is deemed part of the public work contract.

Upon the awarding of the contract, the law requires that the Department of Jurisdiction (Contracting Agency) furnish the following information to the Bureau: the name and address of the contractor, the date the contract was let and the approximate dollar value of the contract. To facilitate compliance with this provision of the Labor Law, a copy of the Department's "Notice of Contract Award" form (PW 16) is provided with the original Prevailing Rate Schedule.

The Department of Jurisdiction (Contracting Agency) is required to notify the Bureau of the completion or cancellation of any public work project. The Department's PW 200 form is provided for that purpose.

Both the PW 16 and PW 200 forms are available for completion [online](#).

Hours

No laborer, worker, or mechanic in the employ of a contractor or subcontractor engaged in the performance of any public work project shall be permitted to work more than eight hours in any day or more than five days in any week, except in cases of extraordinary emergency. The contractor and the Department of Jurisdiction (Contracting Agency) may apply to the Bureau of Public Work for a dispensation permitting workers to work additional hours or days per week on a particular public work project.

There are very few exceptions to this rule. Complete information regarding these exceptions is available on the "[4 Day / 10 Hour Work Schedule](#)" form (PW 30R).

Wages and Supplements

The wages and supplements to be paid and/or provided to laborers, workers, and mechanics employed on a public work project shall be not less than those listed in the current Prevailing Rate Schedule for the locality where the work is performed. If a prime contractor on a public work project has not been provided with a Prevailing Rate Schedule, the contractor must notify the Department of Jurisdiction (Contracting Agency) who in turn must request an original Prevailing Rate Schedule form the Bureau of Public Work. Requests may be submitted by: mail to NYSDOL, Bureau of Public Work, State Office Bldg. Campus, Bldg. 12, Rm. 130, Albany, NY 12240; Fax to Bureau of Public Work (518) 485-1870; or electronically at the NYSDOL website www.labor.state.ny.us.

Upon receiving the original schedule, the Department of Jurisdiction (Contracting Agency) is REQUIRED to provide complete copies to all prime contractors who in turn MUST, by law, provide copies of all applicable county schedules to each subcontractor and obtain from each subcontractor, an affidavit certifying such schedules were received. If the original schedule expired, the contractor may obtain a copy of the new annual determination from the NYSDOL website www.labor.state.ny.us.

The Commissioner of Labor makes an annual determination of the prevailing rates. This determination is in effect from July 1st through June 30th of the following year. The annual determination is available on the NYSDOL website www.labor.state.ny.us.

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 (3) 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, Address, Last 4 Digits of Social Security Number, Classification(s) in which the worker was employed, Hourly wage rate(s) paid, Supplements paid or provided, and Daily and weekly number of hours worked in each classification.

Every contractor and subcontractor shall submit to the Department of Jurisdiction (Contracting Agency), within thirty (30) days after issuance of its first payroll and every thirty (30) days thereafter, a transcript of the original payrolls, subscribed and affirmed as true under penalty of perjury. The Department of Jurisdiction (Contracting Agency) shall collect, review for facial validity, and maintain such payrolls.

In addition, the Commissioner of Labor may require contractors to furnish, with ten (10) days of a request, payroll records sworn to as their validity and accuracy for public work and private work. Payroll records include, but are not limited to time cards, work description sheets, proof that supplements were provided, cancelled payroll checks and payrolls. Failure to provide the requested information within the allotted ten (10) days will result in the withholding of up to 25% of the contract, not to exceed \$100,000.00. If the contractor or subcontractor does not maintain a place of business in New York State and the amount of the contract exceeds \$25,000.00, payroll records and certifications must be kept on the project worksite.

The prime contractor is responsible for any underpayments of prevailing wages or supplements by any subcontractor.

All contractors or their subcontractors shall provide to their subcontractors a copy of the Prevailing Rate Schedule specified in the public work contract as well as any subsequently issued schedules. A failure to provide these schedules by a contractor or subcontractor is a violation of Article 8, Section 220-a of the Labor Law.

All subcontractors engaged by a public work project contractor or its subcontractor, upon receipt of the original schedule and any subsequently issued schedules, shall provide to such contractor a verified statement attesting that the subcontractor has received the Prevailing Rate Schedule and will pay or provide the applicable rates of wages and supplements specified therein. (See NYS Labor Laws, Article 8 . Section 220-a).

Determination of Prevailing Wage and Supplement Rate Updates Applicable to All Counties

The wages and supplements contained in the annual determination become effective July 1st whether or not the new determination has been received by a given contractor. Care should be taken to review the rates for obvious errors. Any corrections should be brought to the Department's attention immediately. It is the responsibility of the public work contractor to use the proper rates. If there is a question on the proper classification to be used, please call the district office located nearest the project. Any errors in the annual determination will be corrected and posted to the NYSDOL website on the first business day of each month. Contractors are responsible for paying these updated rates as well, retroactive to July 1st.

When you review the schedule for a particular occupation, your attention should be directed to the dates above the column of rates. These are the dates for which a given set of rates is effective. To the extent possible, the Department posts rates in its possession that cover periods of time beyond the July 1st to June 30th time frame covered by a particular annual determination. Rates that extend beyond that instant time period are informational ONLY and may be updated in future annual determinations that actually cover the then appropriate July 1st to June 30th time period.

Withholding of Payments

When a complaint is filed with the Commissioner of Labor alleging the failure of a contractor or subcontractor to pay or provide the prevailing wages or supplements, or when the Commissioner of Labor believes that unpaid wages or supplements may be due, payments on the public work contract shall be withheld from the prime contractor in a sufficient amount to satisfy the alleged unpaid wages and supplements, including interest and civil penalty, pending a final determination.

When the Bureau of Public Work finds that a contractor or subcontractor on a public work project failed to pay or provide the requisite prevailing wages or supplements, the Bureau is authorized by Sections 220-b and 235.2 of the Labor Law to so notify the financial officer of the Department of Jurisdiction (Contracting Agency) that awarded the public work contract. Such officer MUST then withhold or cause to be withheld from any payment due the prime contractor on account of such contract the amount indicated by the Bureau as sufficient to satisfy the unpaid wages and supplements, including interest and any civil penalty that may be assessed by the Commissioner of Labor. The withholding continues until there is a final determination of the underpayment by the Commissioner of Labor or by the court in the event a legal proceeding is instituted for review of the determination of the Commissioner of Labor.

The Department of Jurisdiction (Contracting Agency) shall comply with this order of the Commissioner of Labor or of the court with respect to the release of the funds so withheld.

Summary of Notice Posting Requirements

The current Prevailing Rate Schedule must be posted in a prominent and accessible place on the site of the public work project. The prevailing wage schedule must be encased in, or constructed of, materials capable of withstanding adverse weather conditions and be titled "PREVAILING RATE OF WAGES" in letters no smaller than two (2) inches by two (2) inches.

The "[Public Work Project](#)" notice must be posted at the beginning of the performance of every public work contract, on each job site.

Every employer providing workers. compensation insurance and disability benefits must post notices of such coverage in the format prescribed by the Workers. Compensation Board in a conspicuous place on the jobsite.

Every employer subject to the NYS Human Rights Law must conspicuously post at its offices, places of employment, or employment training centers, notices furnished by the State Division of Human Rights.

Employers liable for contributions under the Unemployment Insurance Law must conspicuously post on the jobsite notices furnished by the NYS Department of Labor.

Apprentices

Employees cannot be paid apprentice rates unless they are individually registered in a program registered with the NYS Commissioner of Labor. The allowable ratio of apprentices to journeyworkers in any craft classification can be no greater than the statewide building trade ratios promulgated by the Department of Labor and included with the Prevailing Rate Schedule. An employee listed on a payroll as an apprentice who is not registered as above or is performing work outside the classification of work for which the apprentice is indentured, must be paid the prevailing journeyworker's wage rate for the classification of work the employee is actually performing.

NYSDOL Labor Law, Article 8, Section 220-3, require that only apprentices individually registered with the NYS Department of Labor may be paid apprenticeship rates on a public work project. No other Federal or State Agency of office registers apprentices in New York State.

Persons wishing to verify the apprentice registration of any person must do so in writing by mail, to the NYSDOL Office of Employability Development / Apprenticeship Training, State Office Bldg. Campus, Bldg. 12, Albany, NY 12240 or by Fax to NYSDOL Apprenticeship Training (518) 457-7154. All requests for verification must include the name and social security number of the person for whom the information is requested.

The only conclusive proof of individual apprentice registration is written verification from the NYSDOL Apprenticeship Training Albany Central office. Neither Federal nor State Apprenticeship Training offices outside of Albany can provide conclusive registration information.

It should be noted that the existence of a registered apprenticeship program is not conclusive proof that any person is registered in that program. Furthermore, the existence or possession of wallet cards, identification cards, or copies of state forms is not conclusive proof of the registration of any person as an apprentice.

Interest and Penalties

In the event that an underpayment of wages and/or supplements is found:

- Interest shall be assessed at the rate then in effect as prescribed by the Superintendent of Banks pursuant to section 14-a of the Banking Law, per annum from the date of underpayment to the date restitution is made.
- A Civil Penalty may also be assessed, not to exceed 25% of the total of wages, supplements, and interest due.

Debarment

Any contractor or subcontractor and/or its successor shall be ineligible to submit a bid on or be awarded any public work contract or subcontract with any state, municipal corporation or public body for a period of five (5) years when:

- Two (2) willful determinations have been rendered against that contractor or subcontractor and/or its successor within any consecutive six (6) year period.
- There is any willful determination that involves the falsification of payroll records or the kickback of wages or supplements.

Criminal Sanctions

Willful violations of the Prevailing Wage Law (Article 8 of the Labor Law) may be a felony punishable by fine or imprisonment of up to 15 years, or both.

Discrimination

No employee or applicant for employment may be discriminated against on account of age, race, creed, color, national origin, sex, disability or marital status.

No contractor, subcontractor nor any person acting on its behalf, shall by reason of race, creed, color, disability, sex or national origin discriminate against any citizen of the State of New York who is qualified and available to perform the work to which the employment relates (NYS Labor Law, Article 8, Section 220-e(a)).

No contractor, subcontractor, nor any person acting on its behalf, shall in any manner, discriminate against or intimidate any employee on account of race, creed, color, disability, sex, or national origin (NYS Labor Law, Article 8, Section 220-e(b)).

The Human Rights Law also prohibits discrimination in employment because of age, marital status, or religion.

There may be deducted from the amount payable to the contractor under the contract a penalty of \$50.00 for each calendar day during which such person was discriminated against or intimidated in violation of the provision of the contract (NYS Labor Law, Article 8, Section 220-e(c)).

The contract may be cancelled or terminated by the State or municipality. All monies due or to become due thereunder may be forfeited for a second or any subsequent violation of the terms or conditions of the anti-discrimination sections of the contract (NYS Labor Law, Article 8, Section 220-e(d)).

Every employer subject to the New York State Human Rights Law must conspicuously post at its offices, places of employment, or employment training centers notices furnished by the State Division of Human Rights.

Workers' Compensation

In accordance with Section 142 of the State Finance Law, the contractor shall maintain coverage during the life of the contract for the benefit of such employees as required by the provisions of the New York State Workers' Compensation Law.

A contractor who is awarded a public work contract must provide proof of workers' compensation coverage prior to being allowed to begin work.

The insurance policy must be issued by a company authorized to provide workers' compensation coverage in New York State. Proof of coverage must be on form C-105.2 (Certificate of Workers' Compensation Insurance) and must name this agency as a certificate holder.

If New York State coverage is added to an existing out-of-state policy, it can only be added to a policy from a company authorized to write workers' compensation coverage in this state. The coverage must be listed under item 3A of the information page.

The contractor must maintain proof that subcontractors doing work covered under this contract secured and maintained a workers' compensation policy for all employees working in New York State.

Every employer providing worker's compensation insurance and disability benefits must post notices of such coverage in the format prescribed by the Workers' Compensation Board in a conspicuous place on the jobsite.

Unemployment Insurance

Employers liable for contributions under the Unemployment Insurance Law must conspicuously post on the jobsite notices furnished by the New York State Department of Labor.



Andrew M. Cuomo, Governor

Peter M. Rivera, Commissioner

NYSDEC

David Chiusano, Env. Engineer/Project Mgr.
625 Broadway
12th Floor
Albany NY 12233-7017

Schedule Year 2012 through 2013
Date Requested 12/13/2011
PRC# 2011010284

Location Chautauqua
Project ID# D008535
Project Type environmental remediation of recycle water pond.

Notice of Contract Award

New York State Labor Law, Article 8, Section 220.3a requires that certain information regarding the awarding of public work contracts, be furnished to the Commissioner of Labor. One "Notice of Contract Award" (PW 16, which may be photocopied), **MUST** be completed for **EACH** prime contractor on the above referenced project.

Upon notifying the successful bidder(s) of this contract, enter the required information and mail **OR** fax this form to the office shown at the bottom of this notice, **OR** fill out the electronic version via the NYSDOL website.

Contractor Information

All information must be supplied

Federal Employer Identification Number: _____		
Name: _____		
Address: _____ _____		
City: _____	State: _____	Zip: _____
Amount of Contract: \$ _____	Contract Type:	
Approximate Starting Date: ____/____/____	<input type="checkbox"/> (01) General Construction	
Approximate Completion Date: ____/____/____	<input type="checkbox"/> (02) Heating/Ventilation	
	<input type="checkbox"/> (03) Electrical	
	<input type="checkbox"/> (04) Plumbing	
	<input type="checkbox"/> (05) Other : _____	

Phone: (518) 457-5589 Fax: (518) 485-1870
W. Averell Harriman State Office Campus, Bldg. 12, Room 130, Albany, NY 12240

IMPORTANT NOTICE

FOR

CONTRACTORS & CONTRACTING AGENCIES

Social Security Numbers on Certified Payrolls

The Department of Labor is cognizant of the concerns of the potential for misuse or inadvertent disclosure of social security numbers. Identity theft is a growing problem and we are sympathetic to contractors' concerns with regard to inclusion of this information on payrolls if another identifier will suffice.

For these reasons, *the substitution of the use of the last four digits of the social security number on certified payrolls submitted to contracting agencies on public work projects is now acceptable to the Department of Labor.*

NOTE: This change does not affect the Department's ability to request and receive the entire social security number from employers during the course of its public work / prevailing wage investigations.

**To all State Departments, Agency Heads and Public Benefit Corporations
IMPORTANT NOTICE REGARDING PUBLIC WORK ENFORCEMENT FUND**

Budget Policy & Reporting Manual

B-610

Public Work Enforcement Fund

effective date December 7, 2005

1. Purpose and Scope:

This Item describes the Public Work Enforcement Fund (the Fund, PWEF) and its relevance to State agencies and public benefit corporations engaged in construction or reconstruction contracts, maintenance and repair, and announces the recently-enacted increase to the percentage of the dollar value of such contracts that must be deposited into the Fund. This item also describes the roles of the following entities with respect to the Fund:

- New York State Department of Labor (DOL),
- The Office of the State of Comptroller (OSC), and
- State agencies and public benefit corporations.

2. Background and Statutory References:

DOL uses the Fund to enforce the State's Labor Law as it relates to contracts for construction or reconstruction, maintenance and repair, as defined in subdivision two of Section 220 of the Labor Law. State agencies and public benefit corporations participating in such contracts are required to make payments to the Fund.

Chapter 511 of the Laws of 1995 (as amended by Chapter 513 of the Laws of 1997, Chapter 655 of the Laws of 1999, Chapter 376 of the Laws of 2003 and Chapter 407 of the Laws of 2005) established the Fund.

3. Procedures and Agency Responsibilities:

The Fund is supported by transfers and deposits based on the value of contracts for construction and reconstruction, maintenance and repair, as defined in subdivision two of Section 220 of the Labor Law, into which all State agencies and public benefit corporations enter.

Chapter 407 of the Laws of 2005 increased the amount required to be provided to this fund to .10 of one-percent of the total cost of each such contract, to be calculated at the time agencies or public benefit corporations enter into a new contract or if a contract is amended. The provisions of this bill became effective August 2, 2005.

To all State Departments, Agency Heads and Public Benefit Corporations
IMPORTANT NOTICE REGARDING PUBLIC WORK ENFORCEMENT FUND

OSC will report to DOL on all construction-related ("D") contracts approved during the month, including contract amendments, and then DOL will bill agencies the appropriate assessment monthly. An agency may then make a determination if any of the billed contracts are exempt and so note on the bill submitted back to DOL. For any instance where an agency is unsure if a contract is or is not exempt, they can call the Bureau of Public Work at the number noted below for a determination. Payment by check or journal voucher is due to DOL within thirty days from the date of the billing. DOL will verify the amounts and forward them to OSC for processing.

For those contracts which are not approved or administered by the Comptroller, monthly reports and payments for deposit into the Public Work Enforcement Fund must be provided to the Administrative Finance Bureau at the DOL within 30 days of the end of each month or on a payment schedule mutually agreed upon with DOL.

Reports should contain the following information:

- Name and billing address of State agency or public benefit corporation;
- State agency or public benefit corporation contact and phone number;
- Name and address of contractor receiving the award;
- Contract number and effective dates;
- Contract amount and PWEF assessment charge (if contract amount has been amended, reflect increase or decrease to original contract and the adjustment in the PWEF charge); and
- Brief description of the work to be performed under each contract.

Checks and Journal Vouchers, payable to the "New York State Department of Labor" should be sent to:

Department of Labor
Administrative Finance Bureau-PWEF Unit
Building 12, Room 464
State Office Campus
Albany, NY 12240

Any questions regarding billing should be directed to NYSDOL's Administrative Finance Bureau-PWEF Unit at (518) 457-3624 and any questions regarding Public Work Contracts should be directed to the Bureau of Public Work at (518) 457-5589.

Construction Industry Fair Play Act

Required Posting For Labor Law Article 25-B § 861-d

Construction industry employers must post the "Construction Industry Fair Play Act" notice in a prominent and accessible place on the job site.

Failure to post the notice can result in penalties of up to \$1,500 for a first offense and up to \$5,000 for a second offense.

The posting is included as part of this wage schedule. Additional copies may be obtained from the NYS DOL website, www.labor.ny.gov.

If you have any questions concerning the Fair Play Act, please call the State Labor Department toll-free at 1-866-435-1499 or email us at: dol.misclassified@labor.state.ny.us.



New York State Department of Labor
Required Notice under Article 25-B of the Labor Law

**ATTENTION ALL EMPLOYEES, CONTRACTORS AND SUBCONTRACTORS:
YOU ARE COVERED BY THE
CONSTRUCTION INDUSTRY FAIR PLAY ACT**

The law says that you are an employee unless:

- You are free from direction and control in performing your job AND
- You perform work that is not part of the usual work done by the business that hired you AND
- You have an independently established business

Your employer cannot consider you to be an independent contractor unless all three of these facts apply to your work.

**IT IS AGAINST THE LAW FOR AN EMPLOYER TO MISCLASSIFY EMPLOYEES AS
INDEPENDENT CONTRACTORS OR PAY EMPLOYEES OFF-THE-BOOKS.**

Employee rights. If you are an employee:

- You are entitled to state and federal worker protections such as
 - unemployment benefits, if unemployed through no fault of your own, able to work, and otherwise qualified
 - workers' compensation benefits for on-the-job injuries
 - payment for wages earned, minimum wage, and overtime (under certain conditions)
 - prevailing wages on public work projects
 - the provisions of the National Labor Relations Act and
 - a safe work environment
- It is a violation of this law for employers to retaliate against anyone who asserts their rights under the law. Retaliation subjects an employer to civil penalties, a private lawsuit or both.

Independent Contractors: If you are an independent contractor:

- You must pay all taxes required by New York State and Federal Law.

Penalties for paying off-the-books or improperly treating employees as independent contractors:

- **Civil Penalty** First Offense: up to \$2,500 per employee.
Subsequent Offense(s): up to \$5,000 per employee.
- **Criminal Penalty** First Offense: Misdemeanor - up to 30 days in jail, up to a \$25,000 fine and debarment from performing Public Work for up to one year.
Subsequent Offense(s): Misdemeanor - up to 60 days in jail, up to a \$50,000 fine and debarment from performing Public Work for up to 5 years.

If you have questions about your employment status or believe that your employer may have violated your rights and you want to file a complaint, call the Department of Labor at 1(866)435-1499 or send an email to dol.misclassified@labor.state.ny.us. All complaints of fraud and violations are taken seriously and you can remain anonymous.

Employer Name:

WORKER NOTIFICATION

(Labor Law §220, paragraph a of subdivision 3-a)

Effective February 24, 2008

This provision is an addition to the existing prevailing wage rate law, Labor Law §220, paragraph a of subdivision 3-a. It requires contractors and subcontractors to provide written notice to all laborers, workers or mechanics of the *prevailing wage rate* for their particular job classification *on each pay stub**. It also requires contractors and subcontractors to *post a notice* at the beginning of the performance of every public work contract *on each job site* that includes the telephone number and address for the Department of Labor and a statement informing laborers, workers or mechanics of their right to contact the Department of Labor if he/she is not receiving the proper prevailing rate of wages and/or supplements for his/her particular job classification. The required notification will be provided with each wage schedule, may be downloaded from our website www.labor.state.ny.us or made available upon request by contacting the Bureau of Public Work at 518-457-5589.

* In the event that the required information will not fit on the pay stub, an accompanying sheet or attachment of the information will suffice.



New York State Department of Labor
Bureau of Public Work

Attention Employees

THIS IS A: **PUBLIC WORK PROJECT**

If you are employed on this project as a **worker, laborer, or mechanic** you are entitled to receive the **prevailing wage and supplements rate** for the classification at which you are working.

Chapter 629 of
the Labor Laws
of 2007:

**These wages are set by law and must be posted
at the work site. They can also be found at:**
www.labor.ny.gov

If you feel that you have not received proper wages or benefits,
please call our nearest office.*

Albany	(518) 457-2744	Patchogue	(631) 687-4882
Binghamton	(607) 721-8005	Rochester	(585) 258-4505
Buffalo	(716) 847-7159	Syracuse	(315) 428-4056
Garden City	(516) 228-3915	Utica	(315) 793-2314
New York City	(212) 775-3568	White Plains	(914) 997-9507
Newburgh	(845) 568-5287		

* For New York City government agency construction projects, please
contact the Office of the NYC Comptroller at (212) 669-4443, or
www.comptroller.nyc.gov – click on Bureau of Labor Law.

Contractor Name: _____

Project Location: _____

OSHA 10-hour Construction Safety and Health Course – S1537-A

Effective July 18, 2008

This provision is an addition to the existing prevailing wage rate law, Labor Law §220, section 220-h. It requires that on all public work projects of at least \$250,000.00, all laborers, workers and mechanics working on the site, be certified as having successfully completed the OSHA 10-hour construction safety and health course. It further requires that the advertised bids and contracts for every public work contract of at least \$250,000.00, contain a provision of this requirement.

NOTE: The OSHA 10 Legislation only applies to workers on a public work project that are required, under Article 8, to receive the prevailing wage.

Where to find OSHA 10-hour Construction Course

1. NYS Department of Labor website for scheduled outreach training at:

www.labor.state.ny.us/workerprotection/safetyhealth/DOSH_ONSITE_CONSULTATION.shtm

2. OSHA Training Institute Education Centers:

Rochester Institute of Technology OSHA Education Center

Rochester, NY

Donna Winter

Fax (585) 475-6292

e-mail: dlwtpo@rit.edu

(866) 385-7470 Ext. 2919

www.rit.edu/~outreach/course.php3?CourseID=54

Atlantic OSHA Training Center

UMDNJ – School of Public Health

Piscataway, NJ

Janet Crooks

Fax (732) 235-9460

e-mail: crooksje@umdnj.edu

(732) 235-9455

<https://ophp.umdnj.edu/wconnect/ShowSchedule.awp?~~GROUP~AOTCON~10~>

Atlantic OSHA Training Center

University at Buffalo

Buffalo, New York

Joe Syracuse

Fax (716) 829-2806

e-mail: mailto:japs@buffalo.edu

(716) 829-2125

http://www.smbs.buffalo.edu/CENTERS/trc/schedule_OSHA.php

Keene State College

Manchester, NH

Leslie Singleton

e-mail: lsingletin@keene.edu

(800) 449-6742

www.keene.edu/courses/print/courses_oshacfm

3. List of trainers and training schedules for OSHA outreach training at:

www.OutreachTrainers.org

Requirements for OSHA 10 Compliance

Chapter 282 of the Laws of 2007, codified as Labor Law 220-h took effect on July 18, 2008. The statute provides as follows:

The advertised specifications for every contract for public work of \$250,000.00 or more must contain a provision requiring that every worker employed in the performance of a public work contract shall be certified as having completed an OSHA 10 safety training course. The clear intent of this provision is to require that all employees of public work contractors, required to be paid prevailing rates, receive such training “prior to the performing any work on the project.”

The Bureau will enforce the statute as follows:

All contractors and sub contractors must attach a copy of proof of completion of the OSHA 10 course to the first certified payroll submitted to the contracting agency and on each succeeding payroll where any new or additional employee is first listed.

Proof of completion may include but is not limited to:

- Copies of bona fide course completion card (*Note: Completion cards do not have an expiration date.*)
- Training roster, attendance record of other documentation from the certified trainer pending the issuance of the card.
- Other valid proof

******A certification by the employer attesting that all employees have completed such a course is not sufficient proof that the course has been completed.

Any questions regarding this statute may be directed to the New York State Department of Labor, Bureau of Public Work at 518-485-5696.

WICKS Reform 2008

(For all contracts advertised or solicited for bid on or after 7/1/08)

- Raises the threshold for public work projects subject to the Wicks Law requiring separate specifications and bidding for the plumbing, heating and electrical work. The total project's threshold would increase from \$50,000 to: \$3 million in Bronx, Kings, New York, Queens and Richmond counties; \$1.5 million in Nassau, Suffolk and Westchester counties; and \$500,000 in all other counties.
- For projects below the monetary threshold, bidders must submit a sealed list naming each subcontractor for the plumbing, HVAC and electrical work and the amount to be paid to each. The list may not be changed unless the public owner finds a legitimate construction need, including a change in specifications or costs or use of a Project Labor Agreement (PLA), and must be open to public inspection.
- Allows the state and local agencies and authorities to waive the Wicks Law and use a PLA if it will provide the best work at the lowest possible price. If a PLA is used, all contractors shall participate in apprentice training programs in the trades of work it employs that have been approved by the Department of Labor (DOL) for not less than three years. They shall also have at least one graduate in the last three years and use affirmative efforts to retain minority apprentices. PLA's would be exempt from Wicks, but deemed to be public work subject to prevailing wage enforcement.
- The Commissioner of Labor shall have the power to enforce separate specification requirements on projects, and may issue stop-bid orders against public owners for non-compliance.
- Other new monetary thresholds, and similar sealed bidding for non-Wicks projects, would apply to certain public authorities including municipal housing authorities, NYC Construction Fund, Yonkers Educational Construction Fund, NYC Municipal Water Finance Authority, Buffalo Municipal Water Finance Authority, Westchester County Health Care Association, Nassau County Health Care Corp., Clifton-Fine Health Care Corp., Erie County Medical Center Corp., NYC Solid Waste Management Facilities, and the Dormitory Authority.
- Reduces from 15 to 7 days the period in which contractors must pay subcontractors.

IMPORTANT INFORMATION

Regarding Use of Form PW30R

“Employer Registration for Use of 4 Day / 10 Hour Work Schedule”

To use the ‘4 Day / 10 Hour Work Schedule’:

There **MUST** be a *Dispensation of Hours (PW30)* in place on the project

AND

You **MUST** register your intent to work 4 / 10 hour days, by completing the PW30R Form.

REMEMBER...

The ‘4 Day / 10 Hour Work Schedule’ applies **ONLY** to Job Classifications and Counties listed on the PW30R Form.

Do not write in any additional Classifications or Counties.

(Please note : For each Job Classification check the individual wage schedule for specific details regarding their 4/10 hour day posting.)

Instructions for Completing Form PW30R

“Employer Registration for Use of 4 Day / 10 Hour Work Schedule”

Before completing Form PW30R check to be sure ...

- There is a *Dispensation of Hours* in place on the project.
- The 4 Day / 10 Hour Work Schedule applies to the Job Classifications you will be using.
- The 4 Day / 10 Hour Work Schedule applies to the County / Counties where the work will take place.

Instructions (Type or Print legibly):

Contractor Information:

- Enter the Legal Name of the business, FEIN, Street Address, City, State, Zip Code; the Company's Phone and Fax numbers; and the Company's email address (if applicable)
- Enter the Name of a Contact Person for the Company along with their Phone and Fax numbers, and the personal email address (if applicable)

Project Information:

- Enter the Prevailing Rate Case number (PRC#) assigned to this project
- Enter the Project Name / Type (i.e. Smithtown CSD – Replacement of HS Roof)
- Enter the Exact Location of Project (i.e. Smithtown HS, 143 County Route #2, Smithtown, NY; Bldgs. 1 & 2)
- If you are a Subcontractor, enter the name of the Prime Contractor for which you work
- On the Checklist of Job Classifications -
 - Go to pages 2 and 3 of the form
 - Place a checkmark in the box to the right of the Job Classification you are choosing
 - Mark all Job Classifications that apply

Do not write in any additional Classifications or Counties.

Requestor Information:

- Enter the name of the person submitting the registration, their title with the company, and the date the registration is filled out

Return Completed Form:

- **Mail** the completed PW30R form (3 pages) to: NYSDOL Bureau of Public Work, SOBC – Bldg.12 – Rm.130, Albany, NY 12240 **-OR-**
- **Fax** the completed PW30R form (3 pages) to: NYSDOL Bureau of Public Work at (518)485-1870



New York State Department of Labor
Bureau of Public Work
W. Averell Harriman State Office Campus
Building 12 - Room 130
Albany, New York 12240
Phone - (518) 457-5589 Fax - (518) 485-1870

Employer Registration for Use of 4 Day / 10 Hour Work Schedule

Before completing Form PW30R check to be sure ...

There is a *Dispensation of Hours* in place on the project.

The 4 Day / 10 Hour Work Schedule applies to the Job Classifications you will be using.

The 4 Day / 10 Hour Work Schedule applies to the County / Counties where the work will take place.

Please Type or Print the Requested Information

When completed ...

Mail to NYSDOL Bureau of Public Work, SOBC, Bldg. 12, Rm.130, Albany, NY 12240

-or-

Fax to NYSDOL Bureau of Public Work at (518) 485-1870

Contractor Information

Company Name: _____ FEIN: _____

Address: _____

City: _____ State: _____ Zip Code: _____

Phone Number _____ Fax Number: _____ Email Address: _____

Contact Person: _____

Phone No: _____ Fax No: _____ Email: _____

Project Information

Project PRC#: _____ Project Name/Type: _____

Exact Location
of Project: _____ County: _____

(If you are Subcontractor)

Prime Contractor Name: _____

Job Classification(s) to Work 4/10 Schedule: (Choose all that apply on Job Classification Checklist - Pages 2 & 3)
*** Do not write in any additional Classifications or Counties***

Requestor Information

Name: _____

Title: _____ Date : _____

Job Classification Checklist

(Place a checkmark by all classifications that will be using the 4/10 schedule)

*** Do not write in any additional Classifications or Counties***

Job Classification	Tag #	Applicable Counties	Check Box
Carpenter - Building	1042	Clinton, Essex, Franklin	<input type="checkbox"/>
Carpenter - Building	370	Albany, Fulton, Greene, Montgomery, Rensselaer, Schenectady, Schoharie	<input type="checkbox"/>
Carpenter - Building	370Z2	Hamilton, Warren, Washington	<input type="checkbox"/>
Carpenter - Building	370Z3	Saratoga	<input type="checkbox"/>
Carpenter - Heavy&Highway	370Saratoga	Saratoga	<input type="checkbox"/>
Carpenter - Heavy&Highway	370/1042H/H	Clinton, Essex, Franklin, Hamilton	<input type="checkbox"/>
Carpenter - Heavy&Highway	370H/H	Albany, Fulton, Montgomery, Rensselaer, Schenectady, Schoharie, Warren, Washington	<input type="checkbox"/>
Carpenter - Building	85	Livingston, Monroe, Ontario, Wayne, Wyoming	<input type="checkbox"/>
Carpenter - Building	281B	Cayuga, Seneca, Yates	<input type="checkbox"/>
Carpenter - Heavy/Highway	281HH	Cayuga, Seneca, Yates	<input type="checkbox"/>
Carpenter - Building/Heavy&Highway	280	Genesee, Niagara, Orleans, Wyoming	<input type="checkbox"/>
Carpenter - Building/Heavy&Highway	9	Erie, Cattaraugus	<input type="checkbox"/>
Carpenter - Heavy&Highway	66h	Allegany, Chautauqua, Cattaraugus	<input type="checkbox"/>
Carpenter - Building	66	Allegany, Chautauqua, Cattaraugus	<input type="checkbox"/>
Carpenter - Building	277 CST	Cortland, Schuyler, Tompkins	<input type="checkbox"/>
Carpenter - Building	277 JLS	Jefferson, Lewis, St. Lawrence	<input type="checkbox"/>
Carpenter - Building	277 omh	Herkimer, Madison, Oneida	<input type="checkbox"/>
Carpenter - Building	277 On	Onondaga	<input type="checkbox"/>
Carpenter - Building	277 Os	Oswego	<input type="checkbox"/>
Carpenter - Heavy/Highway	277h CST	Cortland, Schuyler, Tompkins	<input type="checkbox"/>
Carpenter - Heavy/Highway	277h JLS	Jefferson, Lewis, St. Lawrence	<input type="checkbox"/>
Carpenter - Heavy/Highway	277h On	Onondaga	<input type="checkbox"/>
Carpenter - Building/Heavy&Highway	277CDO	Chenango, Delaware, Otsego	<input type="checkbox"/>
Carpenter - Heavy/Highway	277oneidah	Herkimer, Madison, Oneida	<input type="checkbox"/>
Carpenter - Heavy/Highway	277h Os	Oswego	<input type="checkbox"/>
Electrician	25m	Nassau, Suffolk	<input type="checkbox"/>
Electrician	43	Cayuga, Chenango, Cortland, Herkimer, Madison, Oneida, Onondaga, Oswego, Otsego, Tompkins, Wayne	<input type="checkbox"/>
Electrician	840Teledata and 840 Z1	Cayuga, Onondaga, Ontario, Seneca, Wayne, Yates	<input type="checkbox"/>

Job Classification Checklist

(Place a checkmark by all classifications that will be using the 4/10 schedule)

*** Do not write in any additional Classifications or Counties***

Job Classification	Tag #	Applicable Counties	Check Box
Electrician	86	Genesee, Livingston, Monroe, Ontario, Orleans, Wayne, Wyoming	<input type="checkbox"/>
Electrician	910	Clinton, Essex, Franklin, Jefferson, Lewis, St. Lawrence	<input type="checkbox"/>
Electrician Lineman	1049Line/Gas	Nassau, Suffolk	<input type="checkbox"/>
Electrician Lineman	1249a	Albany, Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orange, Orleans, Oswego, Otsego, Putnam, Rensselaer, Rockland, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Wyoming, Yates	<input type="checkbox"/>
Elevator Constructor	138	Columbia, Delaware, Dutchess, Greene, Orange, Putnam, Rockland, Sullivan, Ulster, Westchester	<input type="checkbox"/>
Elevator Constructor	14	Allegany, Cattaraugus, Chautauqua, Erie, Genesee, Niagara, Orleans, Wyoming	<input type="checkbox"/>
Elevator Constructor	27	Chemung, Livingston, Monroe, Ontario, Schuyler, Seneca, Steuben, Wayne, Yates	<input type="checkbox"/>
Elevator Constructor	35	Albany, Clinton, Columbia, Essex, Franklin, Fulton, Greene, Hamilton, Herkimer, Montgomery, Oneida, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Warren, Washington	<input type="checkbox"/>
Elevator Constructor	62.1	Broome, Cayuga, Chenango, Cortland, Delaware, Jefferson, Lewis, Madison, Oneida, Onondaga, Oswego, St. Lawrence, Tioga, Tompkins	<input type="checkbox"/>
Glazier	660	Allegany, Cattaraugus, Chautauqua, Erie, Genesee, Niagara, Orleans, Wyoming	<input type="checkbox"/>
Glazier	660r	<u>Allegany, Cattaraugus, Chautauqua, Erie, Genesee, Niagara, Orleans, Wyoming</u>	<input type="checkbox"/>
Glazier	677.1	Jefferson, Lewis, Livingston, Monroe, Ontario, Seneca, St. Lawrence, Wayne, Yates	<input type="checkbox"/>
Glazier	667.Z-2	Cayuga, Cortland, Herkimer, Madison, Oneida, Onondaga, Oswego	<input type="checkbox"/>
Glazier	677z3	Broome, Chemung, Chenango, Delaware, Otsego, Schuyler, Steuben, Tioga, Tompkins	<input type="checkbox"/>
Glazier	667r.2	Cayuga, Cortland, Herkimer, Madison, Oneida, Onondaga, Oswego	<input type="checkbox"/>
Insulator - Heat & Frost	30-Syracuse	Broome, Cayuga, Chemung, Chenango, Cortland, Herkimer, Jefferson, Lewis, Madison, Oneida, Onondaga, Oswego, Otsego, Schuyler, Seneca, St. Lawrence, Tioga, Tompkins	<input type="checkbox"/>

Job Classification Checklist

(Place a checkmark by all classifications that will be using the 4/10 schedule)

*** Do not write in any additional Classifications or Counties***

Job Classification	Tag #	Applicable Counties	Check Box
Laborers - Residential Deconstruction, Demolition	601	Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Cortland, Delaware, Essex, Franklin, Genesee, Jefferson, Lewis, Livingston, Monroe, Onondaga, Ontario, Orleans, Oswego, Schuyler, Seneca, St. Lawrence, Steuben, Tioga, Tompkins, Warren, Wayne, Wyoming, Yates	<input type="checkbox"/>
Laborer - Building	621b	Allegany, Cattaraugus, Chautauqua	<input type="checkbox"/>
Laborer - Residential	621r	Allegany, Cattaraugus, Chautauqua	<input type="checkbox"/>
Mason - Building/Heavy&Highway	780	Bronx, Kings, Nassau, New York, Queens, Richmond, Suffolk	<input type="checkbox"/>
Operating Engineer - Heavy& Highway	832H	Allegany, Chemung, Genesee, Livingston, Monroe, Ontario, Schuyler, Steuben, Wayne, Yates	<input type="checkbox"/>
Operating Engineer - Heavy/Highway	137H/H	Putnam, Westchester	<input type="checkbox"/>
Painter	178 B	Broome, Chenango, Tioga	<input type="checkbox"/>
Painter	178 E	Chemung, Schuyler, Steuben	<input type="checkbox"/>
Painter	178 O	Delaware, Otsego	<input type="checkbox"/>
Painter	31	Cayuga, Herkimer, Lewis, Madison, Oneida, Onondaga, Ontario, Oswego, Seneca	<input type="checkbox"/>
Painter	38.O	Oswego	<input type="checkbox"/>
Painter	4-Buf,Nia,Olean	Allegany, Cattaraugus, Chautauqua, Erie, Genesee, Livingston, Niagara, Orleans, Steuben, Wyoming	<input type="checkbox"/>
Painter	4-Jamestown	Cattaraugus, Chautauqua	<input type="checkbox"/>
Painter	150	Livingston, Monroe, Ontario, Wayne, Yates	<input type="checkbox"/>
Sheetmetal Worker	46	Livingston, Monroe, Ontario, Seneca, Wayne, Yates	<input type="checkbox"/>
Teamster - Heavy&Highway	294h/h	Albany, Columbia, Fulton, Greene, Montgomery, Rensselaer, Saratoga, Schenectady, Schoharie, Warren, Washington	<input type="checkbox"/>
Teamster - Heavy&Highway	317a.hh	Allegany, Cayuga, Cortland, Seneca, Steuben, Tompkins, Wayne, Yates	<input type="checkbox"/>
Teamster - Heavy&Highway	693.H/H	Broome, Chenango, Delaware, Otsego, Tioga	<input type="checkbox"/>
Teamster - Building/Heavy&Highway	456	Putnam, Westchester	<input type="checkbox"/>

Introduction to the Prevailing Rate Schedule

Information About Prevailing Rate Schedule

This information is provided to assist you in the interpretation of particular requirements for each classification of worker contained in the attached Schedule of Prevailing Rates.

Classification

It is the duty of the Commissioner of Labor to make the proper classification of workers taking into account whether the work is heavy and highway, 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.

Prevailing Wage Schedules are issued separately for "General Construction Projects" and "Residential Construction Projects" on a county-by-county basis.

General Construction Rates apply to projects such as: Buildings, Heavy & Highway, and Tunnel and Water & Sewer rates.

Residential Construction Rates generally apply to construction, reconstruction, repair, alteration, or demolition of one family, two family, row housing, or rental type units intended for residential use.

Some rates listed in the Residential Construction Rate Schedule have a very limited applicability listed along with the rate. Rates for occupations or locations not shown on the residential schedule must be obtained from the General Construction Rate Schedule. Please contact the local Bureau of Public Work office before using Residential Rate Schedules, to ensure that the project meets the required criteria.

Paid Holidays

Paid Holidays are days for which an eligible employee receives a regular day's pay, but is not required to perform work. If an employee works on a day listed as a paid holiday, this remuneration is in addition to payment of the required prevailing rate for the work actually performed.

Overtime

At a minimum, all work performed on a public work project in excess of eight hours in any one day or more than five days in any workweek is overtime. However, the specific overtime requirements for each trade or occupation on a public work project may differ. Specific overtime requirements for each trade or occupation are contained in the prevailing rate schedules.

Overtime holiday pay is the premium pay that is required for work performed on specified holidays. It is only required where the employee actually performs work on such holidays.

The applicable holidays are listed under HOLIDAYS: OVERTIME. The required rate of pay for these covered holidays can be found in the OVERTIME PAY section listings for each classification.

Supplemental Benefits

Particular attention should be given to the supplemental benefit requirements. Although in most cases the payment or provision of supplements is 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 Journey-workers.

For example, the ratio 1:1,1:3 indicates the allowable initial ratio is one Apprentice to one Journeyworker. The Journeyworker must be in place on the project before an Apprentice is allowed. Then three additional Journeyworkers are needed before a second Apprentice is allowed. The last ratio repeats indefinitely. Therefore, three more Journeyworkers must be present before a third Apprentice can be hired, and so on.

Please call Apprentice Training Central Office at (518) 457-6820 if you have any questions.

Title (Trade)	Ratio
Boilermaker (Construction)	1:1,1:4
Boilermaker (Shop)	1:1,1:3
Carpenter (Bldg.,H&H, Pile Driver/Dockbuilder)	1:1,1:4
Carpenter (Residential)	1:1,1:3
Electrical (Outside) Lineman	1:1,1:2

Electrician (Inside)	1:1,1:3
Elevator/Escalator Construction & Modernizer	1:1,1:2
Glazier	1:1,1:3
Insulation & Asbestos Worker	1:1,1:3
Iron Worker	1:1,1:4
Laborer	1:1,1:3
Mason	1:1,1:4
Millwright	1:1,1:4
Op Engineer	1:1,1:5
Painter	1:1,1:3
Plumber & Steamfitter	1:1,1:3
Roofer	1:1,1:2
Sheet Metal Worker	1:1,1:3
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	518-457-2744	518-485-0240
Bureau of Public Work - Binghamton	607-721-8005	607-721-8004
Bureau of Public Work - Buffalo	716-847-7159	716-847-7650
Bureau of Public Work - Garden City	516-228-3915	516-794-3518
Bureau of Public Work - Newburgh	845-568-5287	845-568-5332
Bureau of Public Work - New York City	212-775-3568	212-775-3579
Bureau of Public Work - Patchogue	631-687-4882	631-687-4904
Bureau of Public Work - Rochester	585-258-4505	585-258-4708
Bureau of Public Work - Syracuse	315-428-4056	315-428-4671
Bureau of Public Work - Utica	315-793-2314	315-793-2514
Bureau of Public Work - White Plains	914-997-9507	914-997-9523
Bureau of Public Work - Central Office	518-457-5589	518-485-1870

Chautauqua County General Construction

Asbestos Worker

04/01/2013

JOB DESCRIPTION Asbestos Worker

DISTRICT 9

ENTIRE COUNTIES

Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Cortland, Erie, Genesee, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Niagara, Oneida, Onondaga, Ontario, Orleans, Oswego, Otsego, Schuyler, Seneca, St. Lawrence, Steuben, Tioga, Tompkins, Wayne, Wyoming, Yates

WAGES

Per hour

07/01/2012

Asbestos Worker
Removal &
Abatement Only

\$ 32.00

Only for the removal of insulation materials from mechanical systems which are not going to be scrapped.

SUPPLEMENTAL BENEFITS

Per hour paid

Journeyman

\$ 12.00

OVERTIME PAY

See (B, E, *Q, **T, V) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (2, 4, 6, 25) on HOLIDAY PAGE

*Code Q applies to 4, 6, & 25

**Code T applies to 2

9-12a - Removal Only

Boilermaker

04/01/2013

JOB DESCRIPTION Boilermaker

DISTRICT 3

ENTIRE COUNTIES

Allegany, Cattaraugus, Chautauqua, Chemung, Erie, Genesee, Livingston, Monroe, Niagara, Ontario, Orleans, Schuyler, Steuben, Wayne, Wyoming, Yates

WAGES

Per hour:

07/01/2012

Boilermaker \$ 29.64

The wage rate will be 90% of the above for Maintenance work on boilers less than 100,000 pph.

SUPPLEMENTAL BENEFITS

Per hour worked:

\$ 24.30**

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour:

1000 hour terms at the following percentage of Journeyman's wage:

1st	2nd	3rd	4th	5th	6th	7th	8th
65%	65%	70%	75%	80%	85%	90%	95%

Note - add \$1.00 per hour to the wage rate for 1st through 6th term.

Supplemental Benefits per hour worked:

1st to 6th	\$ 23.30*
7th to 8th	24.30**

* Note - \$22.41 of this amount to be paid at the same premium as the wages.
** Note - \$ 23.41 of this amount to be paid at the same premium as the wages.

3-7

Carpenter - Building	04/01/2013
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JOB DESCRIPTION Carpenter - Building

DISTRICT 3

ENTIRE COUNTIES

Chautauqua

PARTIAL COUNTIES

Allegany: Entire county except the Township of Alfred.

Cattaraugus: Entire county except the Township of Perrysburg and the Village of Gowanda.

WAGES

Per hour:	07/01/2012	06/01/2013	06/01/2014
		Additional	Additional
Carpenter	\$ 22.98	\$ 1.24	\$ 1.37
Floorlayer	22.98	1.24	1.37
Welder	23.98	1.24	1.37

An addition \$1.50 per hour on hazardous waste sites requiring personal protective equipment.

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day.

NOTE - In order to use the '4 Day/10 Hour Work Schedule,' you must submit an 'Employer Registration for Use of 4 Day/10 Hour Work Schedule,' form PW30R; additionally, there must be a dispensation of hours in place on the project.

SUPPLEMENTAL BENEFITS

Per hour worked:

\$ 15.17

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

Note - Saturday may be used as a make-up day at straight time when an employee has a unexcused absence during the week (applies only to those employees on a project that lost a day on that same project).

HOLIDAY

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

REGISTERED APPRENTICES

Wages per hour:

One year terms at the following percentage of Journeyman's wage:

1st	2nd	3rd	4th
50%	60%	70%	80%

Supplemental benefits per hour worked:

1st	2nd	3rd	4th
\$ 8.25	\$ 8.25	\$ 10.75	10.75

3-276B-All

Carpenter - Building / Heavy&Highway	04/01/2013
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JOB DESCRIPTION Carpenter - Building / Heavy&Highway

DISTRICT 3

ENTIRE COUNTIES

Allegany, Cattaraugus, Chautauqua, Erie, Genesee, Niagara, Orleans, Wyoming

WAGES

Per hour:	07/01/2012	06/01/2013
Building and Heavy Highway:		Additional
Piledriver	\$ 29.75	\$ 1.52
Dockbuilder	29.75	1.52
Marine Construction:		
Diver Tender	30.75*	1.52
Diver	41.37*	1.52

* Note - rate applies to all hours worked the day a diver dives. If a diver does not dive the piledriver / dockbuilder rate applies.

Pipe penetration rate for divers: 0' to 50' free, additional \$0.75 per foot per hour from 51' to 100', plus \$1.00 per foot per hour for 101' and deeper.

Depth pay for divers: 0' to 80' free, additional \$0.50 per foot per hour from 81' to 100', plus \$0.75 per foot per hour from 101' to 150', plus \$1.25 per foot per hour for 151' and deeper. The deepest dive of the day will constitute the depth pay.

Additional \$1.00 per hour for DOT and ABS Certified Welders.

Additional \$2.50 per hour for hazardous and toxic waste projects.

SUPPLEMENTAL BENEFITS

Per hour paid:

\$ 23.70

OVERTIME PAY

See (B, E, Q, V) on OVERTIME PAGE

HOLIDAY

Paid: See (2, 17) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour:

One year terms at the following percentage of Journeyman's wage:

1st	2nd	3rd	4th
50%	60%	70%	80%

Supplemental benefits per hour worked:

All terms

\$ 23.70

3-276BHH-All

Carpenter - Building / Heavy&Highway

04/01/2013

JOB DESCRIPTION Carpenter - Building / Heavy&Highway

DISTRICT 1

ENTIRE COUNTIES

Albany, Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orleans, Oswego, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Wyoming, Yates

WAGES

Wages per hour:

07/01/2012

07/01/2013

07/01/2014

An Additional

An Additional

Carpenter - ONLY for

Artificial Turf/Synthetic

Sport Surface Installer

\$ 27.21

\$ 0.80*

\$ 0.73*

Note - Does not include the operation of equipment. Please see Operating Engineers rates.

(*)To be allocated at a later date.

SUPPLEMENTAL BENEFITS

Per hour Paid:

07/01/2012

Journeyman

\$ 18.09

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (2, 17) on HOLIDAY PAGE

Overtime: See (5, 6, 16) on HOLIDAY PAGE

Notes:

When a holiday falls upon a Saturday, it shall be observed on the preceding Friday. When a holiday falls upon a Sunday, it shall be observed on the following Monday.

An employee taking an unexcused day off the regularly scheduled day before or after a paid Holiday shall not receive Holiday pay.

REGISTERED APPRENTICES

Wages per hour:

One year terms at the following percentage of Journeyman's wage:

1st	2nd	3rd	4th
50%	60%	70%	80%

Supplemental Benefits per hour paid:

07/01/2012

Carpenter

1st year term \$ 9.09

2nd year term 14.49

3rd year term 15.39

4th year term 16.29

1-42AtSS

Carpenter - Heavy&Highway**04/01/2013**

JOB DESCRIPTION Carpenter - Heavy&Highway

DISTRICT 3

ENTIRE COUNTIES

Allegany, Chautauqua

PARTIAL COUNTIES

Cattaraugus: Entire county except the Township of Perrysburg and the Village of Gowanda.

WAGES

Per hour: 07/01/2012 06/01/2013

Carpenter \$ 25.56 Additional \$ 1.36

Welder 26.56 1.36

An addition \$1.50 per hour on hazardous waste sites requiring personal protective equipment.

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Friday, provided the project duration is more than forty (40) hours.

NOTE - In order to use the '4 Day/10 Hour Work Schedule,' you must submit an 'Employer Registration for Use of 4 Day/10 Hour Work Schedule,' form PW30R; additionally, there must be a dispensation of hours in place on the project.

SUPPLEMENTAL BENEFITS

Per hour worked:

\$ 17.25

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (2, 17) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour:

One year terms at the following percentage of Journeyman's wage:

1st	2nd	3rd	4th
50%	60%	70%	80%

Supplemental benefits per hour worked:

1st term \$ 7.54

All other terms 17.25

3-276HH-All

Electrician**04/01/2013**

JOB DESCRIPTION Electrician

DISTRICT 3

ENTIRE COUNTIES

Chautauqua

PARTIAL COUNTIES

Allegany: Only the Townships of Alma, Bolivar, Centerville, Clarksville, Cuba, Friendship, Genesee, New Hudson, Rushford, Wirt and that portion of the Townships of Amity, Angelica, Belfast, Caneadea and Scio that are west of the Genesee River.
Cattaraugus: Only the Townships of Allegany, Carrollton, Cold Spring, Conewango, Dayton, Great Valley, Hinsdale, Humphrey, Ischua, Leon, Little Valley, Napoli, Olean, Portville, Red House, Randolph, Salamanca and South Valley.

WAGES

Per hour: 07/01/2012

Electrician* \$ 30.75

* Includes teledata work.

When shift work is mandated either in the job specification or by the contracting agency the following premiums apply:

17.3% for work from 4:30PM - 1:00AM

31.4% for work from 12:30AM - 9:00AM

Additional 15% above wage for work 40' above floor, or in underground mines or tunnels or from suspension-type personnel lift equipment.

SUPPLEMENTAL BENEFITS

Per hour paid: \$ 17.95*

* NOTE - add 5.5% of the posted straight time or applicable premium wage rate.

OVERTIME PAY

See (B, *E, Q, V) on OVERTIME PAGE

* Double-time for all work on Saturday in excess of 10 hours.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour:

Hour terms at the following percentage of Journeyman's wage:

0 to 1000	to 2000	to 2750	to 3500	to 4250	to 5000	to 5750	to 6500	to 7250	to 8000
35%	40%	55%	60%	65%	70%	75%	80%	85%	90%

Supplemental benefits per hour paid:

0 to 2000 to 3500 to 8000

\$ 9.55* \$ 14.55* \$ 17.95*

* NOTE - add 5.5% of the posted straight time or applicable premium wage rate.

3-106

Elevator Constructor

04/01/2013

JOB DESCRIPTION Elevator Constructor

DISTRICT 3

ENTIRE COUNTIES

Allegany, Cattaraugus, Chautauqua, Erie, Genesee, Niagara, Orleans, Wyoming

WAGES

Per hour:	07/01/2012	01/01/2013
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Elevator Constructor	\$ 43.13	\$ 43.36
Helper	30.19	30.35

** IMPORTANT NOTICE - EFFECTIVE 04/01/2009 **

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday.

NOTE - In order to use the '4 Day/10 Hour Work Schedule,' you must submit an 'Employer Registration for Use of 4 Day/10 Hour Work Schedule,' form PW30R; additionally, there must be a dispensation of hours in place on the project.

SUPPLEMENTAL BENEFITS

Per hour worked:	\$ 23.54*	\$ 25.19*
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* Note - add 6% of regular hourly rate for all hours worked.

OVERTIME PAY

See (D, O) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6, 15, 16) on HOLIDAY PAGE

Overtime: See (5, 6, 15, 16) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour:

One year terms at the following percentage of Journeyman's wage:

1st	2nd	3rd	4th
55%	65%	70%	80%

Supplemental benefits per hour worked:

\$ 23.54*

* Note - add 6% of regular hourly rate for all hours worked.

3-14

Glazier**04/01/2013**

JOB DESCRIPTION Glazier

DISTRICT 3

ENTIRE COUNTIES

Allegany, Cattaraugus, Chautauqua, Erie, Genesee, Niagara, Orleans, Wyoming

WAGES

Per hour: 07/01/2012

Glazier \$ 24.60

Working off Suspended

Scaffold (Swing Stage) 25.60

Maintenance 10.80*

* Note - This rate to be used only for all repair and replacement work such as glass breakage, glass replacement, door repair and board ups.

**** IMPORTANT NOTICE ****

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day.

NOTE - In order to use the '4 Day/10 Hour Work Schedule,' you must submit an 'Employer Registration for Use of 4 Day/10 Hour Work Schedule,' form PW30R; additionally, there must be a dispensation of hours in place on the project.

SUPPLEMENTAL BENEFITS

Per hour worked:

Journeyman Glazier \$ 16.92

Maintenance 10.67

OVERTIME PAY

See (B, E2, F, R) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE for Glazier and Glazier Apprentices.

Paid: See (5, 6) on HOLIDAY PAGE for Maintenance

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

REGISTERED APPRENTICES

Wages per hour:

Glazier: 1000 hour terms at the following percentage of Journeyman's wage:

1st	2nd	3rd	4th	5th	6th	7th	8th
40%	45%	50%	55%	60%	70%	80%	90%

Supplemental benefits per hour worked:

1st & 2nd terms \$ 6.30

3rd & 4th terms 7.15

All other terms 8.05

3-660

Insulator - Heat & Frost**04/01/2013**

JOB DESCRIPTION Insulator - Heat & Frost

DISTRICT 3

ENTIRE COUNTIES

Allegany, Cattaraugus, Chautauqua, Erie, Niagara, Wyoming

PARTIAL COUNTIES

Genesee: Only the Townships of Alabama, Alexander, Darien, Oakfield and Pembroke.

WAGES

Per Hour: 07/01/2012 05/01/2013
Additional

Heat & Frost Insulator \$ 29.70 \$ 1.70

SUPPLEMENTAL BENEFITS

Per hour worked:

\$ 18.24

OVERTIME PAY

See (B, *E, **Q) on OVERTIME PAGE

* Note - Double time after 10 hours on Saturday.

** Note - Triple time on Labor Day if WORKED.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour:

One year terms at the following percentage of Journeyman's wage:

1st	2nd	3rd	4th
50%	60%	70%	80%

Supplemental Benefits per hour worked:

1st and 2nd	\$ 14.09
All other terms	18.24

3-4

Ironworker

04/01/2013

JOB DESCRIPTION Ironworker

DISTRICT 3

ENTIRE COUNTIES

Cattaraugus, Chautauqua

PARTIAL COUNTIES

Allegany: Entire county except the Towns of Birdsall, Burns and Grove.

Erie: All except the Town of Grand Island north of Whitehaven Road.

Genesee: Only the Townships of Alabama, Alexander, Darien and Pembroke

Steuben: Only the Townships of Canisteo, Freemont, Greenwood, Hartsville, Hornell, Hornellsville, Howard, Jasper, Troupsburg and West Union

Wyoming: Only the Townships of Arcade, Attica, Bennington, Eagle, Gainsville, Java, Orangeville, Pike, Sheldon, Warsaw and Wethersfield.

WAGES

Per hour:	07/01/2012	05/01/2013	05/01/14
		Additional	Additional
Structural	\$ 28.03	\$ 1.10	\$ 1.20
Ornamental	28.03	1.10	1.20
Layout	28.03	1.10	1.20
Rodmen	28.03	1.10	1.20
Reinforcing	28.03	1.10	1.20
Welders	28.03	1.10	1.20
Riggers & Mach. Movers	28.03	1.10	1.20
Window Erector	25.68	1.10	1.20
Fence Erector	26.60	1.10	1.20

SUPPLEMENTAL BENEFITS

Per hour worked:

Fence erectors	\$ 21.67
All others	23.17

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour:

One year terms at the following wage:

1st	2nd	3rd	4th
\$ 16.00	\$ 18.00	\$ 20.00	\$ 22.00

Supplemental benefits per hour worked:

1st	2nd	3rd	4th
\$ 9.28	\$ 17.05	\$ 18.17	\$ 19.28

3-6

Laborer - Building**04/01/2013****JOB DESCRIPTION** Laborer - Building**DISTRICT** 3**ENTIRE COUNTIES**

Allegany, Chautauqua

PARTIAL COUNTIES

Cattaraugus: Entire county except the Town of Perrysburg and the Village of Gowanda.

WAGES

Per hour:	07/01/2012	07/01/2013	07/01/2014
		Additional	Additional
Basic and Flagman	\$ 21.60	\$ 1.00	\$ 1.00
Blaster, Nozzelman, Curb	22.60	1.00	1.00
and Flatwork Formsetter not	22.60	1.00	1.00
on structures, Pipelayer	22.60	1.00	1.00
Work 40 ft. and up	21.75	1.00	1.00
Hazardous Waste	23.10	1.00	1.00
Deleader & Asbestos Removal	23.10	1.00	1.00
OSHA Level C or	23.60	1.00	1.00
greater protective suit or	23.60	1.00	1.00
any anti-contamination	23.60	1.00	1.00
clothing is required	23.60	1.00	1.00
With supplied air respirator	24.60	1.00	1.00

**** IMPORTANT NOTICE ****

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day.

NOTE - In order to use the '4 Day/10 Hour Work Schedule,' you must submit an 'Employer Registration for Use of 4 Day/10 Hour Work Schedule,' form PW30R; additionally, there must be a dispensation of hours in place on the project.

SUPPLEMENTAL BENEFITS

Per hour worked:

\$ 12.64

OVERTIME PAY

See (B, E, *E2, Q) on OVERTIME PAGE

* Note - this applies only to those employees on a project that lost a day on that same project.

HOLIDAY

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

REGISTERED APPRENTICES

Wages per hour:

1000 hour terms at the following percentage of Journeyman's wage:

1st	2nd	3rd	4th
70%	80%	85%	90%

Supplemental benefits per hour worked:

\$ 12.64

3-621b

Laborer - Heavy&Highway**04/01/2013****JOB DESCRIPTION** Laborer - Heavy&Highway**DISTRICT** 3**ENTIRE COUNTIES****PARTIAL COUNTIES**

Chautauqua: Only the Townships of Arkwright, Charlotte, Cherry Creek, Dunkirk, Hanover, Pomfret, Portland, Ripley, Sheridan, Villenova and Westfield.

WAGES

GROUP A: Basic, Drill Helper, Flagman, Outboard and Hand Boats. Chain Saw, Concrete Aggregate Bin, Concrete Bootmen, Gin Buggy, Hand or Machine Vibrator, Jack Hammer, Mason Tender, Mortar Mixer, Pavement Breaker, Handlers of Steel Mesh, Small Generators for Laborers' Tools, Pipe Layers, Vibrator Type Rollers, Tamper, Drill Doctor Water Pump Operators (2" and Single Diaphragm), Nozzle (Asphalt, Gunite, Seeding, and Sand Blasting), Laborers on Chain Link Fence Erection, Rock Splitter and Power Unit, Pusher Type Concrete Saw and all other Gas, Electric, Oil and Air Tool Operators, Wrecking Laborer, Grade Checker.

GROUP B: All Rock or Drilling Machine Operators (Except Quarry Master and Similar Type), Acetylene Torch Operators and Powderman. Blasters, Curb and Flatwork Formsetters not on structures, Stone or Granite Curb Setters, Designated Asphalt Rakers (not on cold patch), Tail or Screw Operator on Asphalt Paver.

Per hour: 07/01/2012

GROUP A	\$ 25.29
GROUP B	25.69
Hazardous Waste	26.79

SUPPLEMENTAL BENEFITS

per hour worked:
\$ 16.35

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

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

REGISTERED APPRENTICES

Wages per hour:

1000 hour terms at the following percentage of Journeyman's wage:

1st	2nd	3rd	4th
70%	80%	85%	90%

Supplemental benefits per hour worked:

\$ 16.35

3-621h Zone 2

Laborer - Heavy&Highway

04/01/2013

JOB DESCRIPTION Laborer - Heavy&Highway

DISTRICT 3

ENTIRE COUNTIES

Allegany, Cattaraugus

PARTIAL COUNTIES

Chautauqua: Only the Townships of Busti, Carroll, Chautauqua, Clymer, Ellery, Ellicott, Ellington, French Creek, Gerry, Harmony, Kiantone, Mina, North Harmony, Poland, Sherman, Stockton and the City of Jamestown.

WAGES

GROUP A: Basic, Drill Helper, Flagman, Outboard and Hand Boats. Chain Saw, Concrete Aggregate Bin, Concrete Bootmen, Gin Buggy, Hand or Machine Vibrator, Jack Hammer, Mason Tender, Mortar Mixer, Pavement Breaker, Handlers of Steel Mesh, Small Generators for Laborers' Tools, Pipe Layers, Vibrator Type Rollers, Tamper, Drill Doctor Water Pump Operators (2" and Single Diaphragm), Nozzle (Asphalt, Gunite, Seeding, and Sand Blasting), Laborers on Chain Link Fence Erection, Rock Splitter and Power Unit, Pusher Type Concrete Saw and all other Gas, Electric, Oil and Air Tool Operators, Wrecking Laborer, Grade Checker.

GROUP B: All Rock or Drilling Machine Operators (Except Quarry Master and Similar Type), Acetylene Torch Operators and Powderman. Blasters, Curb and Flatwork Formsetters not on structures, Stone or Granite Curb Setters, Designated Asphalt Rakers (not on cold patch), Tail or Screw Operator on Asphalt Paver.

Per hour: 07/01/2012

GROUP A	\$ 24.34
GROUP B	24.74
Hazardous Waste	25.84

SUPPLEMENTAL BENEFITS

Per hour worked:

\$ 16.35

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

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

REGISTERED APPRENTICES

Wages per hour:

1000 hour terms at the following percentage of Journeyman's wage:

1st	2nd	3rd	4th
70%	80%	85%	90%

Supplemental benefits per hour worked:

\$ 16.35

3-621h Zone 1

Lineman Electrician

04/01/2013

JOB DESCRIPTION Lineman Electrician

DISTRICT 6

ENTIRE COUNTIES

Albany, Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orange, Orleans, Oswego, Otsego, Putnam, Rensselaer, Rockland, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Wyoming, Yates

WAGES

Per hour:

NOTE: Includes Teledata Work within Ten feet of High Voltage Transmission Lines

Below rates applicable on all overhead and underground distribution and maintenance work, and all overhead and underground transmission line work and the installation of fiber optic cable where no other construction trades are or have been involved. (14.01.01)

07/01/2012

Lineman /Techician	\$ 42.72
Welder/Cable Splicer	42.72
Digging Machine Operator	38.45
Tractor Trailer Driver	36.31
Groundman/Truck Driver	34.18
Mechanic 1st Class	34.18
Flagman	25.63

Additional \$1.00 per hour for entire crew when a helicopter is used.

Below rates applicable on all electrical sub-stations, switching structures, fiber optic cable and all other work not defined as "Utility outside electrical work". (14.02.01A)

Lineman/Technician	\$ 42.72
Cable Splicer pipe type cable	46.99
Certified Welder pipe type	44.86
Digging Machine Operator	38.45
Tractor Trailer Driver	36.31
Mechanic 1st Class	34.18
Groundman/Truck Driver	34.18
Flagman	25.63

Additional \$1.00 per hour for entire crew when a helicopter is used.

Below 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. (14.02.01B)

Lineman/Technician/Welder	\$ 44.01
Digging Machine Operator	39.61
Tractor Trailer Driver	37.41

Groundman/Truck Driver	35.21
Mech. 1st Class	35.21
Flagman	26.41
Certified Welder/Pipe Type Cable	46.21
Cable Splicer pipe type cable	48.41

Additional \$1.00 per hour for entire crew when a helicopter is used.

Below rates applicable on all overhead and underground transmission line work & fiber optic cable where other construction trades are or have been involved. This applies to transmission line work only, not other construction. (14.03.01)

Lineman/Tech./Welder	\$ 45.23
Cable splicer	45.23
Digging Machine Operator	40.71
Tractor Trailer Driver	38.45
Groundman/Truck Driver	36.18
Mechanic 1st Class	36.18
Flagman	27.14

Additional \$1.00 per hour for entire crew when a helicopter is used.

**** IMPORTANT NOTICE - EFFECTIVE 04/01/2009 ****

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day.

NOTE - In order to use the '4 Day/10 Hour Work Schedule,' you must submit an 'Employer Registration for Use of 4 Day/10 Hour Work Schedule,' form PW30R; additionally, there must be a dispensation of hours in place on the project.

SUPPLEMENTAL BENEFITS

Per hour worked including holidays listed below:

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

\$ 18.25
*plus 7.5% of
hourly wage paid

OVERTIME PAY

See (B, E, Q,) on OVERTIME PAGE. 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 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 %

HOLIDAY

Paid	See (5, 6, 8, 13, 25) on HOLIDAY PAGE plus Gov. of NYS Election Day.
Overtime	See (5, 6, 8, 13, 25) on HOLIDAY PAGE plus Gov. of NYS Election Day.

SUPPLEMENTS for holidays paid at straight time

REGISTERED APPRENTICES

(1000) hr terms at the following percentage of Journeyman's wage.

1st	2nd	3rd	4th	5th	6th	7th
60%	65%	70%	75%	80%	85%	90%

Supplemental Benefits per hour worked:

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

\$ 18.25
*plus 7.5% of
hourly wage paid

*NOTE: The 7.5% is based on the hourly wage paid, straight time rate or premium rate.

Lineman Electrician - Teledata**04/01/2013**

JOB DESCRIPTION Lineman Electrician - Teledata**DISTRICT 6****ENTIRE COUNTIES**

Albany, Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orange, Orleans, Oswego, Otsego, Putnam, Rensselaer, Rockland, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Westchester, Wyoming, Yates

WAGES

Per hour:

FOR WORK OUTSIDE BUILDING PROPERTY LINES.

	07/01/2012	01/01/2013	01/01/2014
Cable Splicer	\$ 27.99	\$ 28.55	\$ 29.12
Installer/Repairman	26.57	27.10	27.64
Teledata Lineman	26.57	27.10	27.64
Technician/Equip Oper	26.57	27.10	27.64
Groundman	14.09	14.37	14.66

NOTE: EXCLUDES Teledata work within ten feet of High Voltage (600 volts and over) transmission lines. For this work please see LINEMAN.

SUPPLEMENTAL BENEFITS

Per hour worked:

\$ 4.43	\$ 4.43	\$ 4.43
*plus 3% of hourly wage paid	*plus 3% of hourly wage paid	*plus 3% of hourly wage paid

*NOTE: The 3% is based on the hourly wage paid, straight time rate or premium rate.

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6, 16) on HOLIDAY PAGE

6-1249LT - Teledata

Lineman Electrician - Traffic Signal Lighting**04/01/2013**

JOB DESCRIPTION Lineman Electrician - Traffic Signal Lighting**DISTRICT 6****ENTIRE COUNTIES**

Albany, Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Cortland, Delaware, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orleans, Oswego, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Sullivan, Tioga, Tompkins, Warren, Washington, Wayne, Wyoming, Yates

WAGES

Per hour:

	07/01/2012
Lineman/Technician	\$ 38.25
Certified Welder	40.16
Digging Mach	34.43
Tractor trailer driver	32.51
Groundman Truck Driver	30.60
Mechanic 1st Class	30.60
Flagman	22.95

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.

SUPPLEMENTAL BENEFITS

Per hour worked:

All classifications	\$18.25
	*plus 7% of hourly wage paid

*NOTE: The 7% is based on the hourly wage paid, straight time rate or premium rate.
Supplements paid at STRAIGHT TIME rate for holidays.

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	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%

HOLIDAY

Paid See (5, 6, 8, 13, 25) on HOLIDAY PAGE plus Gov of NYS Election Day.
Overtime See (5, 6, 8, 13, 25) on HOLIDAY PAGE plus Gov of NYS Election Day.

REGISTERED APPRENTICES

WAGES: (1000) hour terms at the following percentage of Journeymans Wage.

1st	2nd	3rd	4th	5th	6th	7th
60%	65%	70%	75%	80%	85%	90%

SUPPLEMENTAL BENEFITS: Same as Journeyman/Technician.

6-1249a-LT

Lineman Electrician - Tree Trimmer

04/01/2013

JOB DESCRIPTION Lineman Electrician - Tree Trimmer

DISTRICT 6

ENTIRE COUNTIES

Albany, Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orange, Orleans, Oswego, Otsego, Putnam, Rensselaer, Rockland, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Wyoming, Yates

WAGES

Per hour:

Applies to line clearance, tree work and right-of-way preparation on all new or existing energized overhead or underground electrical, telephone and CATV lines. This also would include stump removal near underground energized electrical lines, including telephone and CATV lines.

07/01/2012

Tree Trimmer	\$ 22.08
Equip Operator	19.48
Mechanic	19.48
Truck Driver	16.46
Groundman	13.51
Flag person	9.62

SUPPLEMENTAL BENEFITS

Per hour worked:

\$ 7.88
*plus 3% of
hourly wage paid

Supplements paid at STRAIGHT TIME rate for holidays.

*NOTE: The 3% is based on the hourly wage paid, straight time rate or premium rate.

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6, 8, 15, 16, 25) on HOLIDAY PAGE
Overtime: See (5, 6, 8, 15, 16, 25) on HOLIDAY PAGE

6-1249TT

Mason - Building

04/01/2013

JOB DESCRIPTION Mason - Building

DISTRICT 5

ENTIRE COUNTIES

Chautauqua

PARTIAL COUNTIES

Allegany: Entire county except the Townships of Alfred, Almond, Andover and Burns.

Cattaraugus: Entire county except the Township of Perrysburg and the Village of Gowanda.

WAGES

Per hour:	07/01/2012	07/01/2013	07/01/2014
		Additional	Additional

Bricklayer	\$ 28.92	\$ 1.45	\$ 1.45
Cement Mason	28.92	1.45	1.45
Plasterer	28.92	1.45	1.45
Tuck pointer	28.92	1.45	1.45
Stone Mason	28.92	1.45	1.45

SUPPLEMENTAL BENEFITS

Per hour worked:

Journeyman	\$ 15.33
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OVERTIME PAY

See (B, B2, E, E2, Q) on OVERTIME PAGE

HOLIDAY

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

REGISTERED APPRENTICES

(1) year terms at the following percentage of Journeyman's wage.

1st	2nd	3rd	4th
55%	70%	80%	90%

Supplements per hour worked:

All terms	\$ 15.33
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5-3B - Jam - Z2

Mason - Heavy&Highway

04/01/2013

JOB DESCRIPTION Mason - Heavy&Highway

DISTRICT 5

ENTIRE COUNTIES

Allegany, Broome, Chautauqua, Chemung, Chenango, Cortland, Delaware, Genesee, Livingston, Monroe, Ontario, Orleans, Otsego, Schuyler, Seneca, Steuben, Tioga, Tompkins, Wayne, Wyoming, Yates

PARTIAL COUNTIES

Cattaraugus: Entire county except in the Township of Perrysburg and the Village of Gowanda only the Bricklayer classification applies.

Erie: Only the Bricklayer classification applies.

Niagara: Only the Bricklayer classification applies.

WAGES

Per hour:	07/01/2012
Cement Mason	\$ 30.12
Bricklayer	30.12

Add \$1.00 per hour for work from swing stage or swing scaffold, including rolling scaffold suspended from bridges.

SUPPLEMENTAL BENEFITS

Per hour worked:

Journeyman	\$ 19.16
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OVERTIME PAY

See (B, B2, E, E2, Q) on OVERTIME PAGE

HOLIDAY

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

REGISTERED APPRENTICES

Wages per hour:

750 hour terms at the following percentage of Journeyman's wage:

1st	2nd	3rd	4th	5th	6th	7th	8th
55%	60%	65%	70%	75%	80%	85%	90%

Supplemental benefits per hour worked:

All terms \$ 19.16

5-3h

Mason - Tile Finisher

04/01/2013

JOB DESCRIPTION Mason - Tile Finisher

DISTRICT 5

ENTIRE COUNTIES

Allegany, Broome, Chautauqua, Chemung, Chenango, Cortland, Delaware, Otsego, Schuyler, Steuben, Tioga, Tompkins

PARTIAL COUNTIES

Cattaraugus: With the exception of the Township of Perrysburg and the Village of Gowanda.

WAGES

Per hour

Building: 07/01/2012

Tile Finisher \$ 24.69

Marble, Slate, Terrazzo and Tile

Mason finisher 24.69

SUPPLEMENTAL BENEFITS

Per hour worked: \$ 12.61

OVERTIME PAY

See (B, B2, E, E2, Q) on OVERTIME PAGE

HOLIDAY

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

REGISTERED APPRENTICES

1st and 2nd term 1200 hours and 3rd term 1300 hours at the following percentage of rate.

1st	2nd	3rd
55%	60%	80%

Supplemental Benefits

1st	2nd	3rd
\$ 8.43	\$8.47	\$11.23

5-3TF - Z2

Mason - Tile Setter

04/01/2013

JOB DESCRIPTION Mason - Tile Setter

DISTRICT 5

ENTIRE COUNTIES

Allegany, Broome, Chautauqua, Chemung, Chenango, Cortland, Delaware, Otsego, Schuyler, Steuben, Tioga, Tompkins

PARTIAL COUNTIES

Cattaraugus: With the exception of the Township of Perrysburg and the Village of Gowanda.

WAGES

Per hour: 07/01/2012 07/01/2013 07/01/2014
Additional Additional

Tile Setter: \$ 28.28 \$ 1.45 \$ 1.45

Marble, Slate, Terrazzo and Tile

SUPPLEMENTAL BENEFITS

Per hour worked: \$13.62

OVERTIME PAY

See (B, B2, E, E2, Q) on OVERTIME PAGE

HOLIDAY

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

REGISTERED APPRENTICES

(1) year terms at the following percentage of joureyman's rate.

Terms	1st	2nd	3rd	4th
	55%	70%	80%	90%

Supplemental Benefits per hour worked:

Terms	1st	2nd	3rd	4th
	\$8.63	\$ 8.76	\$ 13.44	\$ 13.53

5-3TS - Z2

Millwright

04/01/2013

JOB DESCRIPTION Millwright

DISTRICT 3

ENTIRE COUNTIES

Allegany, Chautauqua

PARTIAL COUNTIES

Cattaraugus: Entire county except the Township of Perrysburg and the Village of Gowanda.

WAGES

Per hour:	07/01/2012	07/01/2013	07/01/2014
		Additional	Additional
Millwright	\$ 23.91	\$ 0.98	\$ 1.11
Certified Welder	25.16	0.98	1.11
Hazardous Waste Work	25.16	0.98	1.11

SUPPLEMENTAL BENEFITS

Per hour worked:

\$ 15.28

OVERTIME PAY

See (B, E, *E2, Q) on OVERTIME PAGE

*Or other condition beyond the employer's control, such as power failure, fire, or natural disaster.

HOLIDAY

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

REGISTERED APPRENTICES

Wages per hour:

1300 hour terms at the following percentage of Journeyman's wage:

1st	2nd	3rd	4th
60%	70%	80%	90%

Supplemental benefits per hour worked:

1st	2nd	3rd	4th
\$ 8.30	\$ 13.19	\$ 13.88	\$ 14.58

3-1163-All/Cat/Cha

Operating Engineer - Building

04/01/2013

JOB DESCRIPTION Operating Engineer - Building

DISTRICT 3

ENTIRE COUNTIES

Cattaraugus, Chautauqua, Erie, Orleans, Wyoming

PARTIAL COUNTIES

Genesee: Only that portion of the county that lies west of a line down the center of Route 98 excluding that area that lies within the City of Batavia.

WAGES

CLASS A: Air Hoist, All Boom Type Equipment, All Pans and Carry-Alls, Archer Hoist, Asphalt Curb and Gutter Machines, Asphalt Roller, Asphalt Spreader or Paver, Automatic Fine Grade Machine (CMI or similar, first and second operator), Backhoe and Pullhoe, Backhoe and Pullhoe (tractor mounted, rubber tired), Back Filling Machine, Belt Placer (CMI or similar type), Bending Machine (Pipe), Bituminous Spreader and Mixer, Blacktop Plants (Automated and Non-automated), Blast or Rotary Drill (Truck or Track Mounted), Blower for Burning Brush, Boiler (when used for power), Boom Truck (excluding pick-up and delivery), Boring Machine, Bulldozer, Cableway, Cage Hoist, Caisson Auger, Central Mix Plant (and all concrete batching plants), Cherry Picker, Concrete Cleaning Decontamination Machine Operator, Concrete Curb and Gutter Machine, Concrete Curing Machine, Concrete Cutters (Vermeer or Similar Type), Concrete Mixer (over 1/2 cu yd.), Concrete Pavement Spreaders and Finishers, Concrete Paver, Concrete Pump, Conveyor, Core Drill, Crane, Crusher, Decon of Equipment, Derrick, Dragline, Dredge, Drill Rig (Tractor Mounted), Dual Drum Paver, Electric Pump used in conjunction with Well Point Systems, Elevating Grader (self propelled or towed), Elevator, Excavator (all purpose, hydraulically operated), Farm Tractor with Accessories, Fine Grade Machine, Forklift, Front End Loader, Generator (10 outlets or more), Gradall, Grader, Grout or Guniting Machine, Head Tower, Heavy Equipment Robotics Operator/Mechanic, Helicopter (when used for hoisting), Hoist (one drum), Hoisting Engine, Horizontal Directional Drill Locator, Horizontal Directional Drill Operator, Hydraulic Boom, Hydraulic Hammer (self-propelled), Hydraulic Pipe Jack Machine (or similar type machine), Hydraulic Rock Expander (or similar type machine), Hydraulic System Pumps, Hydro Crane, Hydro Hammer (or similar type), Industrial Tractor, Jersey Spreader, Kolman Plant Loader (and similar type loaders), Laser Screed, Locomotive, Lubrication Truck, Maintenance Engineer, Maintenance, Lubrication Unit or Truck, Mine Hoist, Mixer for Stabilized Base (self-propelled), Monorail, Motorized Hydraulic Pin Puller, Motorized Hydraulic Seeder, Mucking Machine, Mulching Machine, Multiple Drum Hoist (more than one drum in use), Overhead Crane, Peine Crane (or similar type), Pile Driver, Plant Engineer, Pneumatic Mixer, Post Hole Digger and Driver, Power Broom, Pumpcrete, Push Button Hoist, Push or Snatch Cat, Quarry Master or equivalent, Road Widener, Rock Bit Sharpener (all types), Roller (all), Rolling Machine (pipe), Rotomill, Scissors Trucks, Lift, or Boom Lift of any type (when used for hoisting), Scoopmobile, Shovel, Sideboom, Skidsteer/Bobcat (Similar Type), Skimmer, Slip Form Paver (CMI or similar type), Snorkel/Vacuum Truck, Strato-Tower, Stump Chipping Machine, Tire Truck and Drivers performing tire repair (exclude outside vendor), Towed Roller, Tractor Drawn Belt-Type Grader/Loader, Tractor Shovel, Tractor with Towed Accessories, Tractor (when using winch power), Tractors, Trencher, Truck Crane, Truck Mechanic and Helper (exclude Teamsters when repairing their own trucks), Tunnel Shovel, Tube Finisher (CMI and similar type), Ultra High Pressure Waterjet Cutting Tool System Operator/Mechanic, Vacuum Blasting Machine Operator/Mechanic, Vibratory Compactor, Vibro Tamp, Well Drilling Machine, Well Point, Winch, Winch Truck with A Frame.

CLASS B: Aggregate Bin, Aggregate Plant, Apprentice Engineer, Apprentice Engineer Driver, Articulated Off Road Material Hauler, Boiler (used in conjunction with production), CMI and similar type Concrete Spreads (Apprentice Engineer), Cement Bin, Chipping Machine and Chip Spreader, Compressors (4 or less), Compressors (any size, but subject to other provisions for Compressors, Dust Collectors, Generators, Mechanical Heaters, Pumps, Welding Machines - four of any type or combination), Concrete Mixer (1/2 cu. yd. and under), Fireman, Form Tamper, Form Trucks (excluding Teamster or delivery), Fuel Truck or Drivers (exclude Teamster or delivery), Heaters, Heating Boiler (used for temporary heat), Helper on Lubrication Unit or Truck, Jeep Trencher, Power Heaterman, Power Plant in excess of 10 K.W., Pumps, Revinus Widener, Steam Boilers (if manning or license by local law is required), Steam Cleaner (when used for cleaning equipment on the job site), Welding Machine (1 machine over 300 amps or 2 or 3 machines regardless of amps).

Operating Engineer- Building:

Per hour: 07/01/2012

Master Mechanic	\$ 30.98
Asst. Master Mechanic	30.34
Crane (boom over 100ft)	30.66
" (boom over 200ft)	30.91
" (boom over 300ft)	31.41
CLASS A	29.91
CLASS B	25.41

Additional \$1.00 per hour for tunnel work.

Additional \$2.50 per hour for CHEMICAL, HAZARDOUS OR TOXIC WASTE projects.

Additional \$3.00 per hour for all lattice boom cranes and any hydraulic crane over 60 ton capacity.

SUPPLEMENTAL BENEFITS

Per hour:

Journeyman	\$ 26.56*
Apprentice Engineers	26.16*
Helper on lube truck	22.76*

Note: Benefits are paid at the same premium as the wages for overtime hours.

OVERTIME PAY

See (B, E, P, V) on OVERTIME PAGE

HOLIDAY

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

REGISTERED APPRENTICES

Wages per hour:

Receive \$0.40 per hour less than Journeymen with the exception of the Class B rate which is paid in full.

Supplemental benefits per hour:

\$ 26.16*

Note: Benefits are paid at the same premium as the wages for overtime hours.

3-17b

Operating Engineer - Heavy&Highway

04/01/2013

JOB DESCRIPTION Operating Engineer - Heavy&Highway

DISTRICT 3

ENTIRE COUNTIES

Cattaraugus, Chautauqua, Erie, Orleans, Wyoming

PARTIAL COUNTIES

Genesee: Only that portion of the county that lies west of a line down the center of Route 98 excluding that area that lies within the City of Batavia.

WAGES

CLASS A: Air Hoist, All Boom Type Equipment, All Pans and Carry-Alls, Asphalt Curb and Cutter Machines, Asphalt Roller, Asphalt Spreader or Paver, Automatic Fine Grade Machine (CMI or similar, first and second operator), Backhoe and Pullhoe (all), Back Filling Machine, Belt Placer (CMI or similar type), Bending Machine (pipe), Bituminous Spreader and Mixer, Blacktop Plant (all), Blast or Rotary Drill (Truck or Track Mounted), Blower for Burning Brush, Boiler (when used for power), Boom Truck, Boring Machine, Bulldozer, Cableway, Cage Hoist, Caisson Auger, Central Mix Plant (and all Concrete Batching Plants), Cherry Picker, Concrete Cleaning Decontamination Machine, Concrete Curb and Gutter Machine, Concrete Curing Machine, Concrete Mixer (over 1/2 cu. yd.), Concrete Pavement Spreaders and Finishers, Concrete Paver, Concrete Pump, Concrete Saw (self propelled), Conveyor, Conveying Vehicles Conveying Engineer's Equipment, Core Drill, Crane, Crusher, Decontamination of Equipment, Derrick, Dragline, Dredge, Drill Rig (Tractor Mounted), Dual Drum Paver, Electric Pump used in conjunction with Well Point Systems, Elevating Grader (self propelled or towed), Elevator, Excavator (all purpose, hydraulically operated), Farm Tractor with Accessories, Fine Grade Machine, Forklift, Front End Loader, Gradall, Grader, Grout or Guniting Machine, Head Tower, Heavy Equipment Robotics Operator/Mechanic, Hoist (all types), Hoisting Engine, Horizontal Directional Drill Locator, Horizontal Directional Drill Operator, Hydraulic Boom, Hydraulic Hammer (self propelled), Hydraulic Pipe Jack Machine, (or similar type machine), Hydraulic Rock Expander (or similar type machine), Hydraulic System Pumps, Industrial Tractor, Jersey Spreader, Kolman Plant Loader (and similar type Loaders), Laser Screed, Locomotive, Log Skidder (similar type), Maintenance Engineer, Maintenance, Lubrication Unit or Truck, Mine Hoist, Mixer for Stabilized Base (self propelled), Monorail, Motorized Hydraulic Pin Puller, Motorized Hydraulic Seeder, Mucking Machine, Mulching Machine, Overhead Crane, Parts Chasing, Peine Crane (or similar type), Pile Driver, Plant Engineer, Pneumatic Mixer, Post Hole Digger and Post Driver, Power Broom, Pump Crete, Push Button Hoist, Push or Snatch Cat, Quarry Master (or equivalent), Road Widener, Rock Bit Sharpener (all types), Roller (all), Rolling Machine (Pipe), Rotomill, Scoopmobile, Shovel, Side Boom, Skidsteer/Bobcat (similar type), Skimmer, Slip Form Paver (CMI or similar, first and second operator), Snorkel/Vacuum Truck, Strato-Tower, Tire Truck & Repair, Towed Roller, Tractor Drawn Belt-Type Grader/Loader, Tractor Shovel, Tractor with Towed Accessories, Tractors (when using winch power), Trencher, Truck Crane, Tug Boats, Tunnel Shovel, Tube Finisher (CMI and similar), Vacuum Blasting Machine Operator/Mechanic, Vibratory Compactor, Vibro Tamp, Waterjet Cutting Tool System Operator/Mechanic (Ultra High Pressure), Well Drilling Machine, Well Point, Winch, Winch Truck with A Frame.

CLASS B: Aggregate Bin, Aggregate Plant, Apprentice Engineer, Apprentice Engineer Driver, Articulated Off Road Material Hauler, CMI and similar type Concrete Spreads (Apprentice Engineer), Cement Bin, Chipping Machine and Chip Spreader, Compressors (4 or less), Compressors: any size, but subject to other provisions for Compressors, Dust Collectors, Generators, Mechanical Heaters, Pumps, Welding Machines (four of any type or combination), Concrete Mixer (1/2 cu. yd. and under), Fireman, Form Tamber, Fuel Truck, Heating Boiler (used for temporary heat), Helper on Lubrication Unit or Truck, Jeep Trencher, Power Heaterman, Power Plant in excess of 10 K.W., Pumps (4" or over), Revinius Widener, Steam Cleaner, Stump Chipping Machine, Welding Machine (1 machine over 300 amps or 2 or 3 machines regardless of amps).

Operating Engineer- Building Site, Heavy/Highway, Sewer/Water, Tunnel:

Per hour:	07/01/2012	07/01/2013
Master Mechanic	\$ 32.93	\$ 33.38
Asst.Master Mechanic	32.29	32.74
Crane(boom over 100ft)	32.61	33.06
" (boom over 200ft)	32.86	33.31
" (boom over 300ft)	33.36	33.81
CLASS A	31.86	32.31
CLASS B	27.36	27.81

Additional \$1.00 per hour for tunnel work

Additional \$2.50 per hour for CHEMICAL, HAZARDOUS OR TOXIC WASTE projects.

Additional \$3.00 per hour for all lattice boom cranes and any hydraulic crane over 60 ton capacity.

For work bid after 05/01/2005 an additional \$1.50 per hour when shift work is mandated either in the job specifications or by the contracting agency.

SUPPLEMENTAL BENEFITS

Per hour worked:

Journeyman	\$ 26.94*	\$ 28.44
Apprentice Engineers	26.54*	28.04
Helper on Lube Truck	26.54*	28.04

Note: Benefits are paid at the same premium as the wages for overtime hours.

* \$ 9.12 of the time and one half premium benefit must be paid as wages.

* \$ 18.24 of the double time premium benefit must be paid as wages.

OVERTIME PAY

See (B, E, Q, V) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour:

Receive \$0.40 per hour less than Journeymen with the exception of the Class B rate which is paid in full.

Supplemental benefits per hour worked:

\$ 26.54*

Note: Benefits are paid at the same premium as the wages for overtime hours.

* \$ 9.75 of the time and one half premium benefit must be paid as wages.

* \$ 19.49 of the double time premium benefit must be paid as wages.

3-17 hh/sw/t

Operating Engineer - Marine Construction

04/01/2013

JOB DESCRIPTION Operating Engineer - Marine Construction

DISTRICT 4

ENTIRE COUNTIES

Albany, Allegany, Bronx, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Kings, Lewis, Livingston, Madison, Monroe, Montgomery, Nassau, New York, Niagara, Oneida, Onondaga, Ontario, Orange, Orleans, Oswego, Otsego, Putnam, Queens, Rensselaer, Richmond, Rockland, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Suffolk, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Westchester, Wyoming, Yates

WAGES

Per Hour:

DREDGING OPERATIONS 07/01/2012

CLASS A

Operator, Leverman, \$ 32.89

Lead Dredgeman

CLASS A1

Dozer, Front Loader

Operator

To conform to Operating Engineer
Prevailing Wage in locality where work
is being performed including benefits.

CLASS B

Spider/Spill Barge Operator,

\$ 28.49

Tug Operator(over1000hp),

OperatorII, Fill Placer,

Derrick Operator, Engineer,

Chief Mate, Electrician,

Chief Welder,

Maintenance Engineer

Certified Welder,

\$ 26.84

Boat Operator(licensed)

CLASS C

Drag Barge Operator, \$ 26.14
Steward, Mate,
Assistant Fill Placer,

Welder (please add)\$ 0.06

Boat Operator \$ 25.29

CLASS D
Shoreman, Deckhand, \$ 21.09
Rodman, Scowman, Cook,
Messman, Porter/Janitor

Oiler(please add)\$ 0.09

SUPPLEMENTAL BENEFITS

Per Hour:

THE FOLLOWING SUPPLEMENTAL BENEFITS APPLY TO ALL CATEGORIES

All Classes A & B 07/01/2012
\$ 8.45 plus 7%
of straight time
wage overtime hours
add \$ 0.63

All Class C \$ 8.10 plus 8%
of straight time
wage overtime hours
add \$ 0.48

All Class D \$ 7.85 plus 8%
of straight time
wage overtime hours
add \$ 0.33

OVERTIME PAY

See (B, F, R) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6, 8, 15, 26) on HOLIDAY PAGE

4-25a-MarConst

Operating Engineer - Survey Crew

04/01/2013

JOB DESCRIPTION Operating Engineer - Survey Crew

DISTRICT 3

ENTIRE COUNTIES

Cattaraugus, Chautauqua, Erie, Orleans, Wyoming

PARTIAL COUNTIES

Genesee: Only that portion of the county that lies west of a line down the center of Route 98 excluding that area that lies within the City of Batavia.

WAGES

Per hour:

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

07/01/2012
Survey Rates:
Party Chief \$ 31.22
Instrument/Rod person 28.45

Additional \$3.00 per hr. for work in a Tunnel.

Additional \$2.50 per hr. for EPA or DEC certified toxic or hazardous waste work

SUPPLEMENTAL BENEFITS

Per hour worked:

Journeyman \$ 23.15

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

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

REGISTERED APPRENTICES

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

1st year 60%	\$ 17.07
2nd year 70%	19.92
3rd year 80%	22.76

SUPPLEMENTAL BENEFITS:

\$ 23.15

3-545 D.H.H.

Operating Engineer - Survey Crew - Consulting Engineer

04/01/2013

JOB DESCRIPTION Operating Engineer - Survey Crew - Consulting Engineer

DISTRICT 3

ENTIRE COUNTIES

Cattaraugus, Chautauqua, Erie, Orleans, Wyoming

PARTIAL COUNTIES

Genesee: Only that portion of the county that lies west of a line down the center of Route 98 excluding that area that lies within the City of Batavia.

WAGES

Per hour:

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.

Instrument Man- One who runs the instrument and assists the Party Chief.

Rodman- One who holds the rods and in general, assists the survey party.

07/01/2012

Survey Rates:

Party Chief	\$ 31.22
Instrument/Rodperson	28.45

Additional \$3.00 per hr. for work in a Tunnel.

Additional \$2.50 per hr. for EPA or DEC certified toxic or hazardous waste work

SUPPLEMENTAL BENEFITS

Per hour worked:

\$ 23.15

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

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

3-545 DCE

Painter

04/01/2013

JOB DESCRIPTION Painter

DISTRICT 3

ENTIRE COUNTIES

Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Cortland, Delaware, Erie, Genesee, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Niagara, Oneida, Onondaga, Ontario, Orleans, Oswego, Otsego, Schuyler, Seneca, St. Lawrence, Steuben, Tioga, Tompkins, Wayne, Wyoming, Yates

WAGES

Per hour:	07/01/2012	05/01/2013	05/01/2014
		Additional	Additional
Bridge*	\$ 35.70	\$ 2.00	\$ 2.00
Tunnel*	35.70	2.00	2.00
Tank*	33.70	2.00	2.00

For Bridge Painting Contracts, ALL WORKERS on and off the bridge (including Flagmen) are to be paid Painter's Rate; the contract must be ONLY for Bridge Painting.

* Note an additional \$1.00 per hour is required when the contracting agency or project specification requires any shift to start prior to 6:00am or after 12:00 noon.

SUPPLEMENTAL BENEFITS

Per hour worked:

\$ 21.30

OVERTIME PAY

Exterior work only See (B, E4*, F, R) on OVERTIME PAGE.

All other work See (B, F, R) on OVERTIME PAGE.

* Note - Saturday is payable at straight time if the employee misses work, except where a doctor's or hospital verification of illness is produced Monday through Friday when work was available to the employee.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour:

1000 hour terms at the following percentage of Journeyman's wage rate:

1st	2nd	3rd	4th	5th	6th
50%	55%	60%	65%	75%	85%

Supplemental benefits per hour worked:

1st & 2nd terms	\$ 3.07
3rd & 4th terms	5.07
5th & 6th terms	6.07

3-4-Bridge, Tunnel, Tank

Painter

04/01/2013

JOB DESCRIPTION Painter

DISTRICT 3

ENTIRE COUNTIES

Allegany, Erie, Genesee, Niagara, Orleans, Wyoming

PARTIAL COUNTIES

Cattaraugus: Entire County except the Townships of Conewango, Leon, Napoli, New Albion, Randolph and South Valley.

Chautauqua: Only the Townships of Awkright, Dunkirk, Hanover, Pomfret, Portland, Sheridan and Villenova.

Livingston: Only the Townships of North Dansville, Nunda, Ossian, Portage, Sparta, Spring Water and West Sparta.

Steuben: Only the Townships of Avoca, Canisteo, Cohocton, Dansville, Fremont, Greenwood, Hartsville, Hornellsville, Howard, Jasper, Prattsburg, Pulteney, Troupsburg, Tuscarora, Urbana, Wayland, Wayne, Woodhull, West Union, Wheeler, and the City of Hornell.

WAGES

Per hour:	07/01/2012	05/01/2013	05/01/2014
		Additional	Additional
Basic Rate (Brush & Roll)	\$ 24.68	\$ 0.74	\$ 1.04
Spray painting, wallcovering	24.93	0.74	1.04
Abrasive and hyroblasting	24.93	0.74	1.04
Taping/DryWall Finisher	25.18	0.74	1.04
Skeleton Steel*	25.43	0.74	1.04

* Skeleton Steel: No floors, walls or ceiling are constructed, including radio and television towers, flagpoles, smokestacks, cranes and the abatement of coatings with lead, asbestos and/or arsenic, etc.

** IMPORTANT NOTICE - EFFECTIVE 04/01/2009 **

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day.

NOTE - In order to use the '4 Day/10 Hour Work Schedule,' you must submit an 'Employer Registration for Use of 4 Day/10 Hour Work Schedule,' form PW30R; additionally, there must be a dispensation of hours in place on the project.

SUPPLEMENTAL BENEFITS

Per hour worked:

\$ 19.86

OVERTIME PAY

Exterior work only See (B, E4*, F, R) on OVERTIME PAGE.
All other work See (B, F, R) on OVERTIME PAGE.

*Note - Saturday is payable at straight time if the employee misses work, except where a doctor's or hospital verification of illness is produced Monday through Friday when work was available to the employee.

HOLIDAY

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

REGISTERED APPRENTICES

Wages per hour:

Painter/Decorator: 1000 hour terms at the following percentage of Journeyman's Basic wage rate:

1st	2nd	3rd	4th	5th	6th	7th	8th
50%	55%	60%	65%	70%	75%	80%	90%

Taper/Drywall Finisher: 1000 hour terms at the following percentage of Journeyman's Taper wage:

1st	2nd	3rd	4th	5th	6th
50%	55%	60%	65%	75%	85%

Supplemental benefits per hour worked:

Painter/Decorator and Taper/Drywall Finisher:

1st & 2nd terms	\$ 2.07
3rd & 4th terms	5.07
All other terms	6.07

3-4-Buf, Nia, Olean

Painter

04/01/2013

JOB DESCRIPTION Painter

DISTRICT 3

ENTIRE COUNTIES

PARTIAL COUNTIES

Cattaraugus: Only the Townships of Conewango, Leon, Napoli, New Albion, Randolph and South Valley.

Chautauqua: Only the Townships of Busti, Carroll, Charlotte, Chautauqua, Cherry Creek, Clymer, Ellery, Ellicott, Ellington, French Creek, Gerry, Harmony, Kiantone, Mina, North Harmony, Poland, Ripley, Sherman, Stockton, Westfield and the City of Jamestown.

WAGES

Per hour:	07/01/2012	05/01/2013	05/01/2014
		Additional	Additional
Brush & Roller, taping,	\$ 23.54	\$ 0.74	\$ 1.04
wallcovering, swing & bosun	23.54	0.74	1.04
under 3 stories or under 35 ft	23.54	0.74	1.04
Swing & bosun over 3 stories or	23.79	0.74	1.04
over 35 feet, steel painting	23.79	0.74	1.04
All spraying, steam cleaning &	24.19	0.74	1.04
sandblasting, all toxic coating	24.19	0.74	1.04
Stacks	24.84	0.74	1.04

**** IMPORTANT NOTICE - EFFECTIVE 04/01/2009 ****

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day.

NOTE - In order to use the '4 Day/10 Hour Work Schedule,' you must submit an 'Employer Registration for Use of 4 Day/10 Hour Work Schedule,' form PW30R; additionally, there must be a dispensation of hours in place on the project.

SUPPLEMENTAL BENEFITS

Per hour worked:

\$ 13.59

OVERTIME PAY

Exterior work only See (B, E4*, F, R) on OVERTIME PAGE.
All other work See (B, F, R) on OVERTIME PAGE.

*Note - Saturday is payable at straight time if the employee misses work, except where a doctor's or hospital verification of illness is produced Monday through Friday when work was available to the employee.

HOLIDAY

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

REGISTERED APPRENTICES

Wages per hour:

Painter/Decorator: 1000 hour terms at the following percentage of Journeyman's Basic wage rate:

1st	2nd	3rd	4th	5th	6th	7th	8th
50%	55%	60%	65%	70%	75%	80%	90%

Taper/Drywall Finisher: 1000 hour terms at the following percentage of Journeyman's Taper wage:

1st	2nd	3rd	4th	5th	6th
50%	55%	60%	65%	75%	85%

Supplemental benefits per hour worked:

Painter/Decorator and Taper/Drywall Finisher:

1st & 2nd terms	\$ 2.07
3rd & 4th terms	5.07
All other terms	6.07

3-4-Jamestown

Painter - Metal Polisher

04/01/2013

JOB DESCRIPTION Painter - Metal Polisher

DISTRICT 9

ENTIRE COUNTIES

Albany, Allegany, Bronx, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Kings, Lewis, Livingston, Madison, Monroe, Montgomery, Nassau, New York, Niagara, Oneida, Onondaga, Ontario, Orange, Orleans, Oswego, Otsego, Putnam, Queens, Rensselaer, Richmond, Rockland, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Suffolk, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Westchester, Wyoming, Yates

WAGES

07/01/2012

Metal Polisher	\$ 26.11
Metal Polisher**	\$ 27.02
Metal Polisher***	\$ 29.61

**Note: Applies on New Construction & complete renovation

*** Note: Applies when working on scaffolds over 34 feet.

SUPPLEMENTAL BENEFITS

Per Hour: 07/01/2012

Journeyworker:

All classification \$ 12.92

OVERTIME PAY

See (B, E, Q, T) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6, 11, 15, 16, 25, 26) on HOLIDAY PAGE

Overtime: See (5, 6, 9, 11, 15, 16, 25, 26) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour:

One (1) year term at the following wage rates:

1st	2nd	3rd
\$13.50	\$15.00	\$18.00

Supplemental benefits:

Per hour paid:

1st	2nd	3rd
\$10.27	\$10.39	\$10.63

9-8A/28A-MP

Plumber

04/01/2013

JOB DESCRIPTION Plumber

DISTRICT 3

ENTIRE COUNTIES

PARTIAL COUNTIES

Allegany: Only the Townships of Alma, Amity, Bolivar, Clarksville, Cuba, Friendship, Genesee, Wirt and that portion of Scio which lies west of Rt. 19.

Cattaraugus: Only the Townships of Allegany, Carrollton, Conewango, Cold Spring, Great Valley, Hinsdale, Humphrey, Ischua, Little Valley, Napoli, Olean, Portville, Randolph, Red House, Salamanca, South Valley, the City of Olean, the City of Salamanca and the Allegany Indian Reservation.

Chautauqua: Only the Townships of Busti, Carroll, Chautauqua, Clymer, Ellery, Ellicott, Ellington, French Creek, Gerry, Harmony, Kiantone, Mina, North Harmony, Poland, Sherman, and the City of Jamestown.

WAGES

Per hour: 07/01/2012 05/01/2013

		Additional
Plumber	\$ 29.29*	\$ 1.82
Steamfitter	29.29*	1.82

*Note - Add 10% (ten-percent) to wage when HAZMAT training is required or when OSHA compliant respirator protection is required.

SUPPLEMENTAL BENEFITS

Per hour worked:

\$ 20.03*

* Note - \$1.76 of this amount must be paid at the same premium as the wage.

OVERTIME PAY

See (*B1, Q) on OVERTIME PAGE

* 9th and 10th hour on Saturday to be paid at time and one half.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6, 16) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour:

One year terms at the following percentage of Journeyman's wage:

1st	2nd	3rd	4th	5th
45%	55%	65%	75%	90%

Add \$1.00 per hour for Hazmat work.

Supplemental benefits per hour worked:

\$ 15.84*

* Note - \$1.76 of this amount must be paid at the same premium as the wage.

3-22-Southern

Plumber

04/01/2013

JOB DESCRIPTION Plumber

DISTRICT 3

ENTIRE COUNTIES

Erie, Niagara, Wyoming

PARTIAL COUNTIES

Allegany: Only the Townships of Allen, Angelica, Belfast, Caneadea, Centerville, Granger, Hume, New Hudson and Rushford

Cattaraugus: Only the Townships of Ashford, Dayton, East Otto, Ellicottville, Farmersville, Franklinville, Freedom, Leon, Lyndon, Machias, Mansfield, New Albion, Otto, Perrysburg, Persia and Yorkshire.

Chautauqua: Only the Townships of Arkwright, Charlotte, Cherry Creek, Dunkirk, Hanover, Pomfret, Portland, Ripley, Sheridan, Stockton, Villenova and Westfield.

Genesee: Only the Townships of Alabama, Alexander, Batavia, Darien, Elba, Oakfield, Pembroke and the City of Batavia.

Orleans: Only the Townships of Ridgeway, Shelby and Yates.

WAGES

Per hour: 07/01/2012 05/01/2013

		Additional
Plumber	\$ 31.38*	\$ 1.82
Steamfitter	31.38*	1.82

*Note - Add 10% (ten-percent) to wage when HAZMAT training is required or when OSHA compliant respirator protection is required.

SUPPLEMENTAL BENEFITS

Per hour worked:

\$ 20.03*

* Note - \$1.76 of this amount must be paid at the same premium as the wage.

OVERTIME PAY

See (*B1, Q) on OVERTIME PAGE

* 9th and 10th hour on Saturday to be paid at time and one half.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6, 16) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour:

One year terms at the following percentage of Journeyman's wage:

1st	2nd	3rd	4th	5th
45%	55%	65%	75%	90%

Add \$1.00 per hour for Hazmat work.

Supplemental benefits per hour worked:

\$ 15.84*

* Note - \$1.76 of this amount must be paid at the same premium as the wage.

3-22-Buffalo, Niagara

Roofer

04/01/2013

JOB DESCRIPTION Roofer

DISTRICT 3

ENTIRE COUNTIES

Allegany, Cattaraugus, Chautauqua

WAGES

Per hour:	07/01/2012	05/01/2013
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		Additional
Roofer	\$ 25.74	\$ 1.00
Waterproofing	25.74	1.00

Asbestos Removal with respirator and protective suit add \$1.00 per hour.

SUPPLEMENTAL BENEFITS

Per hour worked:

\$ 11.96

OVERTIME PAY

See (B, E, E2, Q) on OVERTIME PAGE

HOLIDAY

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

REGISTERED APPRENTICES

Wages per hour:

750 hour terms at the following percentage of Journeyman's wage"

1st	2nd	3rd	4th	5th	6th
50%	50%	60%	70%	80%	90%

Supplemental benefits per hour paid:

1st & 2nd terms	\$ 0.25
All other terms	11.96

3-210

Sheetmetal Worker

04/01/2013

JOB DESCRIPTION Sheetmetal Worker

DISTRICT 3

ENTIRE COUNTIES

Cattaraugus, Chautauqua

WAGES

Per hour:	07/01/2012	01/01/2013
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\$ 26.02	\$ 26.25
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The following premiums apply when shift work is mandated in the job specification or by the contracting agency:

15% when the majority of the hours are worked between the hours of 3:30PM - 1:00AM

20% when the majority of the hours are worked between the hours of 11:00PM - 9:00AM

SUPPLEMENTAL BENEFITS

Per hour worked:

\$ 18.26*	\$ 18.43*
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* Note - Add 3% of the posted straight time or applicable premium wage rate.

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

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

REGISTERED APPRENTICES

Wages per hour:

1000 hour year terms at the following percentage of Journeyman's wage:

1st	2nd	3rd	4th	5th	6th	7th	8th
40%	45%	50%	55%	60%	65%	70%	75%

Supplemental Benefits

	07/01/2012	01/01/2013
1st term	\$ 9.58*	\$ 9.75*
2nd term	10.04*	10.21*
3rd term	11.81*	11.99*
4th term	12.39*	12.57*
5th term	12.98*	13.15*
6th term	13.57*	13.75*
7th term	14.16*	14.33*
8th term	14.75*	14.93*

* Note - Add 3% of the posted straight time or applicable premium wage rate.

3-112-Jamestown

Sprinkler Fitter

04/01/2013

JOB DESCRIPTION Sprinkler Fitter

DISTRICT 1

ENTIRE COUNTIES

Albany, Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orleans, Oswego, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Tioga, Tompkins, Warren, Washington, Wayne, Wyoming, Yates

WAGES

Per hour		
	07/01/2012	01/01/2013
Sprinkler	\$ 29.83	\$ 29.83
Fitter		

SUPPLEMENTAL BENEFITS

Per hour worked

Journeyman	\$ 20.37	\$ 20.52
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OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

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

Note: When a holiday falls on Sunday, the following Monday shall be considered a holiday and all work performed on either day shall be at the double time rate. When a holiday falls on Saturday, the preceding Friday shall be considered a holiday and all work performed on either day shall be at the double time rate.

REGISTERED APPRENTICES

Wages per hour

For Apprentices HIRED PRIOR TO 04/01/2010:

One Half Year terms at the following wage

1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
\$ 15.08	\$ 15.08	\$ 16.26	\$ 17.77	\$ 19.28	\$ 20.79	\$ 22.29	\$ 23.80	\$ 25.31	\$ 26.82

Supplemental Benefits per hour worked

	07/01/2012	01/01/2013
1st & 2nd Terms	\$ 8.60	\$ 8.60
3rd Term	14.72	14.87
4th Term	14.76	14.91
5th Term	20.06	20.21
6th Term	20.10	20.25
7th Term	20.15	20.30
8th Term	20.19	20.34
9th Term	20.24	20.39
10th Term	20.28	20.43

For Apprentices HIRED ON OR AFTER 04/01/2010:

One Half Year terms at the following wage

1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
\$ 13.57	\$ 15.08	\$ 16.26	\$ 17.77	\$ 19.28	\$ 20.79	\$ 22.29	\$ 23.80	\$ 25.31	\$ 26.82

Supplemental Benefits per hour worked

	07/01/2012	01/01/2013
1st Term	\$ 8.56	\$ 8.56
2nd Term	8.60	8.60
3rd Term	14.72	14.87
4th Term	14.76	14.91
5th Term	15.31	15.46
6th Term	15.35	15.50
7th Term	15.40	15.55
8th Term	15.44	15.59
9th Term	15.49	15.64
10th Term	15.53	15.68

1-669

Teamster - Building / Heavy&Highway

04/01/2013

JOB DESCRIPTION Teamster - Building / Heavy&Highway

DISTRICT 3

ENTIRE COUNTIES

Cattaraugus, Chautauqua

PARTIAL COUNTIES

Allegany: Entire county except the Townships of Alfred, Almond, Burns and West Almond.

WAGES

GROUP 1: Warehousemen, Yardmen, Truck Helpers, Pickups, Panel Trucks, Flatboy Material Trucks (straight jobs), Single Axle Dump Trucks, Dumpsters, Material Checkers and Receivers, Greasers, Truck Tiremen, Mechanics Helpers and Parts Chasers, Tandems and Batch Trucks, Mechanics, Dispatcher, Semi-Trailers, Low-boy Trucks, Asphalt Distributor Trucks, and Agitator, Mixer Trucks and Dumpcrete type vehicles, Truck Mechanic, Fuel Trucks.

GROUP 2: Specialized Earth Moving Equipment, Euclid type, or similar off-highway where not self-loading, Straddle (Ross) Carrier, and self-contained concrete mobile truck, Off-highway Tandem Back-Dump, Twin Engine Equipment and Double-Hitched Equipment where not self-loading.

Per hour:	07/01/2012	04/01/2013	04/01/2014
		Additional	Additional
GROUP 1	\$ 27.48	\$ 1.00	\$ 1.00
GROUP 2	27.48	1.00	1.00

SUPPLEMENTAL BENEFITS

Per hour paid:	07/01/2012	04/01/2013	04/01/2014
	\$ 11.24	\$ 12.79	\$ 13.40

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 20) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

3-264

Welder**04/01/2013**

JOB DESCRIPTION Welder**DISTRICT 1****ENTIRE COUNTIES**

Albany, Allegany, Bronx, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Kings, Lewis, Livingston, Madison, Monroe, Montgomery, Nassau, New York, Niagara, Oneida, Onondaga, Ontario, Orange, Orleans, Oswego, Otsego, Putnam, Queens, Rensselaer, Richmond, Rockland, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Suffolk, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Westchester, Wyoming, Yates

WAGES

Per hour 07/01/2012

Welder (To be paid the same rate of the mechanic performing the work)

OVERTIME PAY**HOLIDAY**

1-As Per Trade

Overtime Codes

Following is an explanation of the code(s) listed in the OVERTIME section of each classification contained in the attached schedule. Additional requirements may also be listed in the HOLIDAY section.

- (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
- (B1) Time and one half of the hourly rate for the 9th & 10th hours week days and the 1st 8 hours on Saturday.
Double the hourly rate for all additional hours
- (B2) Time and one half of the hourly rate after 40 hours per week
- (C) Double the hourly rate after 7 hours per day
- (C1) Double the hourly rate after 7 and one half hours per day
- (D) Double the hourly rate after 8 hours per day
- (D1) Double the hourly rate after 9 hours per day
- (E) Time and one half of the hourly rate on Saturday
- (E1) Time and one half 1st 4 hours on Saturday Double the hourly rate all additional Saturday hours
- (E3) Between November 1st and March 3rd Saturday may be used as a make-up day at straight time when a day is lost during that week due to inclement weather, provided a given employee has worked between 16 and 32 hours that week
- (E2) Saturday may be used as a make-up day at straight time when a day is lost during that week due to inclement weather
- (E4) Saturday and Sunday may be used as a make-up day at straight time when a day is lost during that week due to inclement weather
- (F) Time and one half of the hourly rate on Saturday and Sunday
- (G) Time and one half of the hourly rate on Saturday and Holidays
- (H) Time and one half of the hourly rate on Saturday, Sunday, and Holidays
- (I) Time and one half of the hourly rate on Sunday
- (J) Time and one half of the hourly rate on Sunday and Holidays
- (K) Time and one half of the hourly rate on Holidays
- (L) Double the hourly rate on Saturday
- (M) Double the hourly rate on Saturday and Sunday
- (N) Double the hourly rate on Saturday and Holidays
- (O) Double the hourly rate on Saturday, Sunday, and Holidays
- (P) Double the hourly rate on Sunday
- (Q) Double the hourly rate on Sunday and Holidays
- (R) Double the hourly rate on Holidays
- (S) Two and one half times the hourly rate for Holidays, if worked
- (S1) Two and one half times the hourly rate the first 8 hours on Sunday or Holidays One and one half times the hourly rate all additional hours.
- (T) Triple the hourly rate for Holidays, if worked

- (U) Four times the hourly rate for Holidays, if worked
- (V) Including benefits at SAME PREMIUM as shown for overtime
- (W) Time and one half for benefits on all overtime hours.

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

Holiday Codes

PAID Holidays:

Paid Holidays are days for which an eligible employee receives a regular day's pay, but is not required to perform work. If an employee works on a day listed as a paid holiday, this remuneration is in addition to payment of the required prevailing rate for the work actually performed.

OVERTIME Holiday Pay:

Overtime holiday pay is the premium pay that is required for work performed on specified holidays. It is only required where the employee actually performs work on such holidays. The applicable holidays are listed under HOLIDAYS: OVERTIME. The required rate of pay for these covered holidays can be found in the OVERTIME PAY section listings for each classification.

Following is an explanation of the code(s) listed in the HOLIDAY section of each classification contained in the attached schedule. The Holidays as listed below are to be paid at the wage rates at which the employee is normally classified.

- (1) None
- (2) Labor Day
- (3) Memorial Day and Labor Day
- (4) Memorial Day and July 4th
- (5) Memorial Day, July 4th, and Labor Day
- (6) New Year's, Thanksgiving, and Christmas
- (7) Lincoln's Birthday, Washington's Birthday, and Veterans Day
- (8) Good Friday
- (9) Lincoln's Birthday
- (10) Washington's Birthday
- (11) Columbus Day
- (12) Election Day
- (13) Presidential Election Day
- (14) 1/2 Day on Presidential Election Day
- (15) Veterans Day
- (16) Day after Thanksgiving
- (17) July 4th
- (18) 1/2 Day before Christmas
- (19) 1/2 Day before New Years
- (20) Thanksgiving
- (21) New Year's Day
- (22) Christmas
- (23) Day before Christmas
- (24) Day before New Year's
- (25) Presidents' Day
- (26) Martin Luther King, Jr. Day
- (27) Memorial Day



New York State Department of Labor - Bureau of Public Work
State Office Building Campus
Building 12 - Room 130
Albany, New York 12240

REQUEST FOR WAGE AND SUPPLEMENT INFORMATION

As Required by Articles 8 and 9 of the NYS Labor Law

Fax (518) 485-1870 or mail this form for new schedules or for determination for additional occupations.

This Form Must Be Typed

Submitted By:

(Check Only One)

☐

Contracting Agency

☐

Architect or Engineering Firm

☐

Public Work District Office

Date:

A. Public Work Contract to be let by: (Enter Data Pertaining to Contracting/Public Agency)

1. Name and complete address ☐ (Check if new or change)

Telephone: ()

Fax: ()

E-Mail:

2. NY State Units (see Item 5)

☐ 01 DOT

☐ 02 OGS

☐ 03 Dormitory Authority

☐ 04 State University
Construction Fund

☐ 05 Mental Hygiene
Facilities Corp.

☐ 06 OTHER N.Y. STATE UNIT

☐ 07 City

☐ 08 Local School District

☐ 09 Special Local District, i.e.,
Fire, Sewer, Water District

☐ 10 Village

☐ 11 Town

☐ 12 County

☐ 13 Other Non-N.Y. State
(Describe)

3. SEND REPLY TO ☐ (check if new or change)
Name and complete address:

Telephone:()

Fax: ()

E-Mail:

4. SERVICE REQUIRED. Check appropriate box and provide project information.

☐ New Schedule of Wages and Supplements.

APPROXIMATE BID DATE :

☐ Additional Occupation and/or Redetermination

PRC NUMBER ISSUED PREVIOUSLY FOR
THIS PROJECT :

OFFICE USE ONLY

B. PROJECT PARTICULARS

5. Project Title

Description of Work

Contract Identification Number

Note: For NYS units, the OSC Contract No.

6. Location of Project:

Location on Site

Route No/Street Address

Village or City

Town

County

7. Nature of Project - Check One:

☐ 1. New Building

☐ 2. Addition to Existing Structure

☐ 3. Heavy and Highway Construction (New and Repair)

☐ 4. New Sewer or Waterline

☐ 5. Other New Construction (Explain)

☐ 6. Other Reconstruction, Maintenance, Repair or Alteration

☐ 7. Demolition

☐ 8. Building Service Contract

8. OCCUPATION FOR PROJECT :

☐ Construction (Building, Heavy
Highway/Sewer/Water)

☐ Tunnel

☐ Residential

☐ Landscape Maintenance

☐ Elevator maintenance

☐ Exterminators, Fumigators

☐ Fire Safety Director, NYC Only

☐ Guards, Watchmen

☐ Janitors, Porters, Cleaners,
Elevator Operators

☐ Moving furniture and
equipment

☐ Trash and refuse removal

☐ Window cleaners

☐ Other (Describe)

9. Has this project been reviewed for compliance with the Wicks Law involving separate bidding?

YES ☐

NO ☐

10. Name and Title of Requester

Signature



NEW YORK STATE DEPARTMENT OF LABOR
Bureau of Public Work - Debarment List

**LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE
AWARDED ANY PUBLIC WORK CONTRACT**

Under Article 8 and Article 9 of the NYS Labor Law, a contractor, sub-contractor and/or its successor shall be debarred and ineligible to submit a bid on or be awarded any public work or public building service contract/sub-contract with the state, any municipal corporation or public body for a period of five (5) years from the date of debarment when:

- Two (2) final determinations have been rendered within any consecutive six-year (6) period determining that such contractor, sub-contractor and/or its successor has WILLFULLY failed to pay the prevailing wage and/or supplements
- One (1) final determination involves falsification of payroll records or the kickback of wages and/or supplements

NOTE: The agency issuing the determination and providing the information, is denoted under the heading 'Fiscal Officer'. DOL = NYS Dept. of Labor; NYC = New York City Comptroller's Office; AG = NYS Attorney General's Office; DA = County District Attorney's Office.

A list of those barred from bidding, or being awarded, any public work contract or subcontract with the State, under section 141-b of the Workers' Compensation Law, may be obtained at the following link, on the NYS DOL Website:

<https://dbr.labor.state.ny.us/EDList/searchPage.do>

NYSDOL Bureau of Public Work Debarment List 03/27/2013

Article 8

AGENCY	Fiscal Officer	FEIN	EMPLOYER NAME	EMPLOYER DBA NAME	ADDRESS	DEBARMENT START DATE	DEBARMENT END DATE
DOL	DOL		4618 FOSTER AVE LLC		C/O KAHAN & KAHAN 225 BROADWAY-SUITE 715NEW YORK NY 10007	02/05/2013	02/05/2018
DOL	NYC		A & T IRON WORKS INC		25 CLIFF STREET NEW ROCHELLE NY 10801	12/21/2009	12/21/2014
DOL	DOL	*****0711	A ULIANO & SON LTD		22 GRIFFEN COURT MILLER PLACE NY 11746	10/26/2010	10/26/2015
DOL	DOL		A ULIANO CONSTRUCTION		22 GRIFFEN COURT MILLER PLACE NY 11746	10/26/2010	10/26/2015
DOL	NYC	*****5804	AAR/CO ELECTRIC INC		5902 AVENUE N BROOKLYN NY 11234	03/20/2009	03/20/2014
DOL	NYC	*****4486	ABBAY PAINTING CORP		21107 28TH AVENUE BAYSIDE NY 11360	07/02/2012	07/02/2017
DOL	DOL	*****9095	ABDO TILE CO		6179 EAST MOLLOY ROAD EAST SYRACUSE NY 13057	06/25/2010	07/02/2017
DOL	DOL	*****9095	ABDO TILE COMPANY		6179 EAST MOLLOY ROAD EAST SYRACUSE NY 13057	06/25/2010	07/02/2017
DOL	DOL	*****0635	ABOVE ALL PUMP REPAIR CORP		360 KNICKERBOCKER AVENUE BATAVIA NY 11716	10/20/2008	10/20/2013
DOL	DOL	*****1219	ABSOLUTE GENERAL CONTRACTING INC		1229 AVENUE U BROOKLYN NY 11229	01/28/2013	01/28/2018
DOL	AG	*****8219	ACTIVE CABLING INC		C/O FRANK DECAPITE 7 SYCAMORE ROAD DRWOODBURY NY 11797	10/02/2008	10/01/2013
DOL	DOL		ADAM A CEMERYS		2718 CURRY ROAD SCHENECTADY NY 12303	07/08/2010	07/08/2015
DOL	DOL	*****7584	ADAM'S FLOOR COVERING LLC		2718 CURRY ROAD SCHENECTADY NY 12303	07/08/2010	02/15/2017
DOL	DOL		ADESUWA UWUIGBE		P O BOX 21-1022 BROOKLYN NY 11221	05/16/2012	05/16/2017
DOL	DOL		AFFORDABLE PAINTING PLUS		367 GREEVES ROAD NEW HAMPTON NY 10958	10/01/2010	10/01/2015
DOL	DOL		ALBERT CASEY		43-28 54TH STREET WOODSIDE NY 11377	07/01/2011	07/01/2016
DOL	DOL		ALEJANDRO MATOS		C/O SEVEN STAR ELECTRICAL 23-24 STEINWAY STREETASTORIA NY 11105	06/27/2011	06/27/2016
DOL	DOL	*****8740	ALLSTATE ENVIRONMENTAL CORP		C/O JOSE MONTAS 27 BUTLER PLACEYONKERS NY 10710	03/18/2011	03/15/2017
DOL	DOL	*****8534	ALPHA INTERIORS INC		513 ACORN STREET/ SUITE C DEER PARK NY 11729	05/27/2010	05/27/2015
DOL	DOL	*****8291	AMIR'S VISION INC		230 PRATT STREET BUFFALO NY 14204	09/17/2008	09/17/2013
DOL	NYC		ANDERSON LOPEZ		670 SOUTHERN BLVD BRONX NY 10455	06/14/2011	06/14/2016
DOL	DOL		ANDREW DIPAUL		C/O CONSOLIDATED INDUSTRI 2051 ROUTE 44/55MODENA NY 12548	12/11/2012	12/11/2017
DOL	AG		ANTHONY BRANCA		700 SUMMER STREET STAMFORD CT	11/24/2009	11/24/2014
DOL	DA		ANTHONY CARDINALE		58-48 59TH STREET MASPETH NY 11378	05/16/2012	05/16/2017
DOL	DOL		ANTHONY POSELLA		30 GLEN HOLLOW ROCHESTER NY 14622	10/19/2009	10/19/2014
DOL	DOL		ANTHONY TAORMINA		215 MCCORMICK DRIVE BOHEMIA NY 11716	05/20/2009	05/20/2014
DOL	DOL		ANTHONY ULIANO		22 GRIFFEN COURT MILLER PLACE NY 11746	10/26/2010	10/26/2015
DOL	DOL	*****3020	APCO CONTRACTING CORP		24 SOUTH MARYLAND AVENUE PORT WASHINGTON NY 11050	09/24/2012	09/24/2017
DOL	DOL	*****8688	ARC MECHANICAL CORP		215 MCCORMICK DRIVE BOHEMIA NY 11716	05/20/2009	05/20/2014
DOL	DOL	*****8482	ARGO CONTRACTING CORP		5752 WEST WEBB ROAD YOUNGSTOWN OH 44515	05/21/2008	05/21/2013
DOL	NYC		ARIE BAR		5902 AVENUE N BROOKLYN NY 11234	03/20/2009	03/20/2014
DOL	DOL	*****9336	ARTIERI SPECIALTIES LLC	SWITZER SALES	107 STEVENS STREET LOCKPORT NY 14094	11/04/2009	11/04/2014
DOL	DOL	*****3953	ASCAPE LANDSCAPE & CONSTRUCTION CORP		634 ROUTE 303 BLAUVELT NY 10913	07/26/2012	07/26/2017

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DOL	DOL	*****2993	AST DRYWALL & ACOUSTICS INC		46 JOHN STREET - STE 711 NEW YORK NY 10038	12/16/2008	12/16/2013
DOL	DOL	*****2534	B & B CONCRETE CONTRACTORS INC		55 OLD TURNPIKE ROAD SUITE 612 NANUET NY 10954	02/04/2011	02/04/2016
DOL	NYC		BASIL ROMEO		243-03 137TH AVENUE ROSEDALE NY 11422	03/25/2010	03/25/2015
DOL	DOL		BEATRICE ORTEGA		764 BRADY AVE - APT 631 BRONX NY 10462	05/21/2008	05/21/2013
DOL	DOL	*****2294	BEDELL CONTRACTING CORP		2 TINA LANE HOPEWELL JUNCTION NY 12533	01/06/2012	01/06/2017
DOL	DOL		BENNY VIGLIOTTI		C/O LUVIN CONSTRUCTION CO P O BOX 357 CARLE PLACE NY 11514	03/15/2010	03/15/2015
DOL	NYC		BERNARD COHNEN		193 HARWOOD PLACE PARAMUS NJ 07652	05/14/2008	05/14/2013
DOL	DOL	*****6999	BEST ROOFING OF NEW JERSEY LLC		30 MIDLAND AVENUE WALLINGTON NJ 07057	11/05/2010	11/05/2015
DOL	DOL		BIAGIO CANTISANI		200 FERRIS AVENUE WHITE PLAINS NY 10603	12/04/2009	05/04/2017
DOL	DOL	*****8501	BLOCKHEAD CONCRETE & PAVING INC		P O BOX 71 CHEEKTOWAGA NY 14225	09/03/2008	09/03/2013
DOL	NYC	*****8377	BOSPHORUS CONSTRUCTION CORPORATION		3817 KINGS HIGHWAY-STE 1D BROOKLYN NY 11234	06/30/2010	06/30/2015
DOL	DOL		BRIAN HOXIE		2219 VALLEY DRIVE SYRACUSE NY 13207	12/04/2009	12/04/2014
DOL	DOL	*****4311	C & F SHEET METAL CORP		201 RICHARDS STREET BROOKLYN NY 11231	02/25/2009	02/24/2014
DOL	DOL		CANTISANI & ASSOCIATES LTD		442 FERRIS AVENUE WHITE PLAINS NY 10603	12/04/2009	05/04/2017
DOL	DOL		CANTISANI HOLDING LLC		220 FERRIS AVENUE WHITE PLAINS NY 10603	05/04/2012	05/04/2017
DOL	DOL	*****1143	CARMODY BUILDING CORP		442 ARMONK ROAD MOUNT KISCO NY 10549	05/04/2012	05/04/2017
DOL	DOL	*****3368	CARMODY CONCRETE CORP		442 ARMONK ROAD MOUNT KISCO NY 10549	12/04/2009	05/04/2017
DOL	DOL		CARMODY CONTRACTING CORP		220 FERRIS AVENUE WHITE PLAINS NY 10603	05/04/2012	05/04/2017
DOL	DOL	*****6215	CARMODY CONTRACTING INC		220 FERRIS AVENUE WHITE PLAINS NY 10603	05/04/2012	05/04/2017
DOL	DOL		CARMODY ENTERPRISES LTD		220 FERRIS AVENUE WHITE PLAINS NY 10603	12/04/2009	05/04/2017
DOL	DOL	*****3812	CARMODY INC		442 ARMONK ROAD MOUNT KISCO NY 10549	12/04/2009	05/04/2017
DOL	DOL	*****3812	CARMODY INDUSTRIES INC		442 FERRIS AVENUE WHITE PLAINS NY 10603	05/04/2012	05/04/2017
DOL	DOL		CARMODY MAINTENANCE CORP		105 KISCO AVENUE MOUNT KISCO NY 10549	05/04/2012	05/04/2017
DOL	DOL	*****0324	CARMODY MASONRY CORP		442 ARMONK ROAD MOUNT KISCO NY 10549	12/04/2009	05/04/2017
DOL	DOL	*****3812	CARMODY"2" INC		220 FERRIS AVENUE WHITE PLAINS NY 10603	12/04/2009	05/04/2017
DOL	DOL	*****9721	CATENARY CONSTRUCTION CORP		112 HUDSON AVENUE ROCHESTER NY 14605	02/14/2006	10/20/2014
DOL	DOL	*****1683	CATONE CONSTRUCTION COMPANY INC		294 ALPINE ROAD ROCHESTER NY 14423	03/09/2012	03/09/2017
DOL	DOL		CATONE ENTERPRISES INC		225 DAKOTA STREET ROCHESTER NY 14423	03/09/2012	03/09/2017
DOL	DOL	*****7924	CBI CONTRACTING INCORPORATED		2081 JACKSON AVENUE COPIAGUE NY 11726	06/03/2010	06/03/2015
DOL	DOL		CHARLES OKRASKI		67 WARD ROAD SALT POINT NY 12578	01/21/2011	01/21/2016
DOL	DOL		CHARLES RIBAUDO		513 ACORN ST - SUITE C DEER PARK NY 11729	05/27/2010	05/27/2015
DOL	DOL	*****1416	CHEROMINO CONTROL GROUP LLC		61 WILLET ST - SUITE 14 PASSAIC NJ 07055	12/03/2009	02/23/2017
DOL	DOL		CHESTER A BEDELL		1233 WALT WHITMAN ROAD MELVILLE NY 11747	04/29/2008	04/29/2013
DOL	DOL		CHRIS SAVOURY		44 THIELLS-MT IVY ROAD POMONA NY 10970	10/14/2011	10/14/2016
DOL	DOL		CHRIST R PAPAS		C/O TRAC CONSTRUCTION INC 9091 ERIE ROAD ANGOLA NY 14006	02/03/2011	02/03/2016

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DOL	DOL		CHRISTOF PREZBYL		2 TINA LANE HOPEWELL JUNCTION NY 12533	01/06/2012	01/06/2017
DOL	DOL		CITY GENERAL BUILDERS INC		131 MELROSE STREET BROOKLYN NY 11206	03/02/2010	03/02/2015
DOL	DOL	*****7086	CITY GENERAL IRON WORKS INC		131 MELROSE STREET BROOKLYN NY 11206	03/02/2010	03/02/2015
DOL	DOL	*****5329	CNY MECHANICAL ASSOCIATES INC		P O BOX 250 EAST SYRACUSE NY 13057	11/06/2008	11/06/2013
DOL	NYC	*****1768	COFIRE PAVING CORPORATION		120-30 28TH AVENUE FLUSHING NY 11354	01/14/2011	01/14/2016
DOL	DOL	*****8342	CONKLIN PORTFOLIO LLC		60 COLONIAL ROAD STILLWATER NY 12170	02/15/2011	02/15/2016
DOL	DOL	*****4175	CONSOLIDATED INDUSTRIAL SERVICES INC		2051 ROUTE 44/55 MODENA NY 12548	12/11/2012	01/28/2018
DOL	DOL	*****5740	CORTLAND GLASS COMPANY INC		336 TOMPKINS STREET CORTLAND NY 13045	10/21/2010	07/15/2016
DOL	NYC	*****8777	CROSSLAND ELECTRICAL SYSTEMS INC		846 EAST 52ND STREET BROOKLYN NY 11203	12/19/2008	12/29/2013
DOL	DOL	*****0115	CROW AND SUTTON ASSOCIATES INC		949 GROVESIDE ROAD BUSKIRK NY 12028	08/27/2008	08/27/2013
DOL	DOL	*****4266	CRYSTAL INTERIOR CONTRACTING INC		922 CRESCENT STREET BROOKLYN NY 11208	05/21/2008	05/21/2013
DOL	DOL	*****1804	CUSTOM GARDEN LANDSCAPING INC		283 NORTH MIDDLETOWN ROAD PEARL RIVER NY 10965	09/28/2009	09/28/2014
DOL	DOL	*****9453	D & D MASON CONTRACTORS INC		158-11 96TH STREET HOWARD BEACH NY 11414	06/25/2009	06/25/2014
DOL	DOL	*****0810	D & G PAINTING & DECORATING INC		53 LITTLE COLLABAR ROAD MONTGOMERY NY 12549	04/19/2012	04/19/2017
DOL	DOL		D JAMES SUTTON		949 GROVESIDE ROAD BUSKIRK NY 12028	08/27/2008	08/27/2013
DOL	DOL		DANIEL CELLUCCI ELECTRIC		17 SALISBURY STREET GRAFTON MA 01519	06/02/2010	06/02/2015
DOL	DOL	*****7129	DANIEL T CELLUCCI	DANIEL CELLUCCI ELECTRIC	17 SALISBURY STREET GRAFTON MA 01519	06/02/2010	06/02/2015
DOL	DOL		DARIN ANDERSON		134-25 166 PLACE #5E JAMAICA NY 11434	08/07/2008	08/07/2013
DOL	DOL		DARREN MAYDWELL		115 LEWIS STREET YONKERS NY 10703	05/12/2009	05/12/2014
DOL	DOL		DEAN ROBBINS III		212 OXFORD WAY SCHENECTADY NY 12309	12/11/2012	12/11/2017
DOL	DOL		DEANNA J REED		5900 MUD MILL RD-BOX 949 BREWERTON NY 13029	09/02/2008	09/02/2013
DOL	DOL	*****2311	DELCON CONSTRUCTION CORP		220 WHITE PLAINS ROAD TARRYTOWN NY 10591	08/27/2009	08/27/2014
DOL	DOL	*****3538	DELTA CONTRACTING PAINTING AND DESIGN INC		75 MCCULLOCH DRIVE DIX HILLS NY 11746	10/19/2010	10/19/2015
DOL	DOL		DEMETRIOS KOUTSOURAS		530 BEECH STREET NEW HYDE PARK NY 11040	07/02/2012	07/02/2017
DOL	DOL		DESMOND CHARLES		922 CRESCENT STREET BROOKLYN NY 11208	05/21/2008	05/21/2013
DOL	DOL		DIANE DEAVER		731 WARWICK TURNPIKE HEWITT NJ 07421	06/25/2012	12/11/2017
DOL	DOL		DIMITEIUS KASSIMIS		152-65 11TH AVENUE WHITESTONE NY 11357	05/22/2008	05/22/2013
DOL	DOL		DONALD NOWAK		10 GABY LANE CHEEKTOWAGA NY 14227	10/15/2009	10/15/2014
DOL	DOL		DORIS SKODA		C/O APCO CONTRACTING CORP 24 SOUTH MARYLAND AVENUEPORT WASHINGTON NY 11050	09/24/2012	09/24/2017
DOL	DOL	*****6148	DOT CONSTRUCTION OF NY INC		765 BRADY AVE - APT 631 BRONX NY 10462	05/21/2008	05/21/2013
DOL	DOL		DRAGOLJUB RADOJEVIC	61 WILLET ST - SUITE 14	PASSAIC NJ 07055	12/03/2009	07/09/2015
DOL	NYC	*****6176	E N E L ELECTRICAL CORP		1107 MCDONALD AVENUE BROOKLYN NY 11230	07/30/2010	07/30/2015
DOL	DOL	*****8011	EOCA CLEANING CONTRACTORS INC		P O BOX 21-1022 BROOKLYN NY 11221	05/16/2012	05/16/2017
DOL	NYC	*****8074	ECONOMY IRON WORKS INC		670 SOUTHERN BLVD BRONX NY 10455	06/14/2011	06/14/2016
DOL	DOL		EDWARD L GAUTHIER		C/O IMPERIAL MASONRY REST 141 ARGONNE DRIVEKENMORE NY 14217	10/03/2012	10/03/2017

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DOL	DOL		EDWARD SUBEH		1 CHELSEA COURT ATLANTIC CITY NJ 08401	10/06/2008	10/06/2013
DOL	NYC	*****6260	EL TREBOL SPECIAL CLEANING INC		95-26 76TH STREET OZONE PARK NY 11416	10/12/2011	10/12/2016
DOL	DOL	*****3554	ELITE BUILDING ENTERPRISES INC		34-08 PARKWAY DRIVE BALDWIN NY 11510	07/01/2008	07/21/2013
DOL	DOL	*****0780	EMES HEATING & PLUMBING CONTR		5 EMES LANE MONSEY NY 10952	01/20/2002	01/20/3002
DOL	DOL	*****6101	ENHANCED DATA COM INC		75 SHERBROOK ROAD NORTH BABYLON NY 11704	07/01/2010	07/01/2015
DOL	DOL		ERIKA BARNETT		253 BEACH BREEZE LANE UNIT BARVERNE NY 11692	02/05/2013	02/05/2018
DOL	DOL		ERROL L ALLEN		134-25 166 PLACE #5E JAMAICA NY 11434	08/07/2008	08/07/2013
DOL	DOL		ESCO INSTALLERS LLC		1 CHELSEA COURT ATLANTIC CITY NJ 08401	10/06/2008	10/06/2013
DOL	DOL		ESTEVEZ & FRAGA CONSTRUCTION CO INC		986 MADISON AVENUE PATERSON NJ 07501	01/03/2013	01/03/2018
DOL	DOL		ESTEVEZ & FRAGA INC		986 MADISON AVENUE PATERSON NJ 07501	01/03/2013	01/03/2018
DOL	DOL		EVELIO ELLEDIAS		114 PEARL STREET PORT CHESTER NY 10573	08/15/2012	08/15/2017
DOL	DOL	*****0329	FAULKS PLUMBING HEATING & AIR CONDITIONING INC		3 UPTON STREET HILTON NY 14468	06/10/2008	06/10/2013
DOL	DOL		FERNANDO GOMEZ		201 RICHARDS STREET BROOKLYN NY 11231	02/25/2009	02/25/2014
DOL	DOL	*****0768	FISHER CONCRETE INC		741 WELSH ROAD JAVA CENTER NY 14082	04/08/2009	04/08/2014
DOL	DOL	*****5867	FJM-FERRO INC		6820 14TH AVENUE BROOKLYN NY 11219	10/27/2011	10/27/2016
DOL	DOL		FMS		4 LEGHORN COURT NEW YORK NY 11746	11/28/2012	11/28/2017
DOL	DOL	*****8067	FORTH SPORT FLOORS INC		P O BOX 74 EAST GREENBUSH NY 12061	02/28/2012	10/01/2017
DOL	DOL	*****0115	FOXCROFT NURSERIES INC		949 GROVESIDE ROAD BUSKIRK NY 12028	08/27/2008	08/27/2013
DOL	DOL		FRANCIS (FRANK) OSCIER		3677 SENECA STREET WEST SENECA NY 14224	09/03/2008	09/03/2013
DOL	NYC		FRANK (FRANCIS) OSCIER		3677 SENECA STREET WEST SENECA NY 14224	09/03/2008	09/03/2013
DOL	NYC		FRANK ACOCCELLA		68 GAYLORD ROAD SCARSDALE NY 10583	02/10/2011	02/10/2016
DOL	NYC		FRANK BAKER		24 EDNA DRIVE SYOSSET NY 11791	05/14/2008	05/14/2013
DOL	DOL		FRANK J MERCANDO	C/O MERCANDO CONTRACTIN G CO INC	134 MURRAY AVENUE YONKERS NY 10704	11/22/2008	11/22/2013
DOL	DOL		FRANK J MERCANDO		134 MURRAY AVENUE YONKERS NY 10704	12/11/2009	12/11/2014
DOL	DOL		FRANK ORTIZ		75 SHERBROOK ROAD NORTH BABYLON NY 11704	07/01/2010	07/01/2015
DOL	DOL		FRED ABDO	ABDO TILE COMPANY AKA ABDO TILE CO	6179 EAST MOLLOY ROAD EAST SYRACUSE NY 13057	06/25/2010	07/02/2017
DOL	DOL	*****9202	G & M PAINTING ENTERPRISES INC		13915 VILLAGE LANE RIVERVIEW MI 48192	02/05/2010	02/05/2015
DOL	DOL	*****6826	GBE CONTRACTING CORPORATION		12-14 UTOPIA PARKWAY WHITESTONE NY 11357	02/10/2010	02/10/2015
DOL	NYC		GELSOMINA TASSONE		25 CLIFF STREET NEW ROCHELLE NY 10801	06/15/2010	06/15/2015
DOL	DOL		GEORGE A PATTI III		P O BOX 772 JAMESTOWN NY 14701	08/13/2010	08/13/2015
DOL	NYC		GEORGE LUCEY		150 KINGS STREET BROOKLYN NY 11231	01/19/1998	01/19/2998
DOL	DOL		GEORGE SHINAS		12-14 UTOPIA PARKWAY WHITESTONE NY 11357	02/10/2010	02/10/2015
DOL	DOL		GERALD A POLLOCK		336 TOMPKINS STREET CORTLAND NY 13045	06/29/2010	07/15/2016
DOL	DOL		GERALD F POLUCH JR		2085 BRIGHTON HENRIETTA TOWN LINE ROADROCHESTER NY 14623	11/04/2010	11/04/2015
DOL	AG		GERARD IPPOLITO		563 MUNCEY ROAD WEST ISLIP NY 11795	07/14/2008	07/14/2013
DOL	DOL	*****1075	GLOBAL TANK CONSTRUCTION LLC		P O BOX 1238 SALINA OK 74365	11/28/2012	11/28/2017

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DOL	DOL	*****4013	GR GRATES CONSTRUCTION CORPORATION		63 IRONWOOD ROAD UTICA NY 13520	06/14/2010	06/14/2015
DOL	DOL		GRATES MERCHANT NANNA INC		63 IRONWOOD ROAD UTICA NY 13520	06/14/2010	06/15/2015
DOL	DOL		GREGG G GRATES		63 IRONWOOD ROAD UTICA NY 13520	06/14/2010	06/14/2015
DOL	DOL		GRETCHEN SULLIVAN		P O BOX 130 CRETE IL 60417	11/10/2011	11/10/2016
DOL	DOL	*****9985	GROUND LEVEL CONSTRUCTION		10 GABY LANE CHEEKTOWAGA NY 14227	10/15/2009	10/15/2014
DOL	DOL	*****7735	GRYF CONSTRUCTION INC		394 SPOTSWOOD-ENGLISH RD MONROE NJ 08831	08/08/2011	08/08/2016
DOL	DOL		GUS PAPASTEFANOU		C/O D & G PAINTING & DECO 53 LITTLE COLLABAR ROADMONTGOMERY NY 12549	04/19/2012	04/19/2017
DOL	DOL		H.H. RAUH CONSTRUCTION, LLC		2930 RT. 394 ASHVILLE NY 14710	01/14/2011	01/14/2016
DOL	DOL	*****2499	H.H. RAUH CONTRACTING CO., LLC		2930 RT. 394 ASHVILLE NY 14710	01/14/2011	01/14/2016
DOL	DOL		H.H. RAUH PAVING, INC.		7 WEST 1ST ST. LAKEWOOD NY 14750	01/14/2011	01/14/2016
DOL	DOL	*****8904	HALLOCKS CONSTRUCTION CORP	P O BOX 278	YORKTOWN HEIGHTS NY 10598	12/01/2008	12/01/2013
DOL	DOL		HARALAMBOS KARAS		80-12 ASTORIA BOULEVARD EAST ELMHURST NY 11370	11/22/2008	10/22/2013
DOL	DOL	*****5405	HARD LINE CONTRACTING INC		89 EDISON AVENUE MOUNT VERNON NY 10550	10/28/2011	10/28/2016
DOL	DOL		HI-TECH CONTRACTING CORP		114 PEARL STREET PORT CHESTER NY 10573	08/15/2012	08/15/2017
DOL	DOL	*****4331	HIDDEN VALALEY EXCAVATING INC		225 SEYMOUR STREET FREDONIA NY 14063	02/08/2011	02/08/2016
DOL	DOL	*****9893	HOXIE'S PAINTING CO INC		2219 VALLEY DRIVE SYRACUSE NY 13207	12/04/2009	12/04/2014
DOL	DOL	*****6429	IDM ENTERPRISES INC		60 OUTWATER LANE GARFIELD NJ 07026	05/09/2009	05/09/2014
DOL	DOL	*****8426	IMPERIAL MASONRY RESTORATION INC		141 ARGONNE DRIVE KENMORE NY 14217	10/03/2012	10/03/2017
DOL	DOL	*****7561	INDUS GENERAL CONSTRUCTION		33-04 91ST STREET JACKSON HEIGHTS NY 11372	04/28/2010	04/28/2015
DOL	DOL	*****0488	INTERWORKS SYSTEMS, INC.		1233 WALT WHITMAN ROAD MELVILLE NY 11747	04/29/2008	04/29/2013
DOL	DA	*****1958	IRON HORSE ONE INC		10 ROSWELL AVENUE OCEANSIDE NY 11572	09/30/2010	09/30/2015
DOL	DOL		ISABEL FRAGA		C/O THREE FRIENDS CONSTR 986 MADISON AVENUEPATERSON NJ 07501	01/03/2013	01/03/2018
DOL	DOL		IVAN D MARKOVSKI		60 OUTWATER LANE GARFIELD NJ 07026	05/09/2009	05/09/2014
DOL	DOL		J & N LEASING AND BUILDING MATERIALS		154 EAST BOSTON POST ROAD MAMARONECK NY 10543	08/11/2009	08/11/2014
DOL	DOL	*****1584	J M TRI STATE TRUCKING INC		140 ARMSTRONG AVENUE SYRACUSE NY 13209	10/21/2009	10/21/2014
DOL	DOL	*****9368	J TECH CONSTRUCTION		PO BOX 64782 ROCHESTER NY 14624	09/24/2012	09/24/2017
DOL	DOL		J THE HANDYMAN			09/24/2012	09/24/2017
DOL	DOL		JAMES SICKAU		3090 SHIRLEY ROAD NORTH COLLINS NY 14111	04/19/2011	12/30/2016
DOL	DOL		JAMES WALSH		89 EDISON AVENUE MOUNT VERNON NY 10550	10/28/2011	10/28/2016
DOL	DOL		JAY PRESUTTI		C/O CONSOLIDATED INDUSTRI 2051 ROUTE 44/55MODENA NY 12548	01/28/2013	01/28/2018
DOL	DOL		JEFFREY A NANNA		502 WOODBURNE DRIVE UTICA NY 13502	06/14/2010	06/14/2015
DOL	DOL		JEFFREY ARTIERI		107 STEVENS STREET LOCKPORT NY 14094	11/04/2009	11/04/2014
DOL	DOL		JOHN BUONADONNA		283 NORTH MIDDLETOWN ROAD PEARL RIVER NY 10965	09/28/2009	09/28/2014
DOL	DOL		JOHN CATONE		C/O CATONE CONSTRUCTION 294 ALPINE ROADROCHESTER NY 14612	03/09/2012	03/09/2017

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DOL	NYC		JOHN DITURI		1107 MCDONALD AVENUE BROOKLYN NY 11230	07/30/2010	07/30/2015
DOL	NYC		JOHN FICARELLI		120-30 28TH AVENUE FLUSHING NY 11354	01/14/2011	01/14/2016
DOL	DOL		JOHN H LEE	JOHN LEE QUALITY PAVING	67 WILER ROAD HILTON NY 14468	01/28/2013	01/28/2018
DOL	DOL		JOHN JIULIANI		222 GAINSBORG AVENUE E WEST HARRISON NY 10604	05/10/2010	05/10/2015
DOL	DOL	*****1749	JOHN LEE QUALITY PAVING		67 WILER ROAD HILTON NY 14468	01/28/2013	01/28/2018
DOL	NYC		JOHN MARI JR		278 ROBINSON AVENUE NEW YORK NY 10312	04/06/2008	04/06/2013
DOL	DOL	*****2701	JOHN SMYKLA	AFFORDABLE PAINTING PLUS	367 GREEVES ROAD NEW HAMPTON NY 10958	10/01/2010	10/01/2015
DOL	DOL	*****9368	JORGE I DELEON	J TECH CONSTRUCTI ON	PO BOX 64782 ROCHESTER NY 14624	09/24/2012	09/24/2017
DOL	DOL		JORGE OUVINA		344 SOUNDVIEW LANE COLLEGE POINT NY 11356	11/22/2011	11/22/2016
DOL	DOL		JOSE DOS SANTOS JR		85-08 60TH AVENUE ELMHURST NY 11373	11/21/2008	11/21/2013
DOL	DOL		JOSE MONTAS		27 BUTLER PLACE YONKERS NY 10710	03/18/2011	03/15/2017
DOL	DOL		JOSEPH CASUCCI		6820 14TH AVENUE BROOKLYN NY 11219	10/27/2011	10/27/2016
DOL	DOL		JOSEPH MONETTE		C/O JOHN MONETTE 140 ARMSTRONG AVENUESYRACUSE NY 13209	10/21/2009	10/21/2014
DOL	DOL	*****1763	JR RESTORATION & ROOFING INC		152-65 11TH AVENUE WHITESTONE NY 11357	05/22/2008	05/22/2013
DOL	DOL		JULIUS AND GITA BEHREND		5 EMES LANE MONSEY NY 10952	11/20/2002	11/20/3002
DOL	DOL		K NELSON SACKOOR		16 JOY DRIVE NEW HYDE PARK NY 11040	01/05/2010	01/05/2015
DOL	NYC		KAMIL OZTURK		3715 KINGS HWY - STE 1D BROOKLYN NY 11234	06/30/2010	06/30/2015
DOL	DOL		KEMPTON MCINTOSH		8531 AVENUE B BROOKLYN NY 11236	12/16/2008	12/16/2013
DOL	DOL		KEN DEAVER		731 WARWICK TURNPIKE HEWITT NJ 07421	06/25/2012	12/11/2017
DOL	DOL	*****5941	KINGSVIEW ENTERPRISES INC		7 W FIRST STREET P O BOX 2LAKEWOOD NY 14750	01/14/2011	01/14/2016
DOL	DOL		KRZYSZTOF PRXYBYL		2 TINA LANE HOPEWELL JUNCTION NY 12533	01/06/2012	01/06/2017
DOL	DOL	*****6033	KUSNIR CONSTRUCTION		2677 ANAWALK ROAD KATONAH NY 10536	08/03/2012	08/03/2017
DOL	DOL	*****0526	LAGUARDIA CONSTRUCTION CORP		47-40 48TH STREET WOODSIDE NY 11377	07/01/2011	07/01/2016
DOL	NYC	*****8816	LAKE CONSTRUCTION AND DEVELOPMENT CORPORATION		150 KINGS STREET BROOKLYN NY 11231	08/19/1998	08/19/2998
DOL	DOL	*****9628	LANCET ARCH INC		112 HUDSON AVENUE ROCHESTER NY 14605	02/14/2006	10/19/2014
DOL	DOL		LANCET SPECIALTY CONTRACTING CORP		C/O CATENARY CONSTRUCTION 112 HUDSON AVENUEROCHESTER NY 14605	10/19/2009	10/19/2014
DOL	DOL		LARRY DOMINGUEZ		114 PEARL STREET PORT CHESTER NY 10573	08/15/2012	08/15/2017
DOL	DOL		LARRY FRANGOS		5752 WEST WEBB ROAD YOUNGSTOWN OH 44515	05/21/2008	05/21/2013
DOL	DOL		LAURA A. GAUTHIER		C/O IMPERIAL MASONRY REST 141 ARGONNE DRIVEKENMORE NY 14217	10/03/2012	10/03/2017
DOL	DOL	*****0597	LEED INDUSTRIES CORP	HI-TECH CONTRACTIN G CORP	114 PEART STREET PORT CHESTER NY 10573	08/15/2012	08/15/2017
DOL	DOL	*****7907	LEEMA EXCAVATING INC		140 ARMSTRONG AVENUE SYRACUSE NY 13209	10/21/2009	10/21/2014
DOL	AG	*****5102	LIBERTY TREE SERVICE, INC.		563 MUNCEY ROAD WEST ISLIP NY 11795	07/14/2008	07/14/2013
DOL	DOL	*****8453	LINPHILL ELECTRICAL CONTRACTORS INC		523 SOUTH 10TH AVENUE MOUNT VERNON NY 10553	01/07/2011	01/07/2016

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DOL	DOL		LINVAL BROWN		523 SOUTH 10TH AVENUE MOUNT VERNON NY 10553	01/07/2011	01/07/2016
DOL	DOL	*****5171	LUVIN CONSTRUCTION CORP		P O BOX 357 CARLE PLACE NY 11514	03/15/2010	03/15/2015
DOL	DOL		MANUEL ESTEVES		55 OLD TURNPIKE ROAD SUITE 612NANUET NY 10954	02/04/2011	02/04/2016
DOL	NYC		MANUEL P TOBIO		150 KINGS STREET BROOKLYN NY 14444	08/19/1998	08/19/2998
DOL	NYC		MANUEL TOBIO		150 KINGS STREET BROOKLYN NY 11231	08/19/1998	08/19/2998
DOL	DOL		MAR CONTRACTING CORP		620 COMMERCE STREET THORNWOOD NY 10594	09/24/2012	09/24/2017
DOL	DOL		MARGARET FORTH		P O BOX 74 EAST GREENBUSH NY 12061	02/28/2012	10/01/2017
DOL	DOL		MARIA ESTEVES AKA MARIA MARTINS		C/O THREE FRIENDS CONSTR 986 MADISON AVENUEPATERSON NJ 07501	01/03/2013	01/03/2018
DOL	DOL		MARIA MARTINS AKA MARIA ESTEVES		C/O THREE FRIENDS CONSTR 986 MADISON AVENUEPATERSON NJ 07501	01/03/2013	01/03/2018
DOL	DOL		MARIO LUIS		31 DURANT AVENUE BETHEL CT 06801	07/02/2012	07/02/2017
DOL	DOL		MARIO R ECHEVERRIA JR		588 MEACHAM AVE-SUITE 103 ELMONT NY 11003	08/24/2010	08/24/2015
DOL	DOL		MARK LINDSLEY		355 COUNTY ROUTE 8 FULTON NY 13069	08/08/2009	08/14/2014
DOL	NYC	*****4314	MASCON RESTORATION INC		129-06 18TH AVENUE COLLEGE POINT NY 11356	02/09/2012	02/09/2017
DOL	NYC	*****4314	MASCON RESTORATION LLC		129-06 18TH AVENUE COLLEGE POINT NY 11356	02/09/2012	02/09/2017
DOL	DOL	*****0845	MASONRY CONSTRUCTION INC		442 ARMONK ROAD MOUNT KISCO NY 10549	12/04/2009	05/04/2017
DOL	DOL	*****3333	MASONRY INDUSTRIES INC		442 ARMONK ROAD MOUNT KISCO NY 10549	12/04/2009	05/04/2017
DOL	DOL	*****6826	MATSOS CONTRACTING CORPORATION		12-14 UTOPIA PARKWAY WHITESTONE NY 11357	02/10/2010	02/10/2015
DOL	AG	*****9970	MAY CONSTRUCTION CO INC		700 SUMMER STREET STAMFORD CT	11/24/2009	11/24/2014
DOL	DOL	*****9857	MBL CONTRACTING CORPORATION		2620 ST RAYMOND AVENUE BRONX NY 10461	08/30/2011	08/30/2016
DOL	DOL		MCI CONSTRUCTION INC		975 OLD MEDFORD AVENUE FARMINGDALE NY 11738	08/24/2009	08/24/2014
DOL	DOL	*****9028	MCINTOSH INTERIORS LLC		8531 AVENUE B BROOKLYN NY 11236	02/05/2013	02/05/2018
DOL	DOL	*****5936	MCSI ADVANCED AV SOLUTIONS LLC		2085 BRIGHTON HENRIETTA TOWN LINE ROADROCHESTER NY 14623	11/04/2010	11/04/2015
DOL	DOL	*****4259	MERCANDO CONTRACTING CO INC		134 MURRAY AVENUE YONKERS NY 10704	12/11/2009	12/11/2014
DOL	DOL	*****0327	MERCANDO INDUSTRIES LLC		134 MURRAY AVENUE YONKERS NY 10704	12/11/2009	12/11/2014
DOL	DOL	*****9198	MICHAEL CZECHOWICZ	OCTAGON CO	37-11 35TH AVENUE-2ND FL LONG ISLAND CITY NY 11101	01/08/2013	01/08/2018
DOL	DOL	*****6033	MICHAEL KUSNIR	KUSNIR CONSTRUCTION	2677 ANAWALK ROAD KATONAH NY 10536	08/03/2012	08/03/2017
DOL	DOL		MICHAEL MARGOLIN		4 LEGHORN COURT NEW YORK NY 11746	11/28/2012	11/28/2017
DOL	DOL	*****2635	MIDLAND CONSTRUCTION OF CEDAR LAKE INC		13216 CALUMET AVENUE CEDAR LAKE IL 46303	11/10/2011	11/10/2016
DOL	DOL	*****5517	MILLENNIUM PAINTING INC		67 WARD ROAD SALT POINT NY 12578	01/21/2011	01/21/2016
DOL	NYC		MOHAMMAD SELIM		73-12 35TH AVE - APT F63 JACKSON HEIGHTS NY 11372	03/04/2010	03/04/2015
DOL	DA		MOHAMMED SALEEM		768 LYDIG AVENUE BRONX NY 10462	08/18/2009	05/25/2015
DOL	NYC	*****2690	MONDOL CONSTRUCTION INC		11-27 30TH DRIVE LONG ISLAND CITY NY 11102	05/25/2011	05/25/2016
DOL	DOL		MORTON LEVITIN		3506 BAYFIELD BOULEVARD OCEANSIDE NY 11572	08/30/2011	08/30/2016
DOL	DOL	*****2737	MOUNTAIN'S AIR INC		2471 OCEAN AVENUE- STE 7A BROOKLYN NY 11229	09/24/2012	09/24/2017
DOL	NYC		MUHAMMAD ZULFIQAR		129-06 18TH AVENUE COLLEGE POINT NY 11356	02/09/2012	02/09/2017
DOL	DOL	*****2357	MUNICIPAL MILLING & MIX-IN-PLACE		9091 ERIE ROAD ANGOLA NY 14006	02/03/2011	02/03/2016

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DOL	DOL		MURRAY FORTH		P O BOX 74 EAST GREENBUSH NY 12061	02/28/2012	10/01/2017
DOL	DA	*****9642	MUTUAL OF AMERICAL GENERAL CONSTRUCTION & MANAGEMENT CORP		768 LYDIG AVENUE BRONX NY 10462	08/18/2009	05/25/2015
DOL	DOL		MUZAFFAR HUSSAIN		C/O ABSOLUTE GENERAL CONT 1129 AVENUE UBROOKLYN NY 11229	01/28/2013	01/28/2018
DOL	DOL		N PICCO AND SONS CONTRACTING INC		154 EAST BOSTON POST ROAD MAMARONECK NY 10543	08/11/2009	08/11/2014
DOL	DOL	*****4133	NASDA ELECTRICAL ENTERPRISES INC		134-25 166 PLACE - #5E JAMAICA NY 11434	08/07/2008	08/07/2013
DOL	DOL	*****9445	NASDA ENTERPRISES INC		134-25 166 PLACE #5E JAMAICA NY 11434	08/07/2008	08/07/2013
DOL	DOL		NAT PICCO		154 EAST BOSTON POST ROAD MAMARONECK NY 10543	08/22/2009	08/22/2014
DOL	DA	*****6988	NEW YORK INSULATION INC		58-48 59TH STREET MASPETH NY 11378	05/16/2012	05/16/2017
DOL	DOL		NICOLE SPELLMAN		2081 JACKSON AVENUE COPIAGUE NY 11726	06/03/2010	06/03/2015
DOL	DOL		NIKOLAS PSAREAS		656 N WELLWOOD AVE/STE C LINDENHURST NY 11757	09/01/2011	09/01/2016
DOL	DOL	*****7041	NYCOM SERVICES CORP		80-12 ASTORIA BOULEVARD EAST ELMHURST NY 11370	11/22/2008	11/22/2013
DOL	DOL	*****0797	O GLOBO CONSTRUCTION CORP		85-06 60TH AVENUE ELMHURST NY 11373	11/21/2008	11/21/2013
DOL	DOL	*****9198	OCTAGON CO		37-11 35TH AVENUE-2ND FL LONG ISLAND CITY NY 11101	01/08/2013	01/08/2018
DOL	DOL		OKBY ELSAYED		1541 EAST 56TH STREET BROOKLYN NY 11234	05/04/2012	05/04/2017
DOL	NYC		OLIVER HOLGUIN		95-26 76TH STREET OZONE PARK NY 11416	10/12/2011	10/12/2016
DOL	NYC	*****3855	OT & T INC		36-28 23RD STREET LONG ISLAND CITY NY 11106	01/15/2008	05/14/2013
DOL	DOL	*****5226	PASCARELLA & SONS		459 EVERDALE AVENUE WEST ISLIP NY 11759	01/10/2010	01/10/2015
DOL	DOL		PATRICK BURNS		19 E. CAYUGA STREET OSWEGO NY 13126	05/15/2008	05/15/2013
DOL	DOL		PATRICK SHAUGHNESSY		88 REDWOOD DRIVE ROCHESTER NY 14617	05/16/2008	05/16/2013
DOL	DOL		PEDRO RINCON		131 MELROSE STREET BROOKLYN NY 11206	03/02/2010	03/02/2015
DOL	DOL	*****9569	PERFORM CONCRETE INC		31 DURANT AVENUE BETHEL CT 06801	07/02/2012	07/02/2017
DOL	DOL		PETER J LANDI		249 MAIN STREET EASTCHESTER NY 10709	10/05/2009	10/05/2014
DOL	DOL	*****7229	PETER J LANDI INC		249 MAIN STREET EASTCHESTER NY 10709	10/05/2009	10/05/2014
DOL	DOL	*****1136	PHOENIX ELECTRICIANS COMPANY INC		540 BROADWAY P O BOX 22222ALBANY NY 12201	03/09/2010	03/09/2015
DOL	DOL	*****5419	PINE VALLEY LANDSCAPE CORP		RR 1, BOX 285-B BUSKIRK NY 12028	08/27/2008	08/27/2013
DOL	DOL		PRECISION DEVELOPMENT CORP		115 LEWIS STREET YONKERS NY 10703	05/12/2009	05/12/2014
DOL	DOL	*****7914	PRECISION SITE DEVELOPMENT INC		89 EDISON AVENUE MOUNT VERNON NY 10550	10/28/2011	10/28/2016
DOL	DOL	*****9359	PRECISION STEEL ERECTORS INC		P O BOX 949 BREWERTON NY 13029	09/02/2008	09/02/2013
DOL	DOL	*****6895	PROLINE CONCRETE OF WNY INC		3090 SHIRLEY ROAD NORTH COLLINS NY 14111	04/19/2011	12/30/2016
DOL	DOL	*****2326	PUTMAN CONSTRUCTION COMPANY OF WESTERN NY		29 PHYLLIS AVENUE BUFFALO NY 14215	09/03/2008	09/03/2013
DOL	DOL		RAMON BONILLA		938 E 232ND STREET #2 BRONX NY 10466	05/25/2010	05/25/2015
DOL	DOL	*****7294	REDWOOD FLOORING, INC.		88 REDWOOD DRIVE ROCHESTER NY 14617	05/16/2008	05/16/2013
DOL	NYC	*****6978	RISINGTECH INC		243-03 137TH AVENUE ROSEDALE NY 11422	03/25/2010	03/25/2015
DOL	DOL		ROBBYE BISSEsar		89-51 SPRINGFIELD BLVD QUEENS VILLAGE NY 11427	01/11/2003	01/11/3003
DOL	DOL		ROBERT DIMARSICO		1233 WALT WHITMAN ROAD MELVILLE NY 11747	04/29/2008	04/29/2013

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DOL	NYC		ROBERT FICARELLI		120-30 28TH AVENUE FLUSHING NY 11354	01/14/2011	01/14/2016
DOL	DOL	*****1721	ROBERTS CONSTRUCTION OF UPSTATE NEW YORK INC		5 SANGER AVENUE NEW HARTFORD NY 13413	01/28/2009	01/28/2014
DOL	DOL		ROCCO ESPOSITO		C/O ROCMAR CONTRACTING CO 620 COMMERCE STREETTHORNWOOD NY 10594	09/24/2012	09/24/2017
DOL	DOL		ROCMAR CONSTRUCTION CORP		620 COMMERCE STREET THORNWOOD NY 10594	09/24/2012	09/24/2017
DOL	DOL	*****7083	ROCMAR CONTRACTING CORP		620 COMMERCE STREET THORNWOOD NY 10594	09/24/2012	09/24/2017
DOL	DOL	*****9025	ROJO MECHANICAL LLC		938 E 232ND STREET #2 BRONX NY 10466	05/25/2010	05/25/2015
DOL	DOL		RONALD R SAVOY	C/O CNY MECHANICAL ASSOCIATES INC	P O BOX 250 EAST SYRACUSE NY 13057	11/06/2008	11/06/2013
DOL	DOL	*****5905	ROSE PAINTING CORP		222 GAINSBORG AVENUE EAST WEST HARRISON NY 10604	05/10/2010	05/10/2015
DOL	DOL		ROSEANNE CANTISANI		11 TATAMUCK ROAD POUND RIDGE NY 10576	05/04/2012	05/04/2017
DOL	NYC		ROSS J HOLLAND		120-30 28TH AVENUE FLUSHING NY 11354	01/14/2011	01/14/2016
DOL	DOL		RUTH H SUTTON		939 GROVESIDE ROAD BUSKIRK NY 12028	08/27/2008	08/27/2013
DOL	DOL		S & M CONTRACTING LLC		30 MIDLAND AVENUE WALLINGTON NJ 07057	11/05/2010	11/05/2015
DOL	DOL	*****2585	S B WATERPROOFING INC		SUITE #3R 2167 CONEY ISLAND AVENUEBROOKLYN NY 11223	11/04/2009	11/04/2014
DOL	DOL	*****9066	SAMAR PAINTING & DECORATING INC		137 E MAIN STREET ELMSFORD NY 10523	12/01/2008	12/01/2013
DOL	DOL	*****4923	SCHENLEY CONSTRUCTION INC		731 WARWICK TURNPIKE HEWITT NJ 07421	06/25/2012	12/11/2017
DOL	DOL		SCOTT LEONARD	GLOBAL TANK CONSTRUCTI ON LLC	P O BOX 1238 SALINA OK 74365	11/28/2012	11/28/2017
DOL	NYC	*****4020	SERVI-TEK ELEVATOR CORP		2546 EAST TREMONT AVENUE BRONX NY 10461	06/04/2009	06/04/2014
DOL	DOL	*****3540	SEVEN STAR ELECTRICAL CONTRACTING CORP		23-24 STEINWAY STREET ASTORIA NY 11105	06/27/2011	06/27/2016
DOL	DOL		SEVEN STAR ELECTRICAL INC		C/O THEONI ATHANASIADIS 1023 COMMACK ROADDIX HILLS NY 11746	06/27/2011	06/27/2016
DOL	NYC		SHAFIQUIL ISLAM		11-27 30TH DRIVE LONG ISLAND CITY NY 11102	05/25/2011	05/25/2016
DOL	NYC		SHAHZAD ALAM		21107 28TH AVE BAYSIDE NY 11360	07/02/2012	07/02/2017
DOL	DOL		SHAIKF YOUSUF		C/O INDUS GENERAL CONST 33-04 91ST STREETJACKSON HEIGHTS NY 11372	04/28/2010	04/28/2015
DOL	DOL	*****0256	SIERRA ERECTORS INC		79 MADISON AVE - FL 17 NEW YORK NY 10016	04/16/2009	04/16/2014
DOL	DOL	*****0415	SIGNAL CONSTRUCTION LLC		199 GRIDER STREET BUFFALO NY 14215	11/14/2006	02/25/2015
DOL	DOL	*****8469	SIGNATURE PAVING AND SEALCOATING		P O BOX 772 JAMESTOWN NY 14701	08/13/2010	08/13/2015
DOL	DOL	*****8469	SIGNATURE SEALCOATING AND STRIPING SERVICE		345 LIVINGSTON AVENUE P O BOX 772JAMESTOWN NY 14702	04/04/2007	08/13/2015
DOL	DOL	*****0667	SNEEM CONSTRUCTION INC		43-22 42ND STREET SUNNYSIDE NY 11104	07/01/2011	07/01/2016
DOL	DOL		SPASOJE DOBRIC		61 WILLET STREET - SUITE PASSAIC NJ 07055	07/09/2010	02/23/2017
DOL	DOL	*****3539	SPOTLESS CONTRACTING	IMPACT INDUSTRIAL SERVICES INC	44 THIELLS-MT IVY ROAD POMONA NY 10970	10/14/2011	10/14/2016
DOL	DOL	*****3496	STAR INTERNATIONAL INC		89-51 SPRINGFIELD BLVD QUEENS VILLAGE NY 11427	08/11/2003	08/11/3003
DOL	DOL		STEFANIE MCKENNA		30 MIDLAND AVENUE WALLINGTON NJ 07057	11/05/2010	11/05/2015
DOL	DOL		STEPHEN BALZER		34-08 PARKWAY DRIVE BALDWIN NY 11510	07/01/2008	07/01/2013
DOL	DOL		STEVEN CONKLIN		60 COLONIAL ROAD STILLWATER NY 12170	02/15/2011	02/15/2016

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DOL	DOL	*****4081	STS CONSTRUCTION OF WNY		893 EAGLE STREET BUFFALO NY 14210	06/09/2009	06/09/2014
DOL	DOL		STUART CHAITIN		634 ROUTE 303 BLAUDET NY 10913	07/26/2012	07/26/2017
DOL	DOL	*****3210	SUPER SWEEP	FMS	4 LEGHORN COURT NEW YORK NY 11746	11/28/2012	11/28/2017
DOL	DOL	*****4293	THE J OUVINA GROUP LLC		344 SOUNDVIEW LANE COLLEGE POINT NY 11356	11/22/2011	11/22/2016
DOL	DOL	*****2070	THE UNIVERSAL GROUP OF NEW YORK INC		212 OXFORD WAY SCHENECTADY NY 12309	12/11/2012	12/11/2017
DOL	DOL		THEODORE F FAULKES		18 FIREWEED TRAIL HILTON NY 14468	06/10/2008	06/10/2013
DOL	DOL		THEONI ATHANASIADIS		C/O SEVEN STAR ELECTRICAL 23-24 STEINWAY STREETASTORIA NY 11105	06/27/2011	06/27/2016
DOL	DOL		THOMAS ASCHMONEIT		79 MADISON AVENUE - FL 17 NEW YORK NY 10016	04/16/2009	04/16/2014
DOL	DOL		THOMAS DEMARTINO		158-11 96TH STREET HOWARD BEACH NY 11414	06/25/2009	06/25/2014
DOL	DOL		THOMAS TERRANOVA		13 NEW ROAD/SUITE 1 NEWBURGH NY 12550	11/15/2010	11/15/2015
DOL	DOL	*****2734	THREE FRIENDS CONSTRUCTION CORP		986 MADISON AVENUE PATERSON NJ 07501	01/03/2013	01/03/2018
DOL	NYC		TIMOTHY O'SULLIVAN		C/O SNEEM CONSTRUCTION 4322 42ND STREETSSUNNYSIDE NY 11104	07/01/2011	07/01/2016
DOL	DOL		TIMOTHY P SUCH		893 EAGLE STREET BUFFALO NY 14210	06/09/2009	06/09/2014
DOL	DOL		TNT DEMOLITION AND ENVIRONMENTAL INC		355 COUNTY ROUTE 8 FULTON NY 13069	08/08/2009	08/19/2014
DOL	DOL	*****3315	TOTAL DOOR SUPPLY & INSTALLATION INC		16 JOY DRIVE NEW HYDE PARK NY 11040	01/05/2010	01/05/2015
DOL	DOL	*****3315	TOTAL DOOR SUPPLY & INSTALLATION INC		16 JOY DRIVE NEW HYDE PARK NY 11040	01/05/2010	01/05/2015
DOL	DOL	*****8176	TOURO CONTRACTING CORP		1541 EAST 56TH STREET BROOKLYN NY 11234	05/04/2012	05/04/2017
DOL	DOL	*****2357	TRAC CONSTRUCTION INC	MUNICIPAL MILLING & MIX -IN- PLACE	9091 ERIE ROAD ANGOLA NY 14006	02/03/2011	02/03/2016
DOL	DOL		TRI STATE TRUCKING INC		140 ARMSTRONG AVENUE SYRACUSE NY 13209	10/21/2009	10/21/2014
DOL	DOL	*****5213	TRIAD PAINTING CO INC		656 N WELLWOOD AVE/STE C LINDENHURST NY 11757	09/01/2011	09/01/2016
DOL	DOL	*****4294	TWT CONSTRUCTION COMPANY INC		13 NEW ROAD/SUITE 1 NEWBURGH NY 12550	11/15/2010	11/15/2015
DOL	DOL		ULIANO AND SONS INC		22 GRIFFEN COURT MILLER PLACE NY 11746	10/26/2010	10/26/2015
DOL	DOL	*****0854	VANESSA CONSTRUCTION INC		588 MEACHAM AVE/STE 103 ELMONT NY 11003	08/24/2010	08/24/2015
DOL	DOL	*****3270	VEZANDIO CONTRACTING CORP		530 BEECH STREET NEW HYDE PARK NY 11040	07/02/2012	07/02/2017
DOL	DOL		VIRGINIA L CAPONE		137 E MAIN STREET ELMSFORD NY 10523	12/01/2008	12/01/2013
DOL	NYC	*****9936	VISHAL CONSTRUCTION INC		73-12 35TH AVE - APT F63 JACKSON HEIGHTS NY 11272	03/04/2010	03/04/2015
DOL	DOL	*****0329	WET PAINT CO. OF OSWEGO, INC		19 E. CAYUGA STREET OSWEGO NY 13126	05/15/2008	05/15/2013
DOL	DOL	*****7617	WHITE PLAINS CARPENTRY CORP		P O BOX 309 WHITE PLAINS NY 10603	12/04/2009	05/04/2017
DOL	DOL		WILLIAM PUTNAM		50 RIDGE ROAD BUFFALO NY 14215	09/03/2008	09/03/2013
DOL	DOL		WILLIAM SCRIVENS		30 MIDLAND AVENUE WALLINGTON NJ 07057	11/05/2010	11/05/2015
DOL	DOL		WILLIAM W FARMER JR		112 HUDSON AVENUE ROCHESTER NY 14605	10/19/2009	10/19/2014
DOL	NYC	*****5498	XAVIER CONTRACTING LLC		68 GAYLORD ROAD SCARSDALE NY 10583	02/10/2011	02/10/2016
DOL	AG		YULY ARONSON		700 SUMMER STREET STAMFORD CT	11/24/2009	11/24/2014
DOL	DOL		YURIY IVANIN		C/O MOUNTAIN'S AIR INC 2471 OCEAN AVENUE-STE 7ABROOKLYN NY 11229	09/24/2012	09/24/2017

OFFICE
Pittsburgh, PA

DRAWING
NUMBER

134685-22D8

VERIFY SCALE
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Plot Date/Time: Apr 25, 2013 - 9:58am
Plotted By: greg.jones



SITE LOCATION MAP

NOT TO SCALE

INDEX OF DRAWINGS

SHEET REFERENCE NUMBER	DESCRIPTION
T-1	TITLE SHEET
C-1	EXISTING SITE CONDITIONS
C-2	EXISTING SECTIONS
C-3	SITE WORK PLAN
C-4	EXCAVATION AND DEWATERING PLAN
C-5	EXCAVATION SECTIONS
C-6	FINAL GRADING PLAN
C-7	FINAL SECTIONS
C-8	MISCELLANEOUS DETAILS - SHEET 1 OF 2
C-9	MISCELLANEOUS DETAILS - SHEET 2 OF 2
C-10	CONFIRMATORY SAMPLING PLAN
C-11	WEST AND EAST SAMPLING PROFILE
C-12	NORTH AND SOUTH SAMPLING PROFILE
ES-1	EROSION AND SEDIMENT CONTROL PLAN
ES-2	EROSION AND SEDIMENT CONTROL DETAILS
P-1	PROCESS FLOW DIAGRAM - WATER TREATMENT SYSTEM



SITE VICINITY MAP

SCALE
0 200 400 FEET

INTERIM REMEDIAL MEASURE WILLOWBROOK POND CLOSURE

ALTECH SPECIALTY STEEL
CONTRACT NO. D0008535
DUNKIRK, NEW YORK
APRIL 2013

PREPARED FOR
**NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL
CONSERVATION**

REV	DESCRIPTION / ISSUE	DATE	APPROVED
A	ISSUED FOR DEC DRAFT REVIEW	7/24/12	M.J.S.
B	ISSUED DRAFT FINAL CONTRACT DRAWINGS	10/30/12	M.J.S.
C	ISSUED FINAL CONTRACT DRAWINGS	4/19/13	M.J.S.

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DESIGNED BY: <i>M. Donegan</i>	NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION		
DRAWN BY: <i>A. Smith</i>	TITLE SHEET ALTECH SPECIALTY STEEL CONTRACT NO. D008535 DUNKIRK, NEW YORK		
CHECKED BY: <i>M. Sausville</i>	APPROVED BY: <i>M. Sausville</i>	DATE: 4/19/13	SHEET NO. T-1
SCALE: AS SHOWN	DRAWING NO. 134685-22D8		

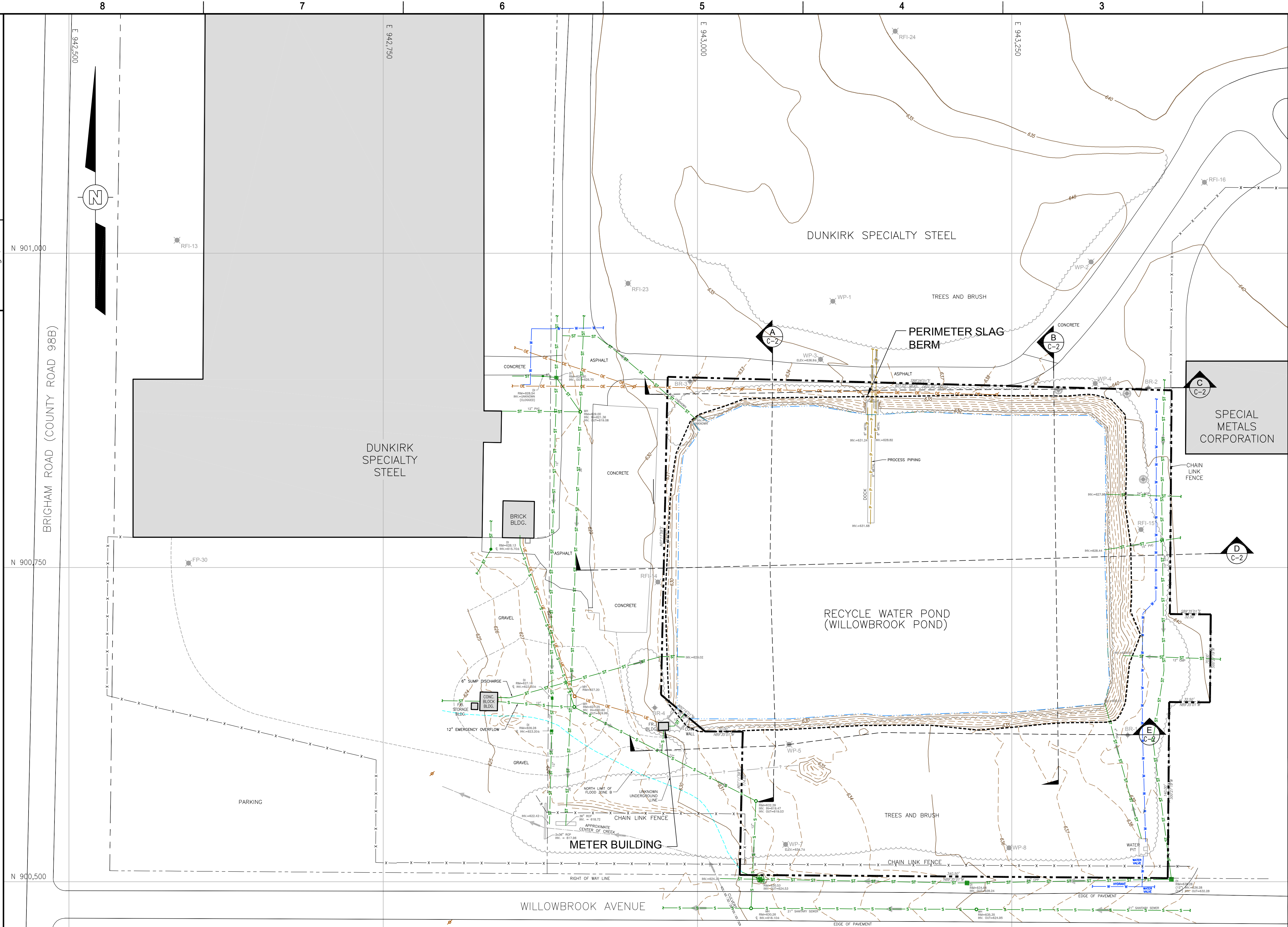
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REFERENCES:

- EXISTING SITE CONDITIONS TAKEN FROM DRAWING PREPARED BY RAZAK ASSOCIATES, PENFIELD, NEW YORK, 14526, DATED 8-11-2011.
- COORDINATE SYTEM SHOWN IS BASED ON STATE PLANE NAD 1983, NEW YORK WEST.

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OFFICE
Pittsburgh, PA
DRAWING NUMBER
134685-22D8



GENERAL LEGEND:

- MONITORING WELL
- BEDROCK MONITORING WELL
- WELL POINT
- BUILDING/STRUCTURE
- PROPERTY LINE
- SITE BOUNDARY
- CONTOUR (1-FOOT)
- FENCE LINE
- BRUSH/TREE LINE
- UTILITY POLE
- SANITARY MANHOLE
- CATCH BASIN
- SANITARY SEWER LINE
- STORM SEWER LINE
- OVERHEAD ELECTRIC
- UNDERGROUND ELECTRIC
- WATER LINE
- PROCESS PIPING

SCALE
0 40 80 120 FEET

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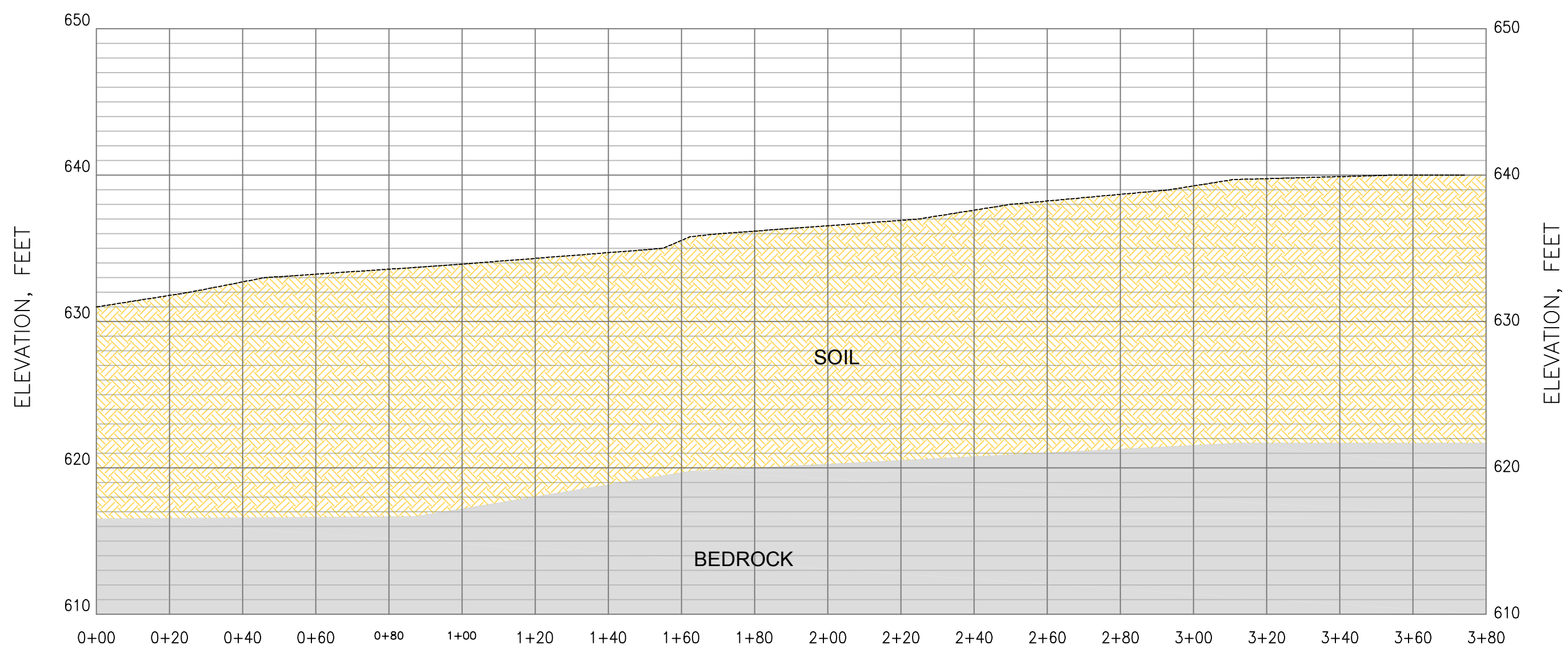
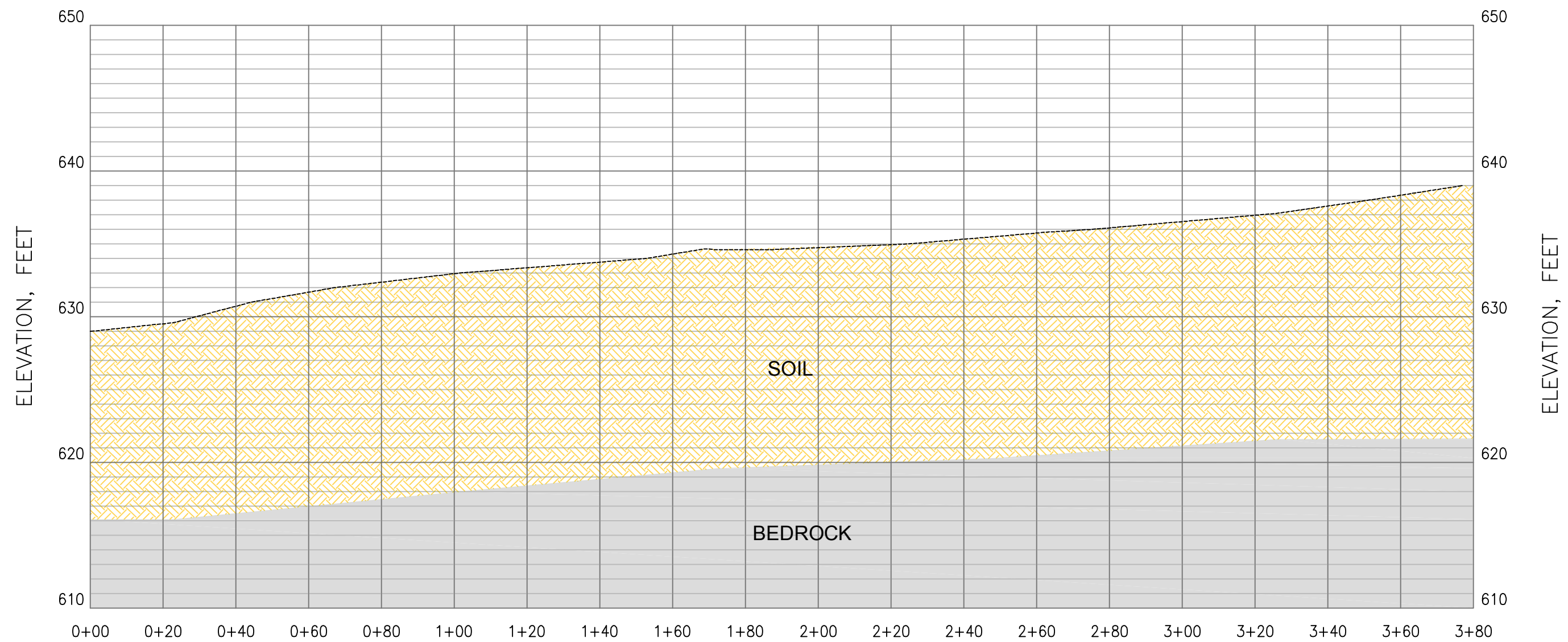
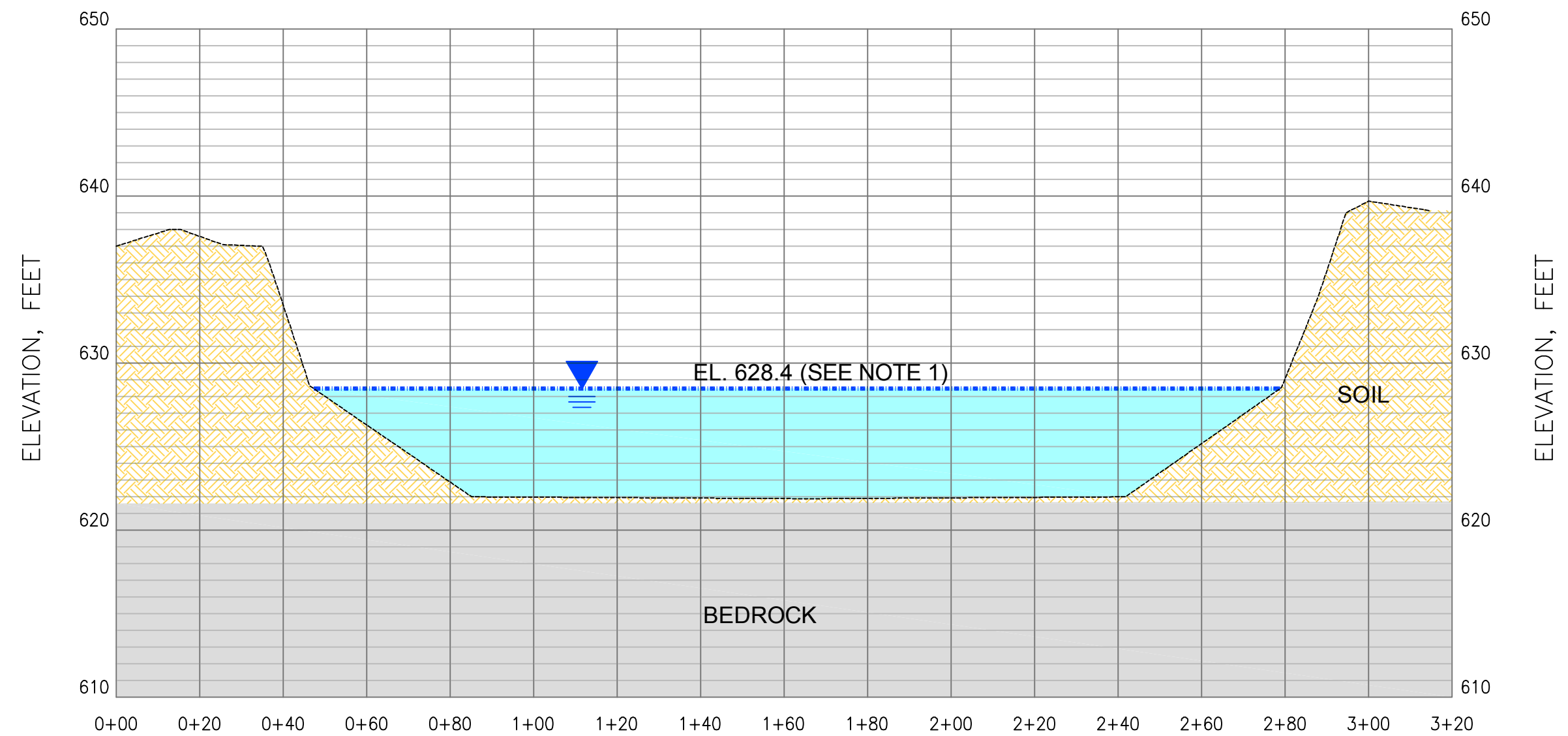
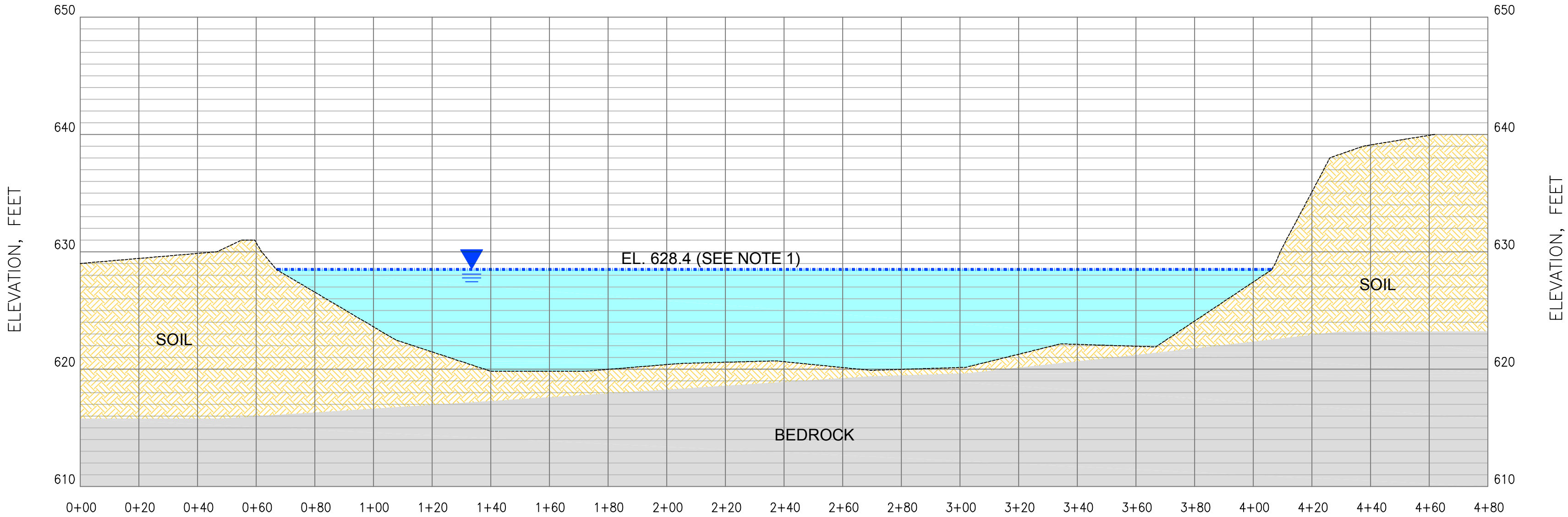
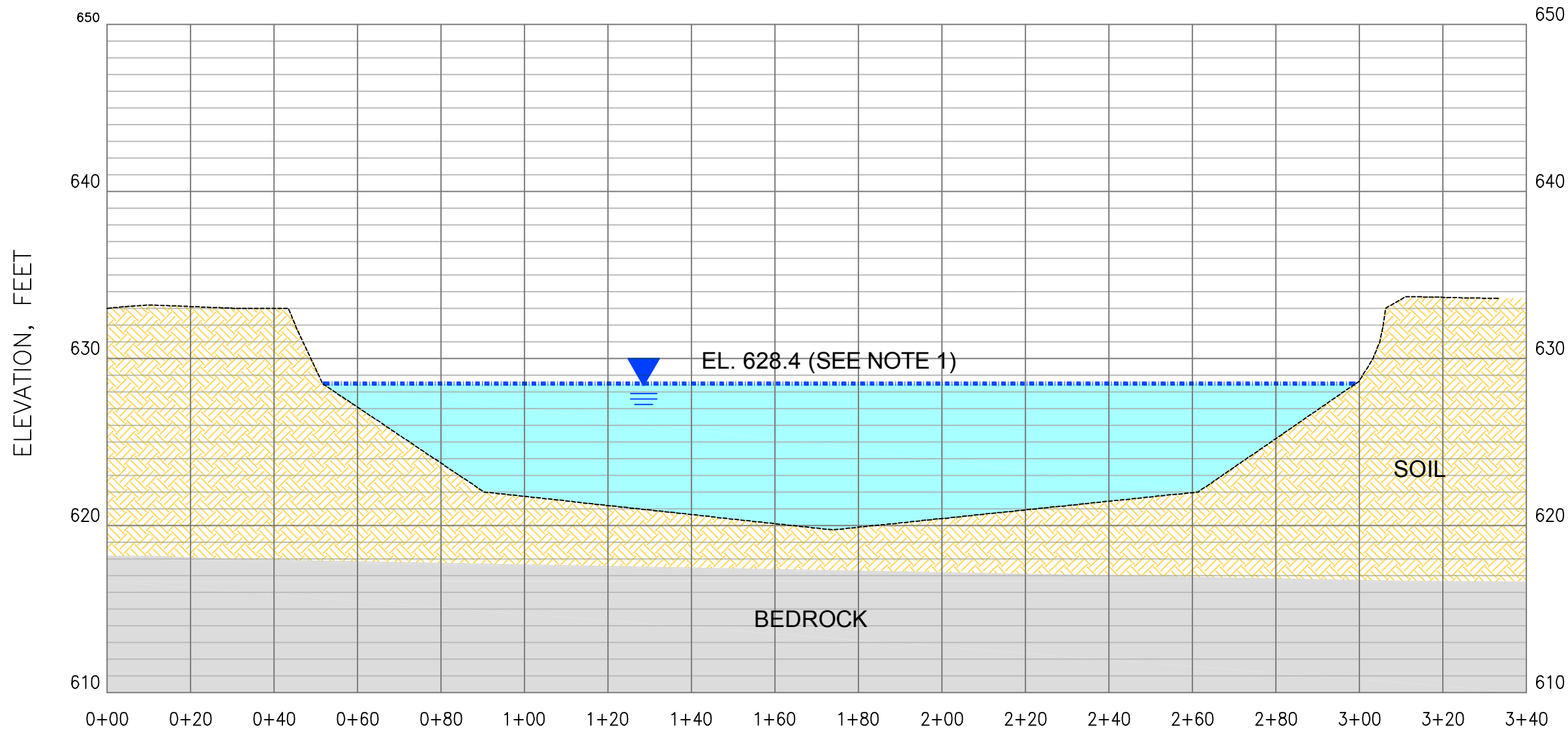


DESIGNED BY: M. Donegan	NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION		
DRAWN BY: A. Smith	EXISTING SITE CONDITIONS ALTECH SPECIALTY STEEL CONTRACT NO. D008535 DUNKIRK, NEW YORK		
CHECKED BY: M. Sausville	DATE: 4/19/13	SCALE: AS SHOWN	SHEET NO. C-1
APPROVED BY: M. Sausville	DRAWING NO. 134685-22D8		

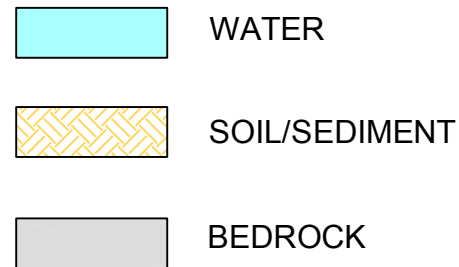
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OFFICE
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NUMBER
134685-22D8

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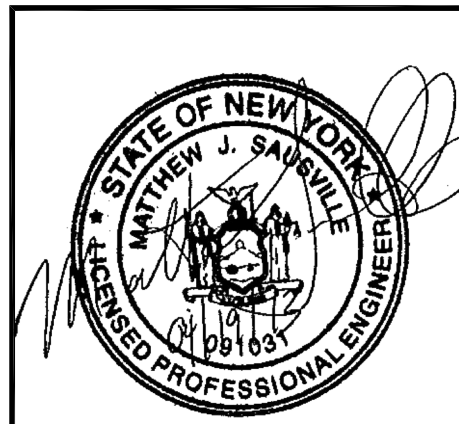
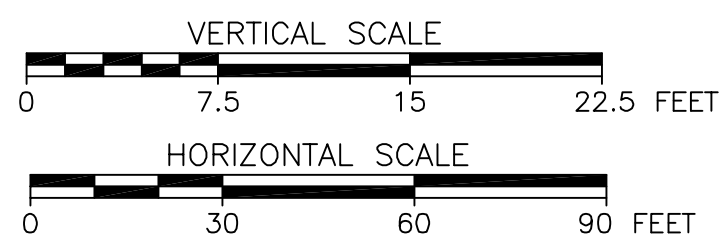


LEGEND:



NOTE:

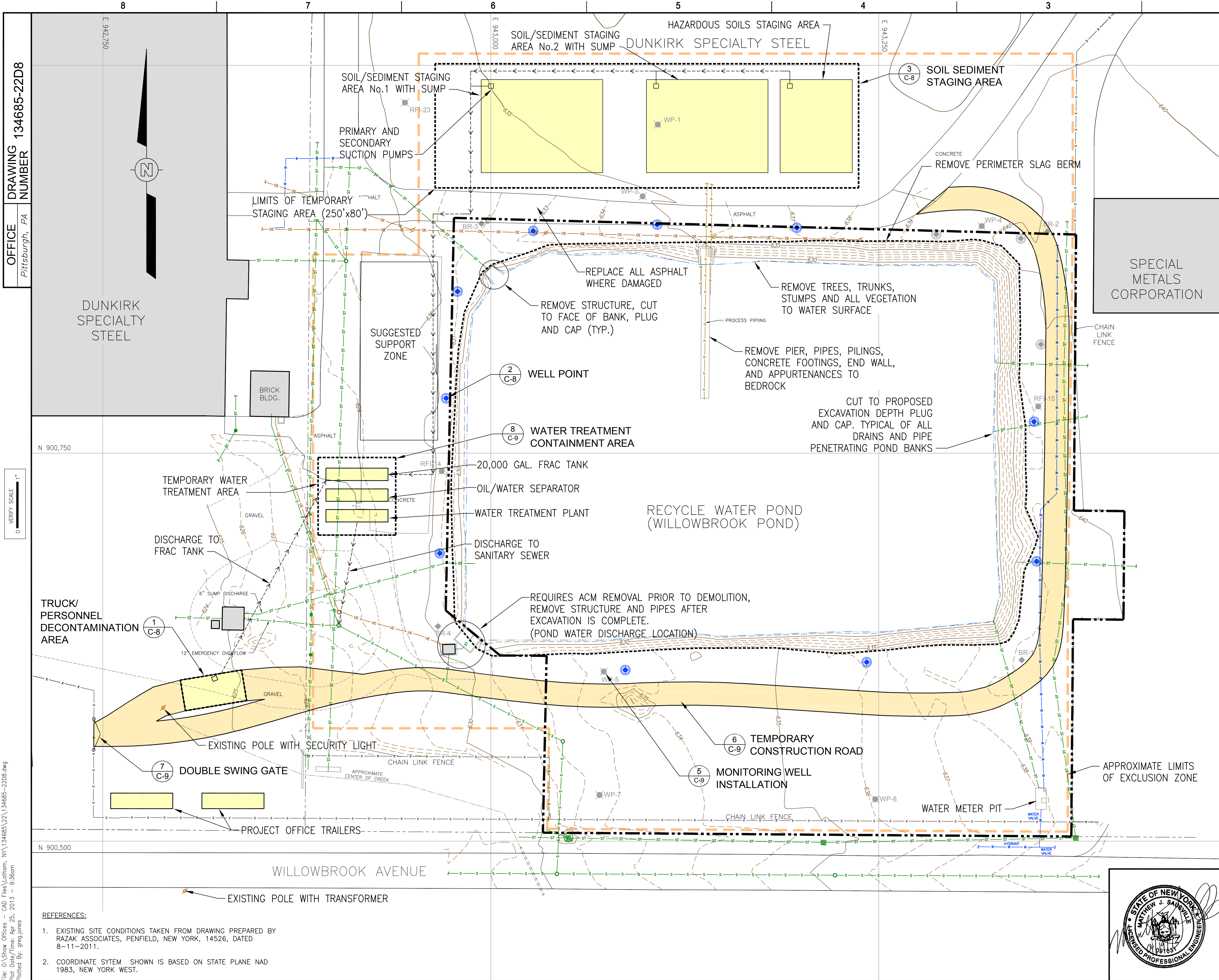
1. POND WATER ELEVATION IS CONTROLLED BY WEIR AT SOUTHWEST CORNER OF POND AND DOES NOT CHANGE SIGNIFICANTLY.



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C	ISSUED FINAL CONTRACT DRAWINGS	4/19/13	M.J.S.

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DESIGNED BY: M. Donegan	NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION		
DRAWN BY: A. Smith			
CHECKED BY: M. Sausville	EXISTING SECTIONS ALTECH SPECIALTY STEEL CONTRACT NO. D008535 DUNKIRK, NEW YORK		
APPROVED BY: M. Sausville			
DATE: 4/19/13	SCALE: AS SHOWN	DRAWING NO. 134685-22D8	SHEET NO. C-2



LEGEND:

- PROPOSED WELL POINT
- EXISTING MONITORING WELL
- EXISTING WELL POINT
- EXCLUSION ZONE

NOTES:

- FOR GENERAL LEGEND SEE SHEET C-1.
- ALL CULVERTS, ROCKS, PIPES, ROOT BALLS TO BE WASHED OF ALL SOIL/SEDIMENT AFTER EXCAVATION.
- ALL CLEARED BRUSH, TREES, AND CLEAN ROOTS TO BE SHREDDED AND MULCHED FOR USE ON SITE.
- WELL POINT HEADER SYSTEM (NOT SHOWN TO DISCHARGE TO FRAC TANK)
- CONTRACTOR SHALL DECOMMISSION AND REPLACE MONITORING WELLS THAT ARE DAMAGED DURING CONSTRUCTION ACTIVITIES.
- IF CONTAMINATION IS ENCOUNTERED DURING PROPOSED EXCAVATION ACTIVITIES THAT EXTENDS OFF SITE, CONTRACTOR SHALL CONTINUE EXCAVATION AS DIRECTED BY ENGINEER AND DEPARTMENT.
- LOCATION OF TEMPORARY ACCESS ROAD CAN BE MODIFIED BY CONTRACTOR BASED ON THEIR MEANS AND METHODS TO PERFORM THE WORK AS APPROVED BY THE ENGINEER.
- CONTRACTOR SHALL PROVIDE WITHIN THE EXCLUSION ZONE, A SEPARATE DECONTAMINATION AREA THAT SHALL BE USED FOR ALL EQUIPMENT THAT COMES INTO CONTACT WITH PCB CONTAMINATED MATERIALS CAPTURE PRODUCT SHALL BE STAGED IN DRUMS FOR OFFSITE DISPOSAL.
- HAZARDOUS MATERIAL IS INDICATIVE OF PCB CONTAMINATED MATERIAL WITH CONCENTRATIONS OF 50 PARTS PER MILLION GRATER.

POND NOTES:

- DEWATER POND AS SPECIFIED. TREAT AND DISCHARGE WATER TO SANITARY SEWER AS DESCRIBED IN CONTRACT SPECIFICATIONS.
- DEBRIS REMOVED FROM POND TO BE PLACED IN SOIL/SEDIMENT STAGING AREA.
- REMOVE SEDIMENT TO BEDROCK AND PLACE IN STAGING AREA.
- PUMP AND TREAT WATER FROM SOIL/SEDIMENT STAGING AREAS, DECONTAMINATION AREA AND WELL POINT DEWATERING SYSTEM. DISCHARGE EFFLUENT TO SANITARY SEWER OR AT APPROVED SPDES PERMIT LOCATION.
- BACKFILL POND WITH CLEAN IMPORTED MATERIAL TO DESIGN GRADE.

SCALE

0 30 60 90 FEET

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DESIGNED BY:
M. Donegan

DRAWN BY:
A. Smith

CHECKED BY:
M. Sausville

APPROVED BY:
M. Sausville

DATE:
4/19/13

SCALE:
AS SHOWN

DRAWING NO.
134685-22D8

SHEET NO.
C-3

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL
CONSERVATION

SITE WORK PLAN
ALTECH SPECIALTY STEEL
CONTRACT NO. D008535
DUNKIRK, NEW YORK

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Plotted By: greg.jones

OFFICE NUMBER
Pittsburgh, PA
DRAWING NUMBER
134685-22D8

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Plotted By: greg.jones

REFERENCES:

- EXISTING SITE CONDITIONS TAKEN FROM DRAWING PREPARED BY RAZAK ASSOCIATES, PENFIELD, NEW YORK, 14526, DATED 8-11-2011.
- COORDINATE SYTEM SHOWN IS BASED ON STATE PLANE NAD 1983, NEW YORK WEST.

LEGEND:

- APPROXIMATE LIMITS OF SLUDGE AT WATER SURFACE (~628.4') (REMOVE TO BEDROCK)
- LIMITS OF SEDIMENT REMOVAL (REMOVE TO BEDROCK)
- 1 FOOT EXCAVATION
- 2 FOOT EXCAVATION
- 3 FOOT EXCAVATION
- 4 FT EXCAVATION
- APPROXIMATE LIMITS OF HAZARDOUS SEDIMENT REMOVAL (PCB CONCENTRATIONS ≥ 50 PPM)
- 619 APPROXIMATE TOP OF BEDROCK (DASHED WHERE INFERRED)
- 622 APPROXIMATE TOP OF SEDIMENT CONTOUR (BASED ON SAMPLING)
- PROPOSED WELL POINT LOCATION FOR DEWATERING

NOTES:

- FOR GENERAL LEGEND SEE SHEET C-1.
- FOR SECTIONS F THROUGH J, SEE SHEET C-5.
- WELL POINT HEADER SYSTEM (NOT SHOWN) TO DISCHARGE TO FRAC TANK SHOWN ON SHEET C-3.
- REMOVE ALL POND SEDIMENT TO BEDROCK AS SHOWN ON SHEET C-5. SWEEP OR PRESSURE WASH BEDROCK CLEAN AS DIRECTED. COLLECT AND TREAT ALL WASH WATER.
- STAGING OF EXCAVATED MATERIALS SHALL BE COMPLETED AS SHOWN ON C-3.
- EXCAVATE FROM POND WATER SURFACE AT 2:1 SLOPE TO BEDROCK UNLESS OTHERWISE DIRECTED BY ENGINEER (SHEET C-5).

SCALE
0 25 50 75 FEET

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DESIGNED BY:
M. Donegan

DRAWN BY:
A. Smith

CHECKED BY:
M. Sausville

APPROVED BY:
M. Sausville

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL
CONSERVATION

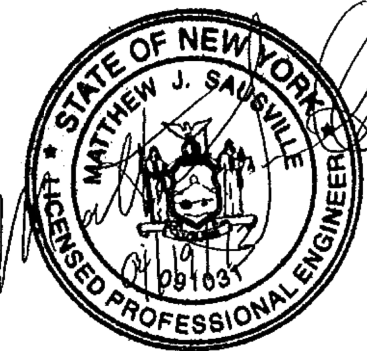
EXCAVATION AND DEWATERING PLAN
ALTECH SPECIALTY STEEL
CONTRACT NO. D008535
DUNKIRK, NEW YORK

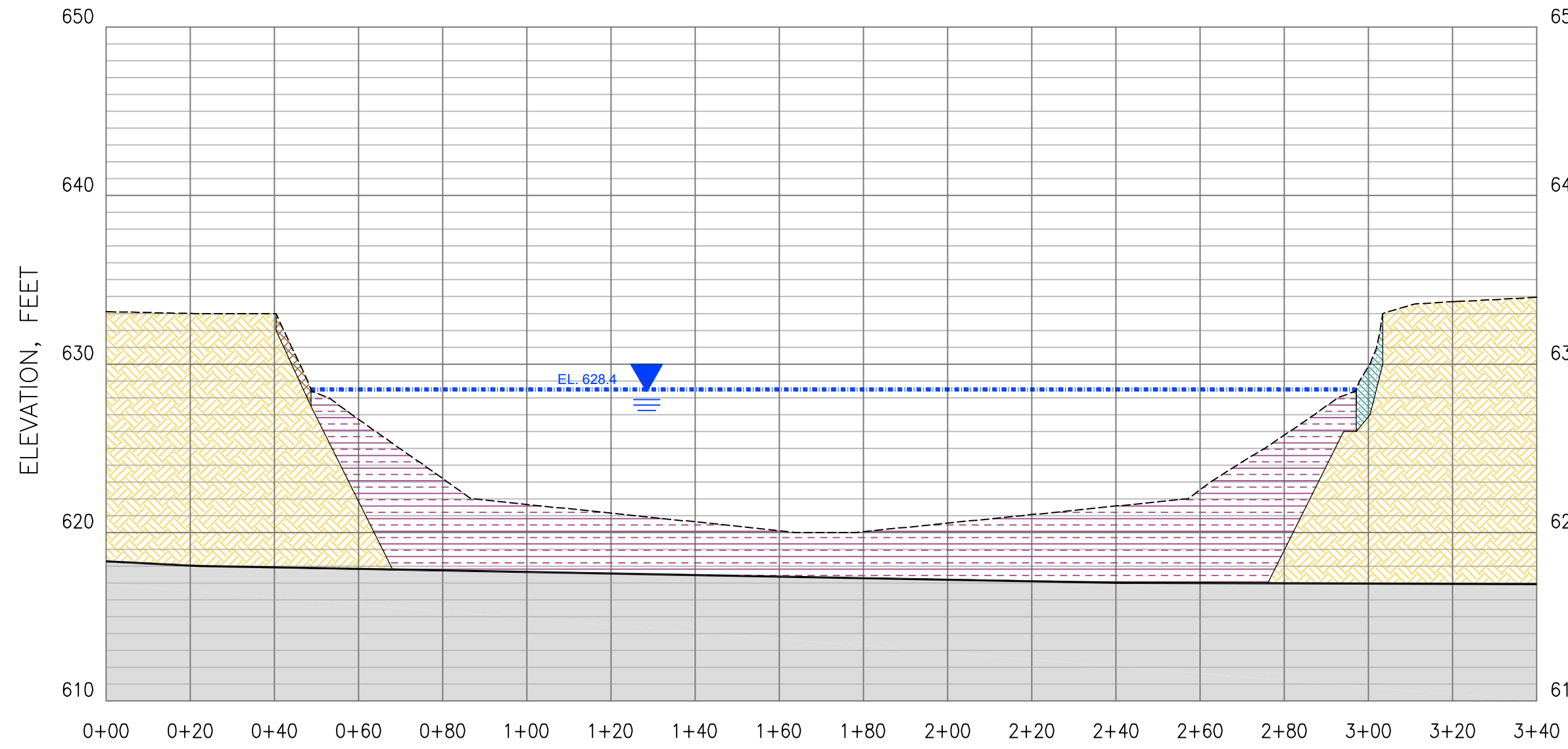
DATE:
4/19/13

SCALE:
AS SHOWN

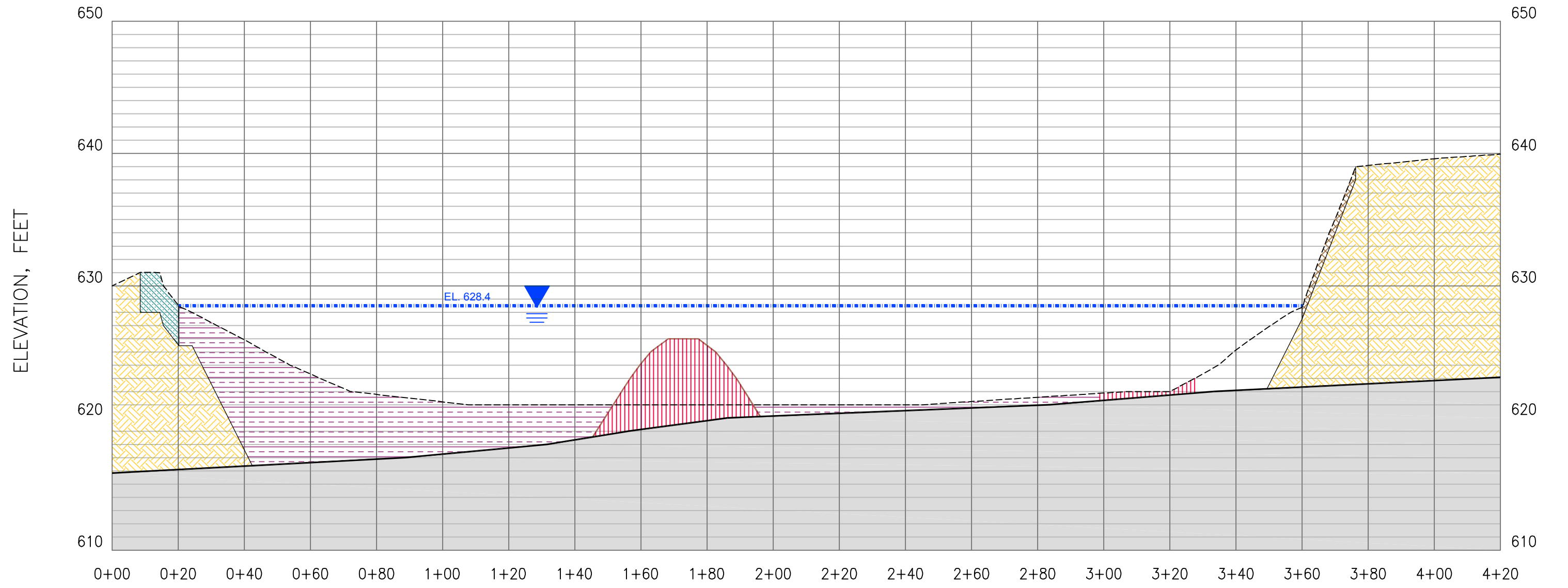
DRAWING NO.
134685-22D8

SHEET NO.
C-4

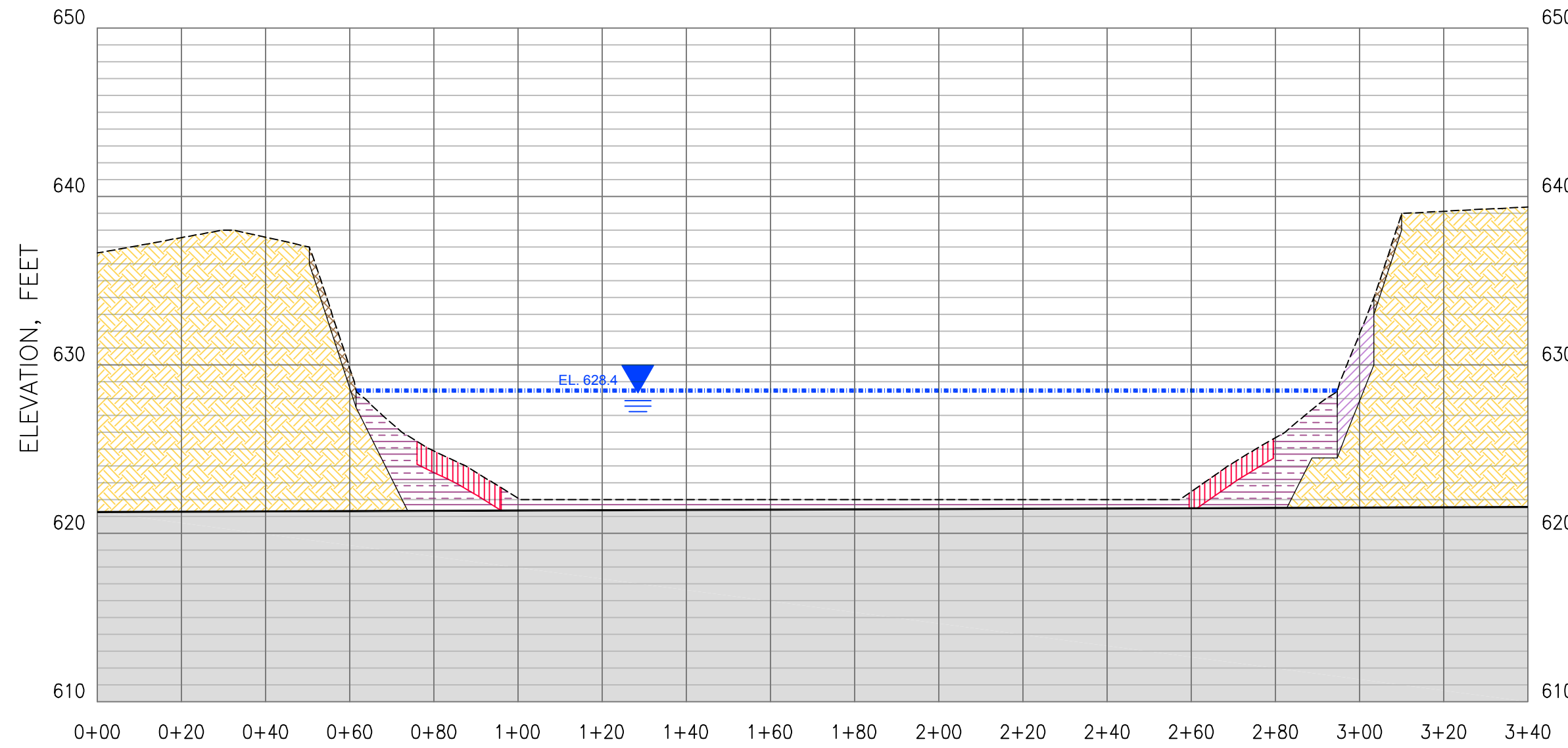




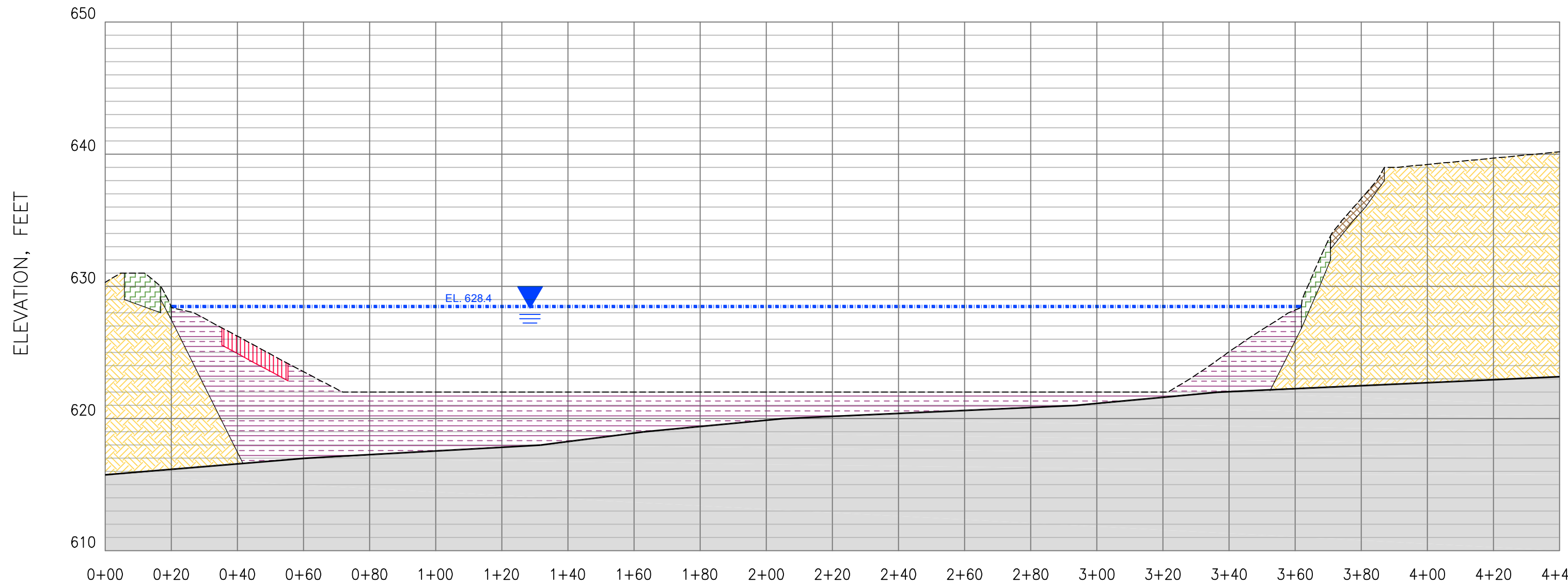
SECTION F
C-4



SECTION H
C-4



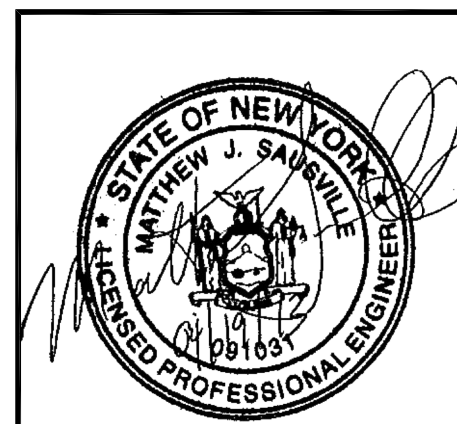
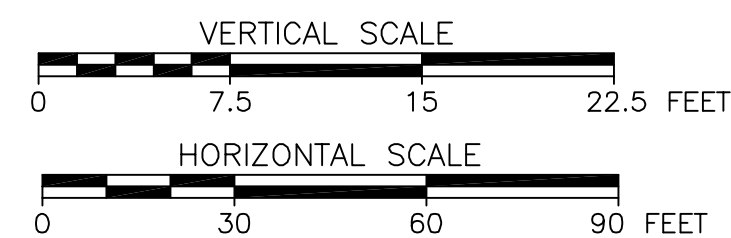
SECTION G
C-4



SECTION J
C-4

LEGEND:

- SEDIMENT EXCAVATION
- 1 FOOT EXCAVATION
- 2 FOOT EXCAVATION
- 3 FOOT EXCAVATION
- 4 FT EXCAVATION
- BEDROCK
- EXISTING SOILS
- HAZARDOUS SOILS REMOVAL
(1 FOOT SIDE SLOPES)



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DESIGNED BY: M. Donegan	NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION		
DRAWN BY: A. Smith			
CHECKED BY: M. Sausville	EXCAVATION SECTIONS ALTECH SPECIALTY STEEL CONTRACT NO. D008535 DUNKIRK, NEW YORK		
APPROVED BY: M. Sausville			
DATE: 4/19/13	SCALE: AS SHOWN	DRAWING NO. 134685-22D8	SHEET NO. C-5

DUNKIRK
SPECIALTY
STEEL

PERIMETER EARTH DIKE

GRASS WATERWAY

ROCK OUTLET PROTECTION

WILLOWBROOK AVENUE

REFERENCES:

1. EXISTING SITE CONDITIONS TAKEN FROM DRAWING PREPARED BY RAZAK ASSOCIATES, PENFIELD, NEW YORK, 14526, DATED 8-11-2011.
2. COORDINATE SYTEM SHOWN IS BASED ON STATE PLANE NAD 1983, NEW YORK WEST.

DUNKIRK SPECIALTY STEEL

FINAL COVER

SPECIAL
METALS
CORPORATION

LEGEND:

- LIMITS OF GRADING
 —639— FINAL GRADE CONTOUR
 —639— EXISTING GRADE CONTOUR

NOTES:

1. FOR GENERAL LEGEND SEE SHEET C-1.
2. FOR SECTIONS K THROUGH N, SEE SHEET C-7.
3. GRADE TO PROMOTE NATURAL DRAINAGE AT 2.0% GRADE TO SOUTHWEST PORTION OF SITE. RUN-OFF TO EXISTING DRAINAGE DITCH . SEE DRAWING ES-3 FOR POST CONSTRUCTION STORMWATER CONTROLS.
4. FINAL GRADE OUTSIDE PERIMETER OF POND SHALL BE RETURNED TO MATCH EXISTING CONDITION OR AS APPROVED BY ENGINEER.

SCALE



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DESIGNED BY:	M. Donegan
--------------	------------

DRAWN BY:
A. Smith

CHECKED BY:
M. Sausville

APPROVED BY:
M. Sausville

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL
CONSERVATION

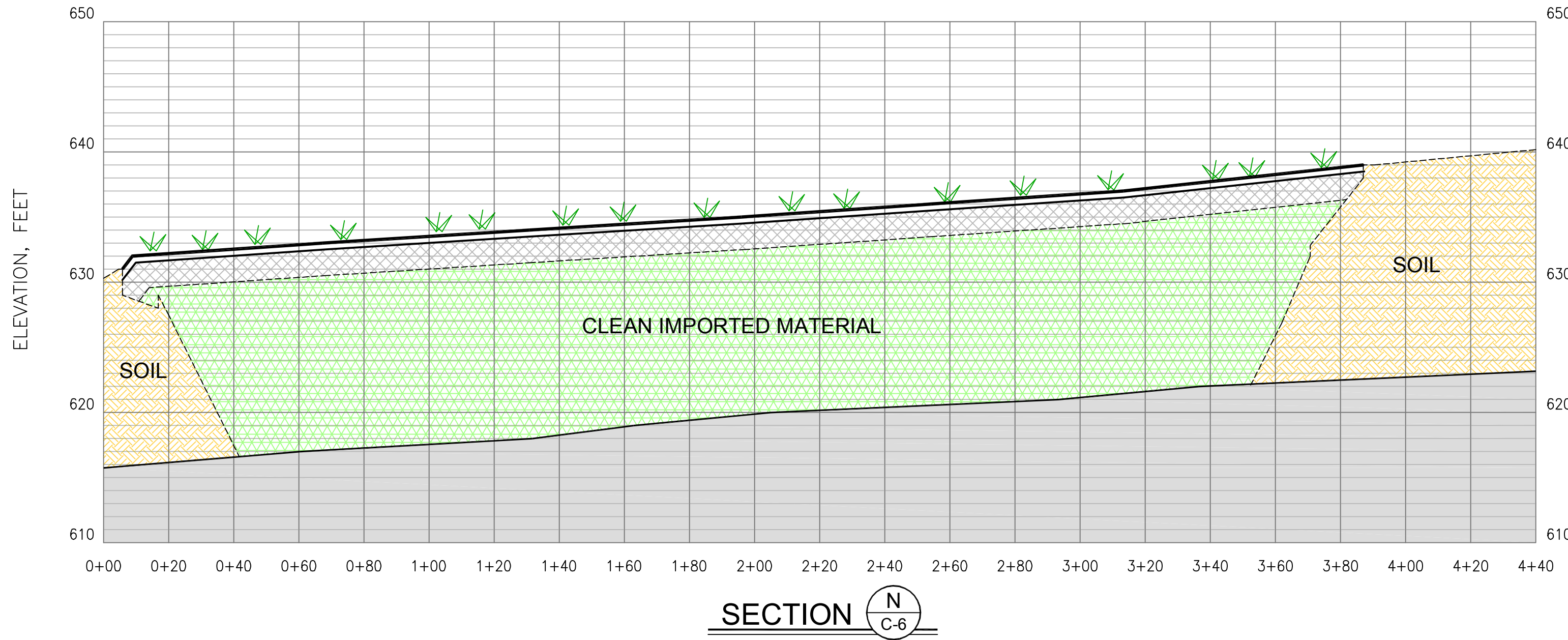
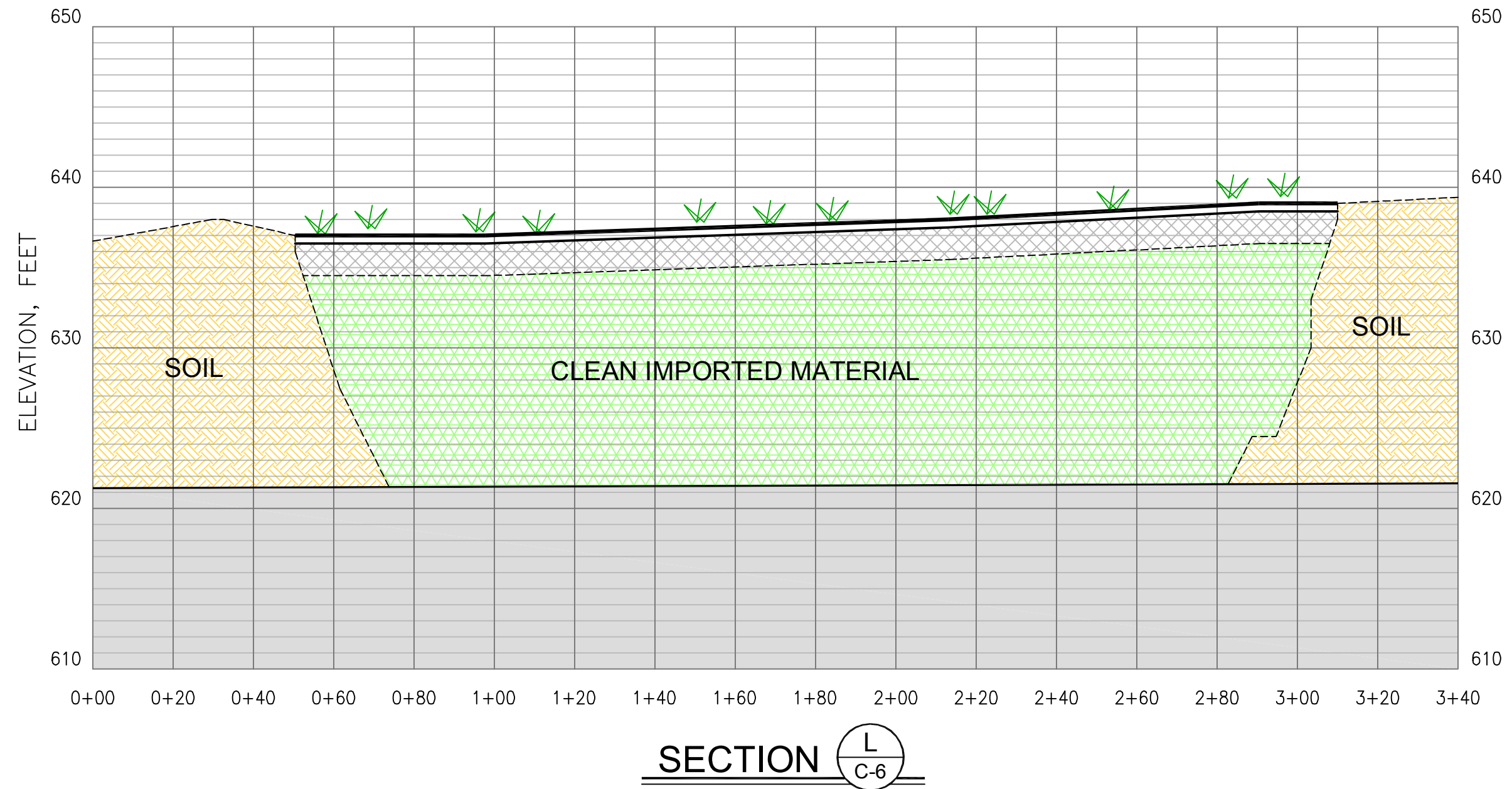
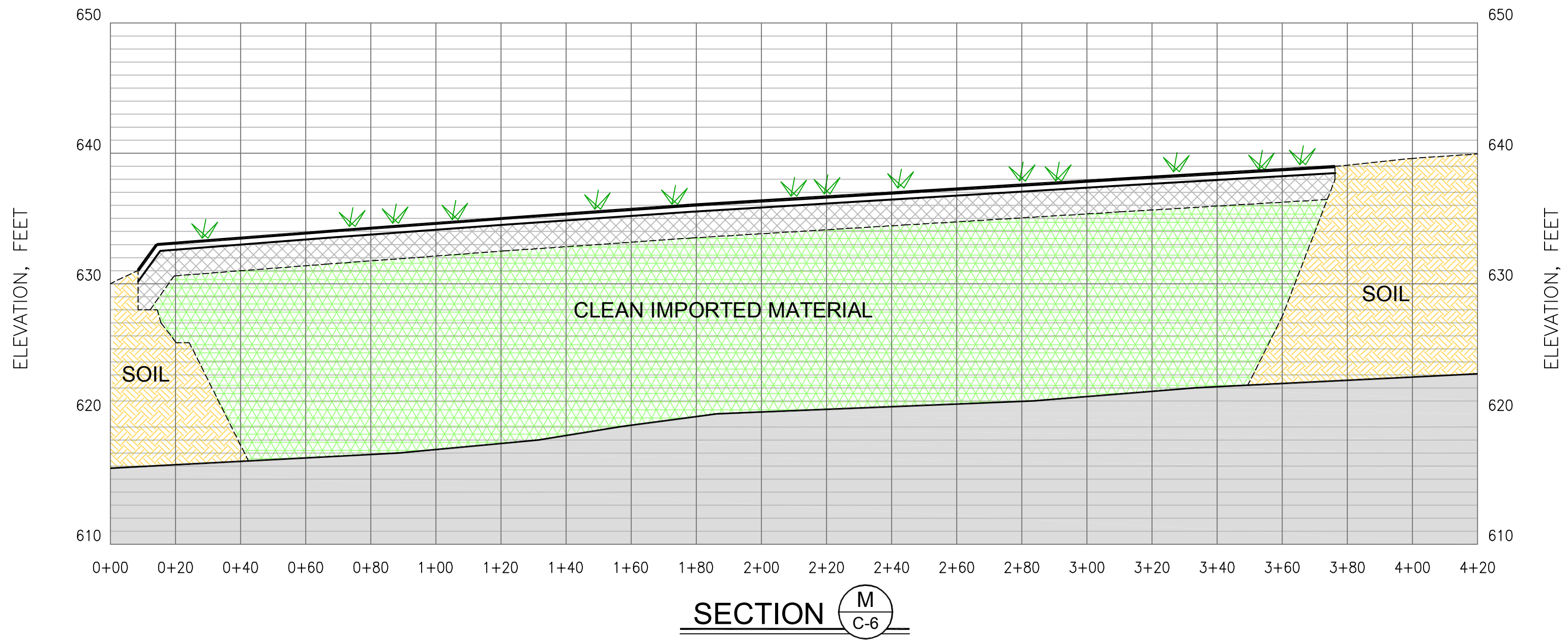
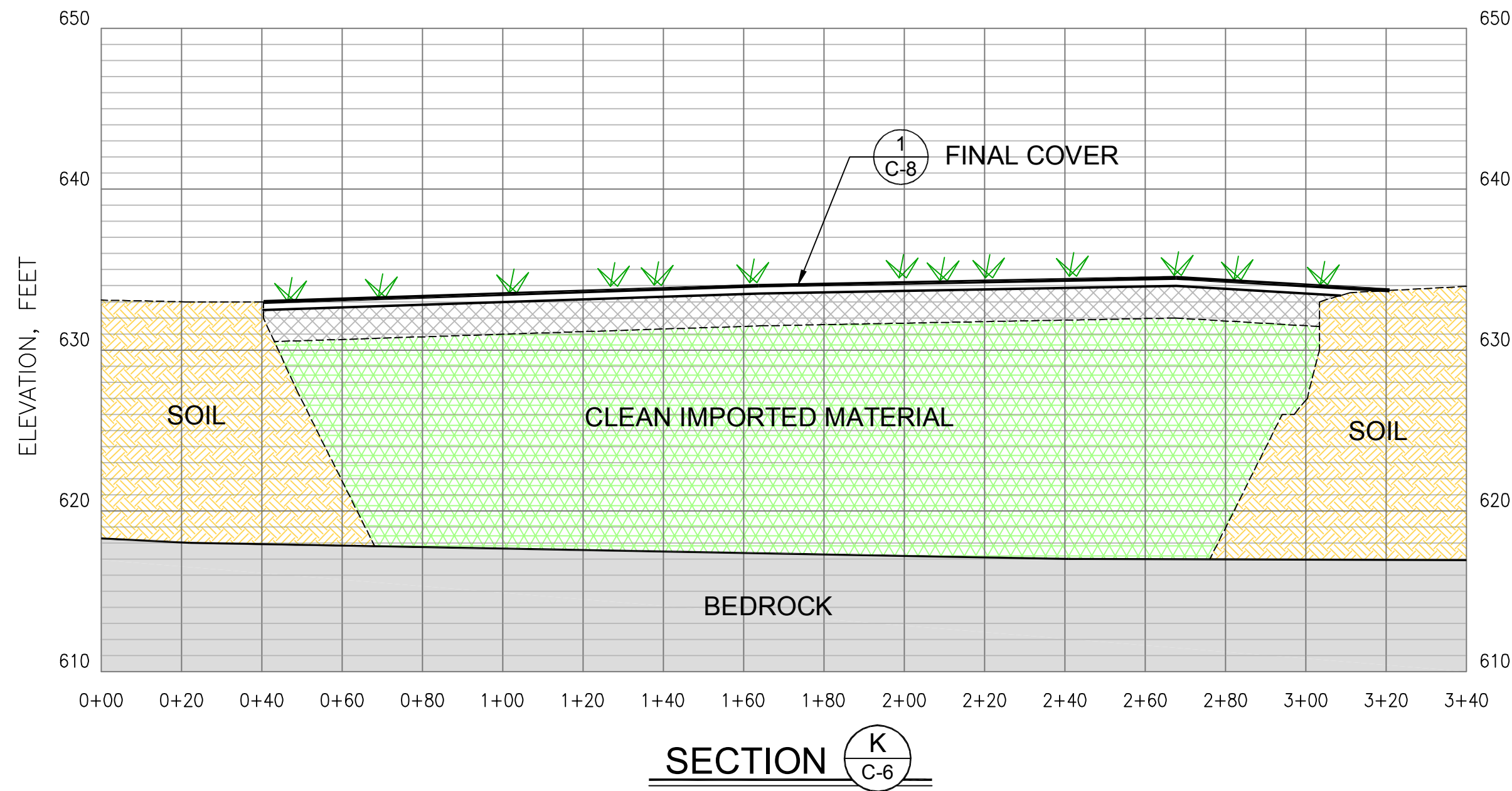
FINAL GRADING PLAN
ALTECH SPECIALTY STEEL
CONTRACT NO. D008535
DUNKIRK, NEW YORK

DATE:	4/19/13
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SCALE:
AS SHOWN

DRAWING NO.	S
134685-22D8	

SHEET NO.
C-6

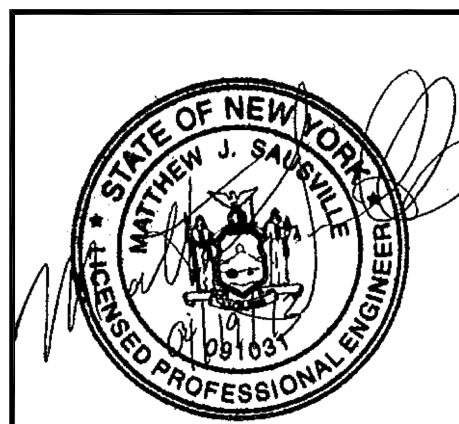
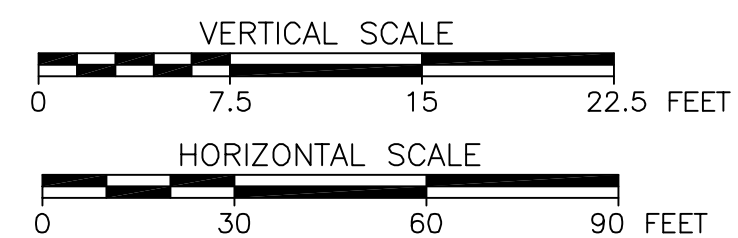


LEGEND:

- TOP OF FINAL GRADE
- CLEAN IMPORTED MATERIAL
- TOPSOIL
- BEDROCK
- EXISTING SOIL
- SELECT GRANULAR MATERIAL

NOTE:

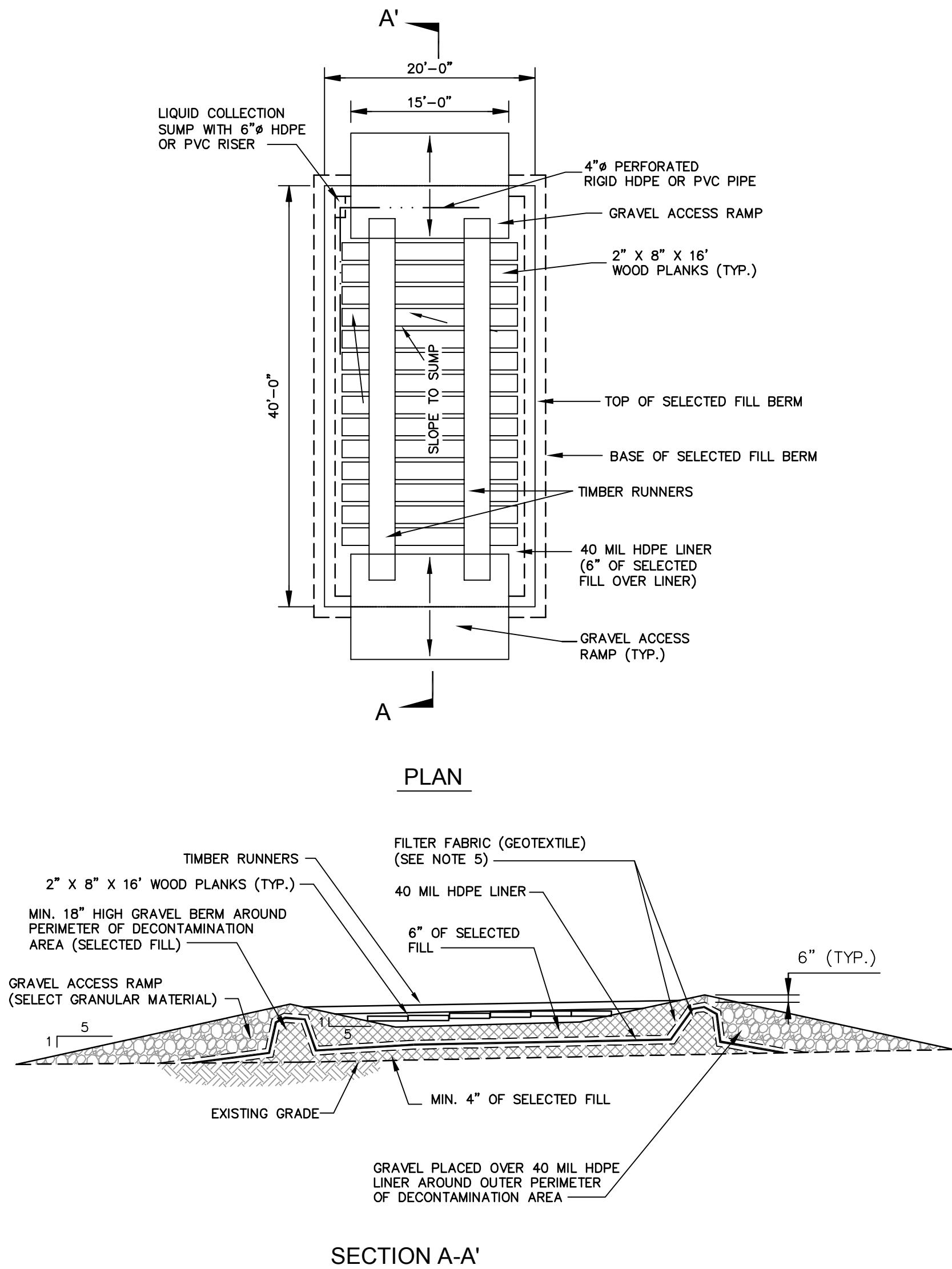
CLEAN IMPORTED MATERIAL SHALL BE A MATERIAL TYPE INCLUDED IN SPECIFICATION 02230 EARTHWORK AND SELECTION SHALL BE APPROVED BY ENGINEER.



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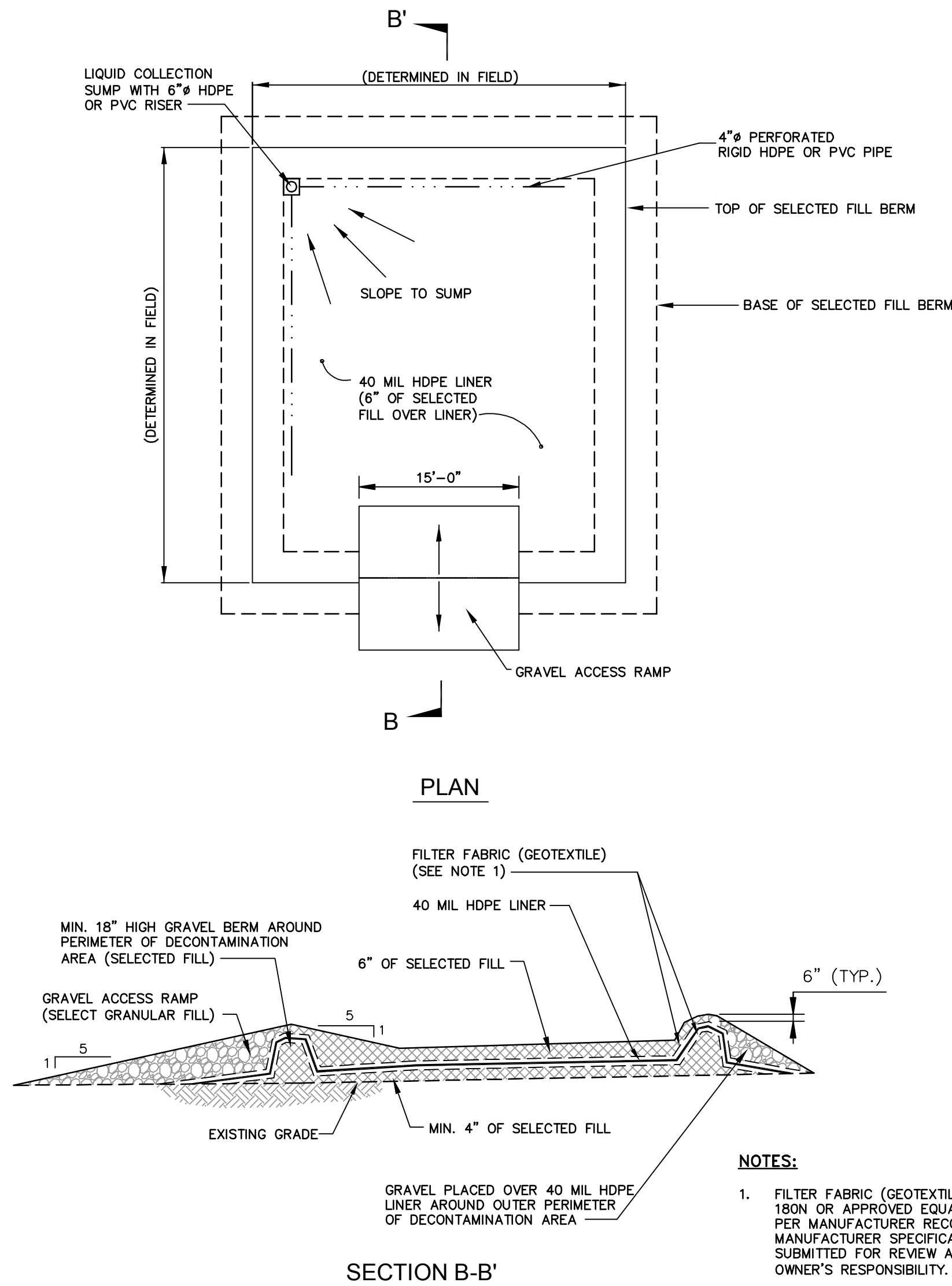
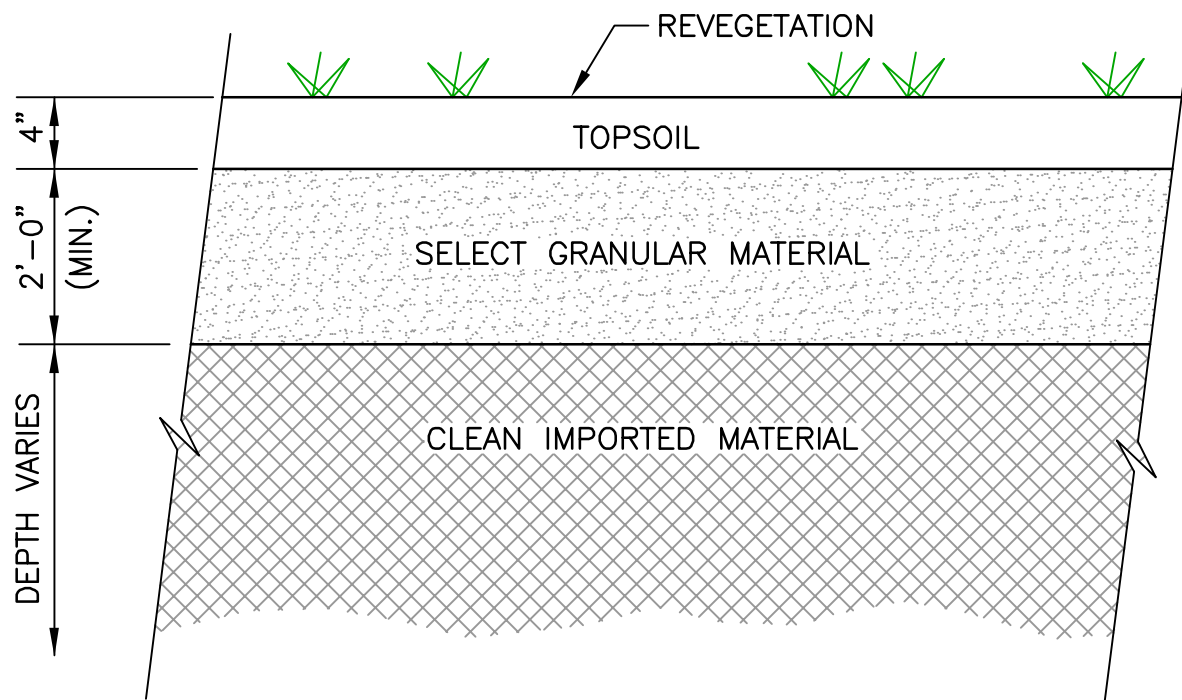
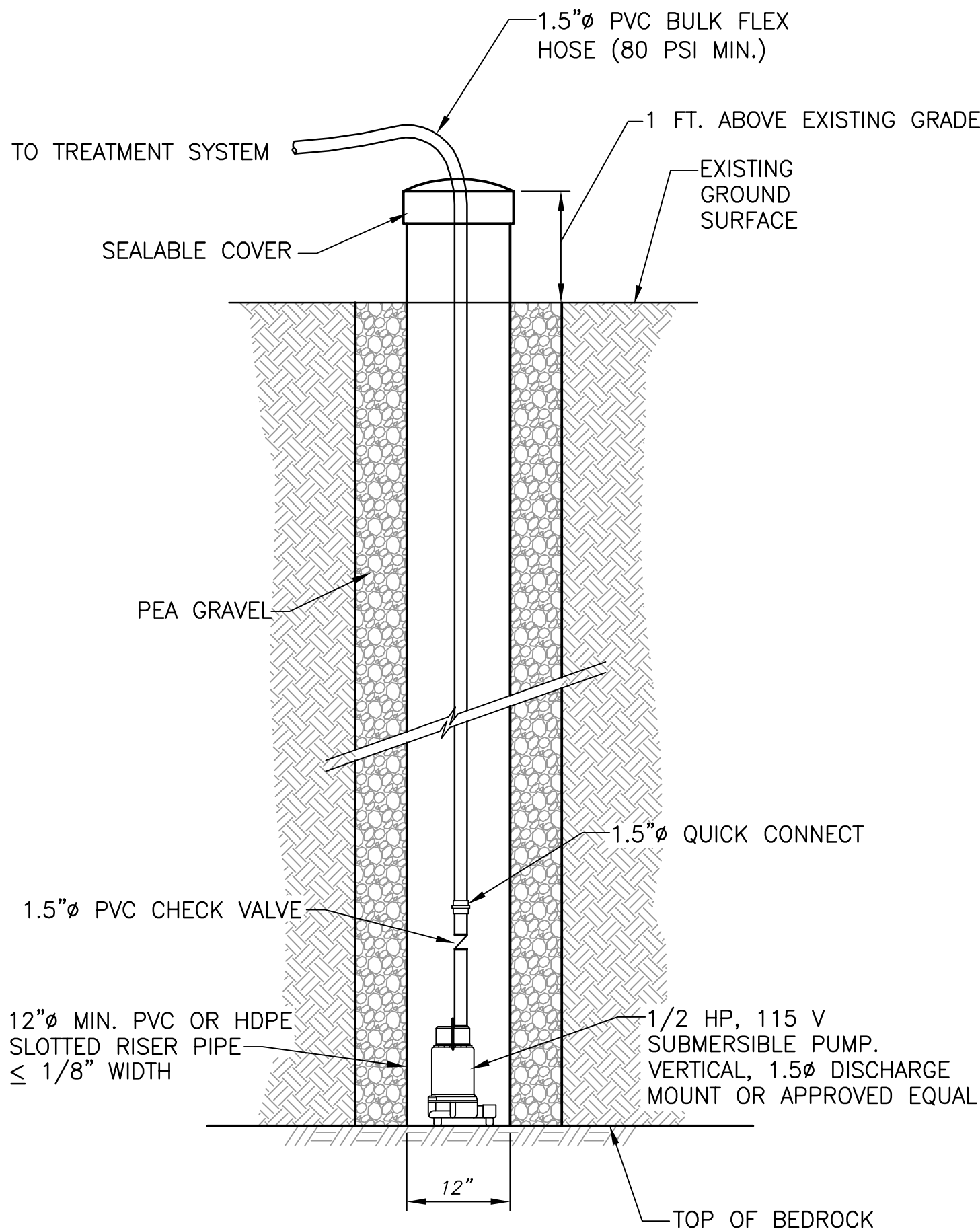


DESIGNED BY: M. Donegan	NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION		
DRAWN BY: A. Smith	FINAL SECTIONS ALTECH SPECIALTY STEEL CONTRACT NO. D008535 DUNKIRK, NEW YORK		
CHECKED BY: M. Sausville	DATE: 4/19/13	SCALE: AS SHOWN	DRAWING NO. 134685-22D8
APPROVED BY: M. Sausville	SHEET NO. C-7		



- NOTES:**
- DECONTAMINATION AREAS TO BE CONSTRUCTED PRIOR TO CONSTRUCTION ACTIVITIES. CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT THE DECONTAMINATION AREAS FUNCTION AND ARE PROPERLY MAINTAINED.
 - DECONTAMINATION AREA OUTSIDE THE EXCLUSION ZONE SHALL HAVE A GENERAL SLOPE TOWARD A COLLECTION SUMP TO FACILITATE THE COLLECTION OF WASH FLUIDS. FLUIDS SHALL BE PUMPED FROM COLLECTION SUMP IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS.
 - UPON COMPLETION OF CONSTRUCTION ACTIVITIES, THE DECONTAMINATION AREAS, INCLUDING HDPE LINERS ARE TO BE REMOVED BY THE CONTRACTOR FOR DISPOSAL.
 - WOOD PLANKS SHALL BE PROVIDED AND PLACED ABOVE THE GRAVEL DRAINAGE LAYER THROUGHOUT THE WORKING SURFACE OF THE DECONTAMINATION AREAS TO PROVIDE STABLE SURFACES FOR VEHICLES AND EQUIPMENT TO BE DECONTAMINATED. DAMAGED WOOD PLANKS SHALL BE REPLACED DURING CONSTRUCTION ACTIVITIES (AS NECESSARY) TO MAINTAIN STABLE SURFACE.
 - FILTER FABRIC (GEOTEXTILE) SHALL BE MIRAFI 180N OR APPROVED EQUAL AND INSTALLED AS PER MANUFACTURER RECOMMENDATIONS. MANUFACTURER SPECIFICATION SHEET SHALL BE SUBMITTED FOR REVIEW AND ACCEPTANCE BY THE OWNER'S REPRESENTATIVE.
 - FOR THE HAZARDOUS TEMPORARY DECONTAMINATION PAD IN THE EXCLUSION ZONE, THE FLUIDS OR MATERIALS USED DURING DECONTAMINATION SHALL BE COLLECTED AND CONTAINERIZED FOR OFF-SITE DISPOSAL OF AN APPROVED DISPOSAL FACILITY. EXACT DIMENSIONS SHALL BE DETERMINED IN THE FIELD AND APPROVED BY ENGINEER.

DETAIL 1 C-3
EQUIPMENT/PERSONNEL DECONTAMINATION AREA
NOT TO SCALE



- NOTES:**
- FILTER FABRIC (GEOTEXTILE) SHALL BE MIRAFI 180N OR APPROVED EQUAL AND INSTALLED AS PER MANUFACTURER RECOMMENDATIONS. MANUFACTURER SPECIFICATION SHEET SHALL BE SUBMITTED FOR REVIEW AND ACCEPTANCE BY THE OWNER'S RESPONSIBILITY.
 - CONTRACTOR SHALL REMOVE STAGING AREAS, WELL POINTS, AND DECONTAMINATION AREA FOLLOWING COMPLETION OF CONSTRUCTION ACTIVITIES OR AS DIRECTED.

DETAIL 3 C-3
SOIL / SEDIMENT STAGING AREA
NOT TO SCALE

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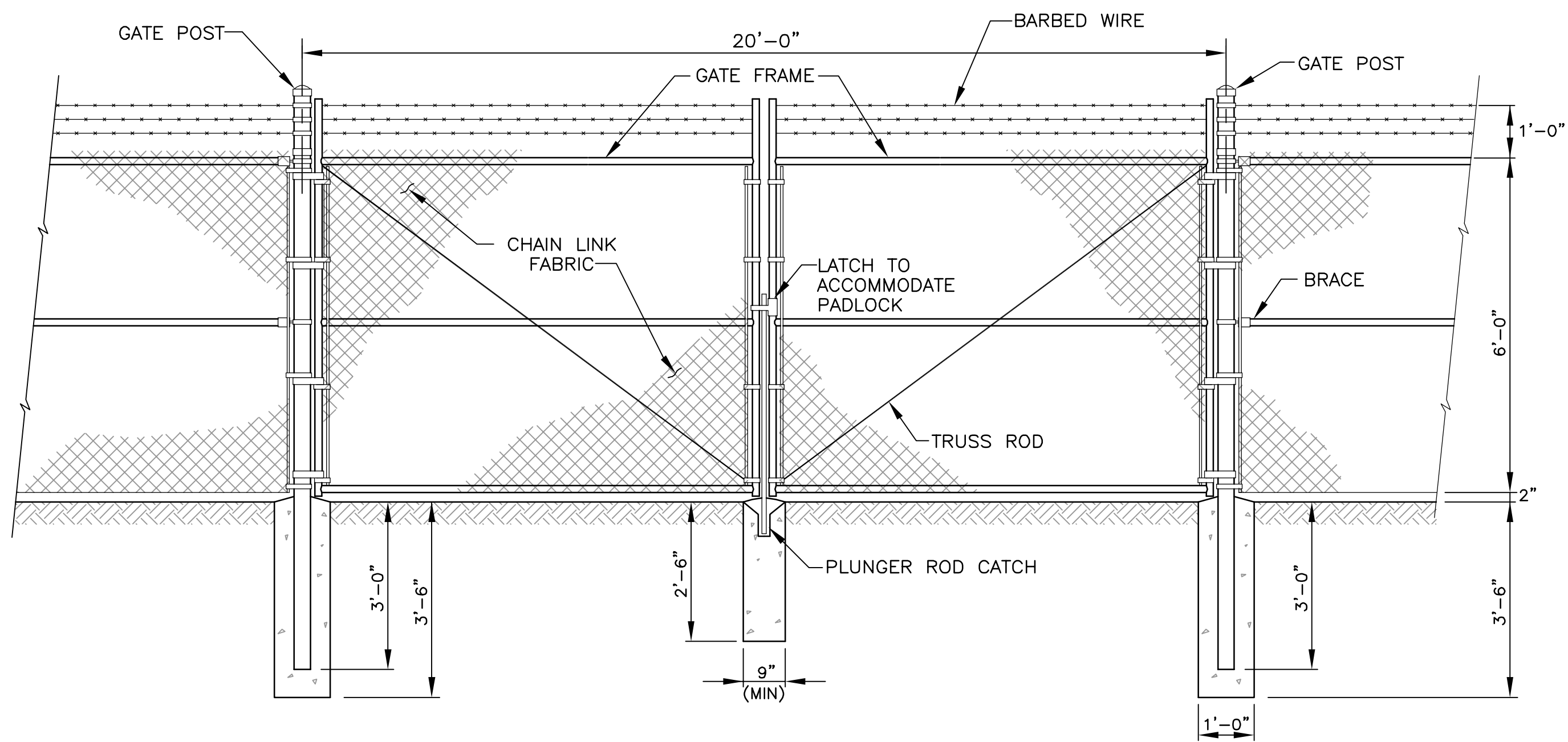


	DESIGNED BY: M. Donegan	NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION	
	DRAWN BY: A. Smith	MISCELLANEOUS DETAILS - SHEET 1 OF 2	
	CHECKED BY: M. Sausville	ALTECH SPECIALTY STEEL CONTRACT NO. D008535 DUNKIRK, NEW YORK	
	APPROVED BY: M. Sausville	DATE: 4/19/13	SHEET NO. C-8

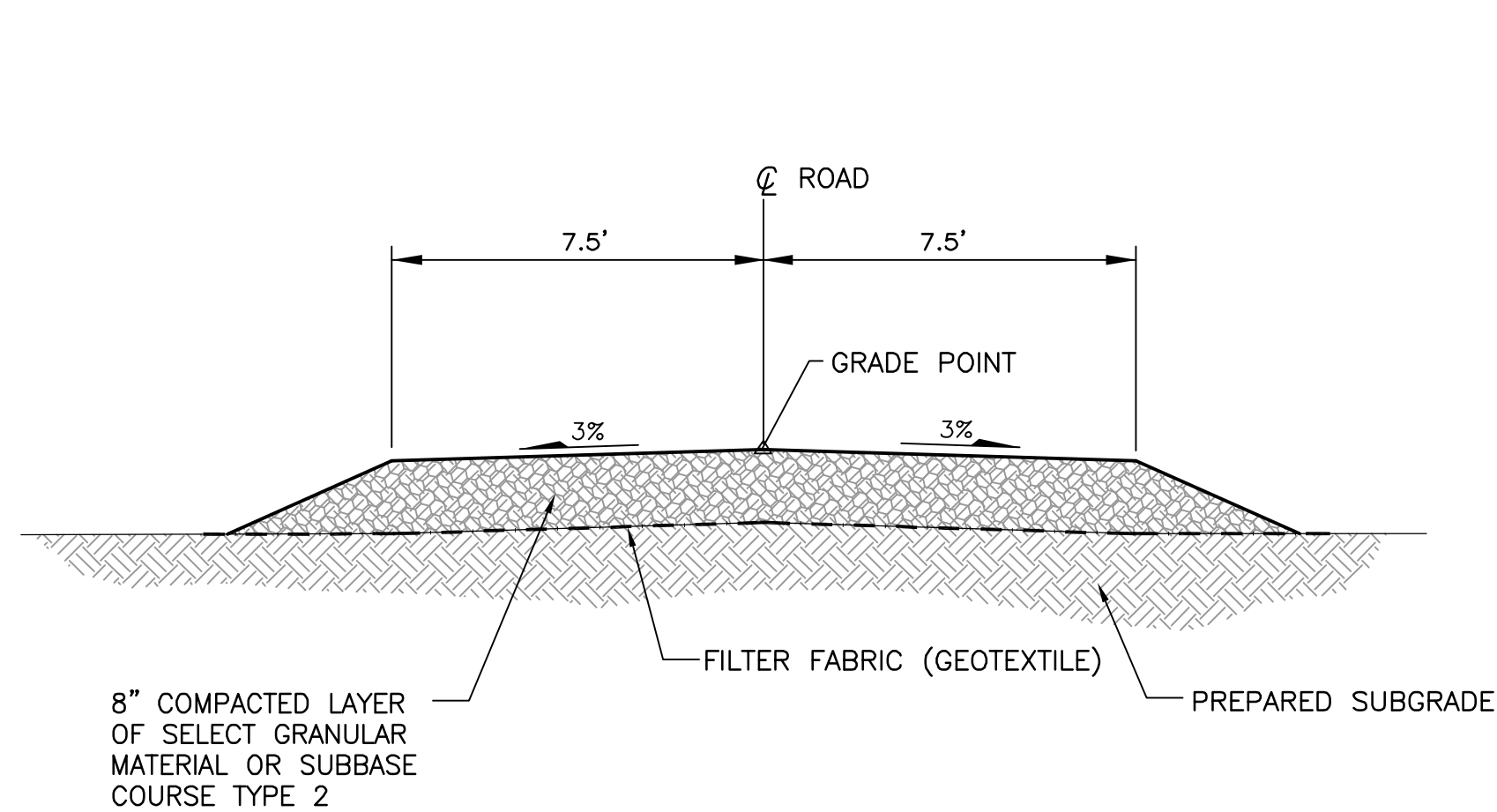
NOTES:

1. THE WELL WILL BE CONSTRUCTED OF 2" SCH 40 PVC WITH FLUSH JOINT THREADS
2. THE BENTONITE SEAL WILL BE 2'-0" THICK AS A MINIMUM.
3. A CONCRETE SLAB WILL BE INSTALLED AROUND THE PROTECTIVE CASING.

DETAIL 5 MONITORING WELL INSTALLATION
NOT TO SCALE



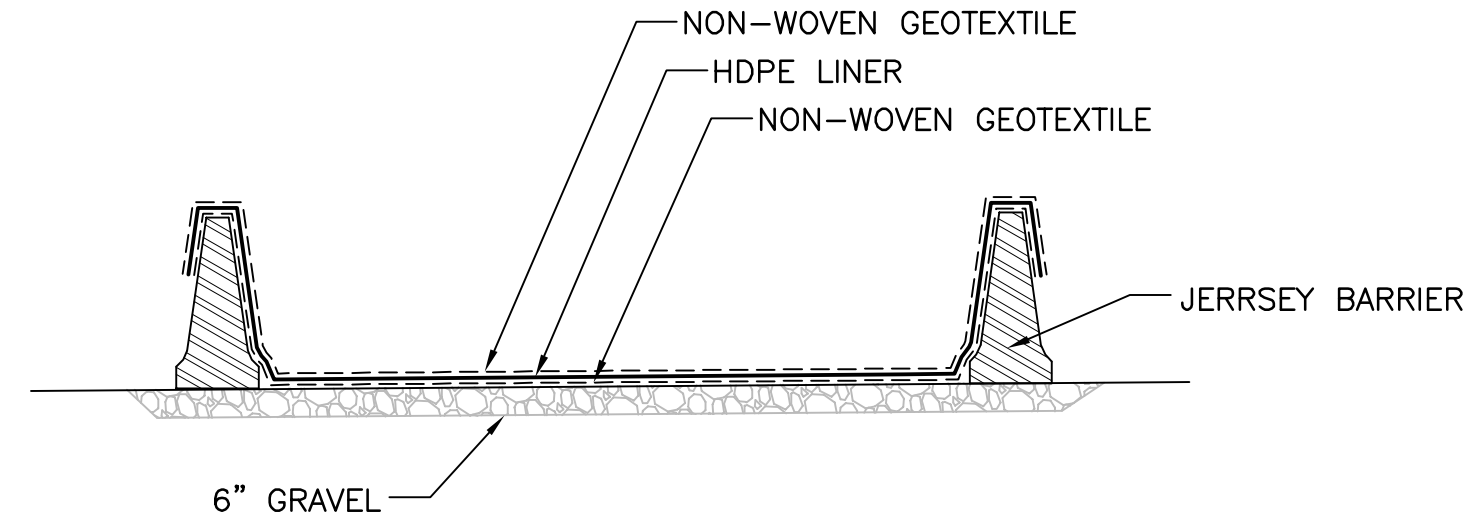
DETAIL 7 TYPICAL CHAIN LINK FENCE
NOT TO SCALE



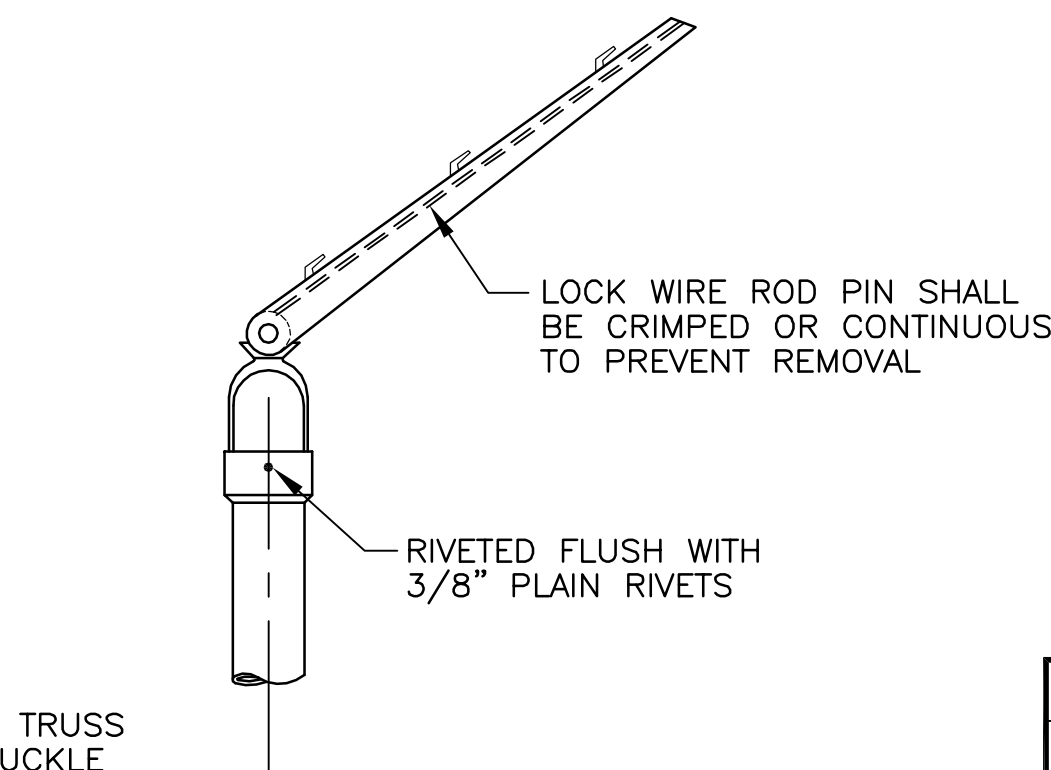
DETAIL 6 TEMPORARY CONSTRUCTION ROAD
NOT TO SCALE

NOTE:

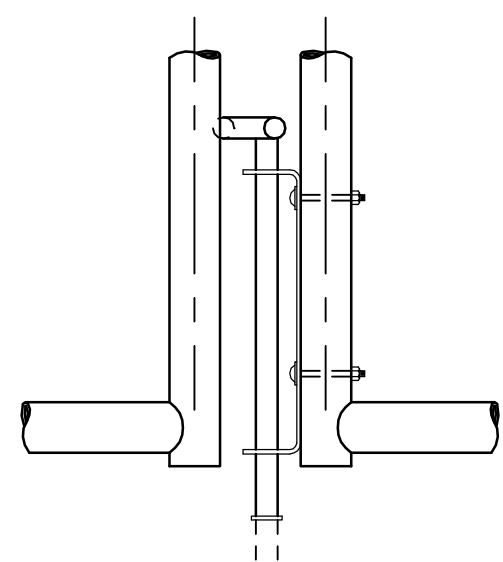
ROAD CROSS SLOPE MAY BE MODIFIED TO DRAIN ACROSS THE ENTIRE ROAD WIDTH PENDING APPROVAL FROM ENGINEER.



DETAIL 8 WATER TREATMENT CONTAINMENT AREA
NOT TO SCALE



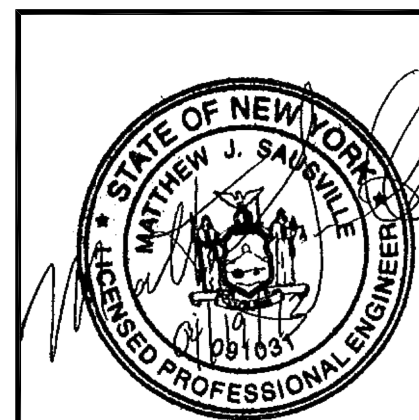
TOP BARB WIRE ARMS



DROP BAR ASSEMBLY

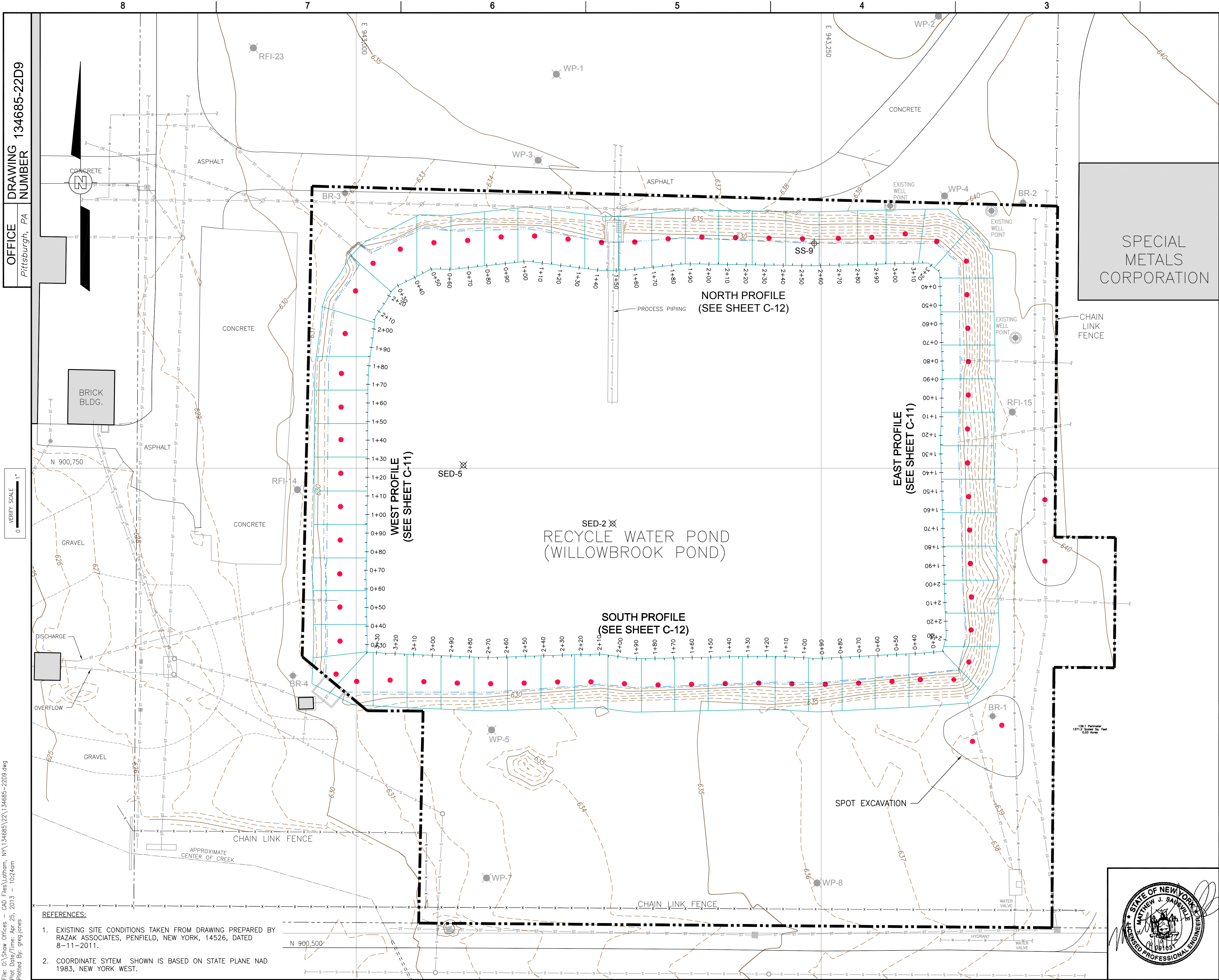
REV	DESCRIPTION / ISSUE	DATE	APPROVED
A	ISSUED FOR DEC DRAFT REVIEW	7/24/12	M.J.S.
B	ISSUED DRAFT FINAL CONTRACT DRAWINGS	10/30/12	M.J.S.
C	ISSUED FINAL CONTRACT DRAWINGS	4/19/13	M.J.S.

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DESIGNED BY: M. Donegan	NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION		
DRAWN BY: A. Smith	MISCELLANEOUS DETAILS - SHEET 2 OF 2		
CHECKED BY: M. Sausville	ALTECH SPECIALTY STEEL CONTRACT NO. D008535 DUNKIRK, NEW YORK		
APPROVED BY: M. Sausville	DATE: 4/19/13	SCALE: AS SHOWN	DRAWING NO. 134685-22D8 SHEET NO. C-9

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Plot Date/Time: Apr. 25, 2013 10:24am
Plotted By: greg.jones



LEGEND:

- PROPOSED CONFIRMATORY SAMPLE LOCATION
- BEDROCK CONFORMATION SAMPLE

NOTES:

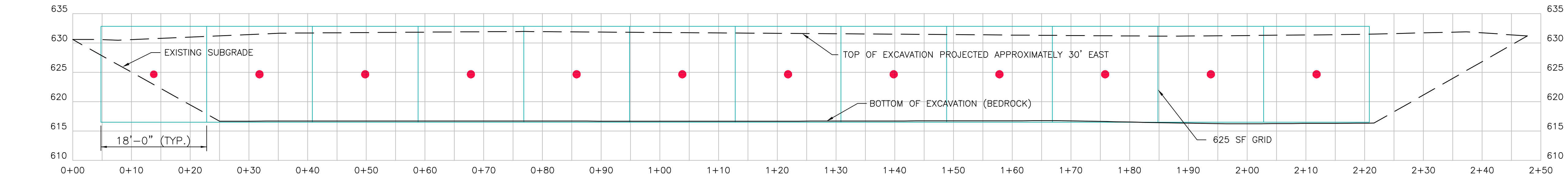
- FOR GENERAL LEGEND SEE SHEET C-1.
- CONFIRMATORY SAMPLE GRIDS SHALL BE LIMITED TO ENCOMPASS A MAXIMUM AREA OF 625 SF.
- REFER TO DRAWING C-4 FOR EXCAVATION PLAN.
- SIDE WALL SAMPLES WILL BE COLLECTED AT SPOT EXCAVATIONS AT SAME SAMPLING FREQUENCY.



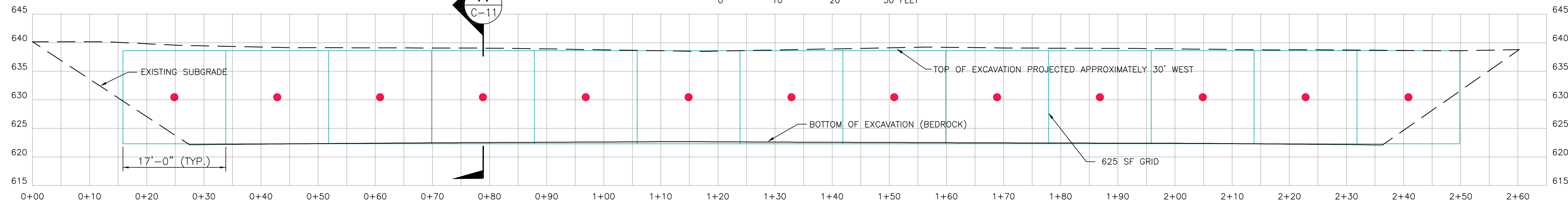
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B	ISSUED FINAL CONTRACT DRAWINGS	4/19/13	M.J.S.



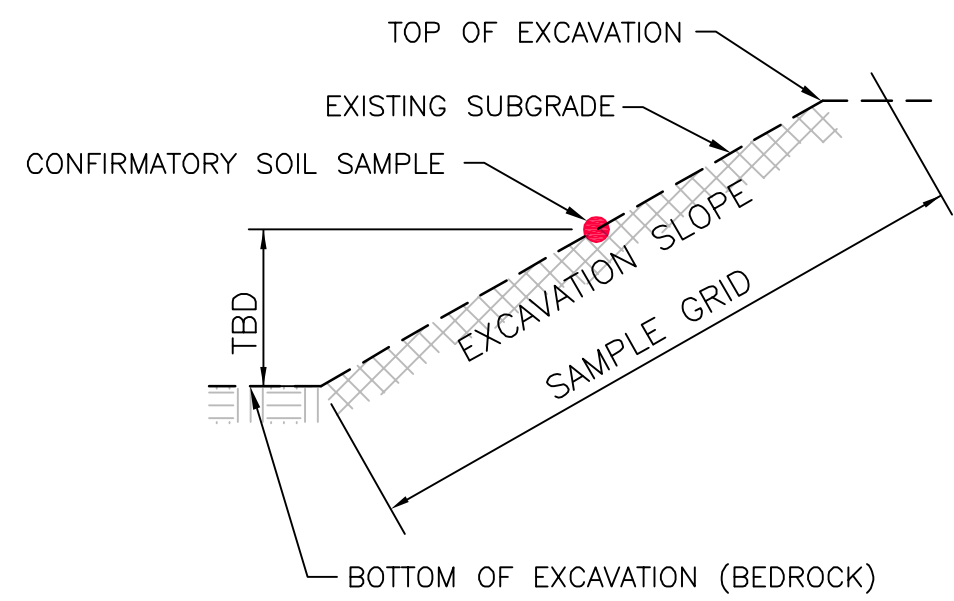
DESIGNED BY: M. Donegan	NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION		
DRAWN BY: G. Jones			
CHECKED BY: M. Sausville	CONFIRMATORY SAMPLING PLAN ALTECH SPECIALTY STEEL CONTRACT NO. D008535 DUNKIRK, NEW YORK		
APPROVED BY: M. Sausville			
DATE: 4/19/13	SCALE: AS SHOWN	DRAWING NO. 134685-22D9	SHEET NO. C-10



WEST PROFILE



EAST PROFILE



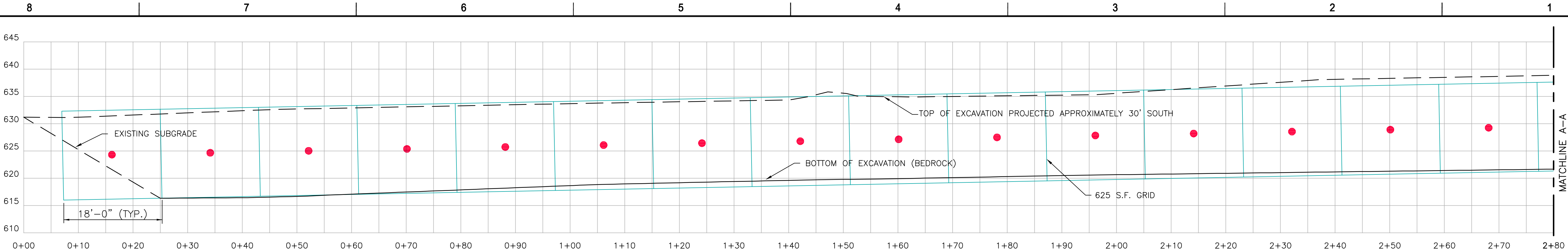
SECTION A C-11 TYPICAL SAMPLE GRID

NOT TO SCALE

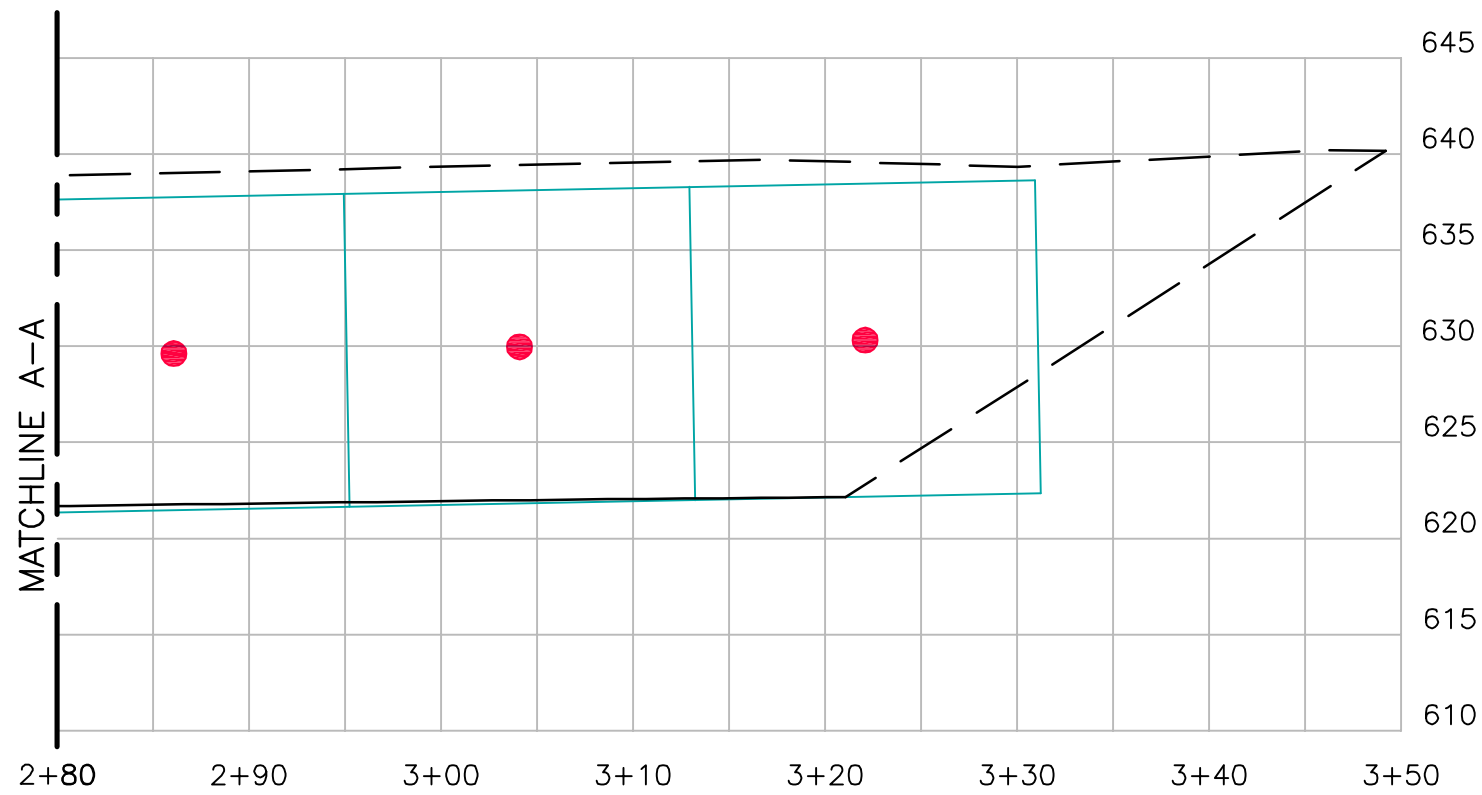
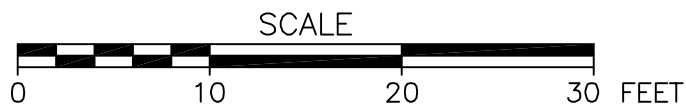
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A	ISSUED FOR DEC DRAFT REVIEW	1/9/13	M.J.S.
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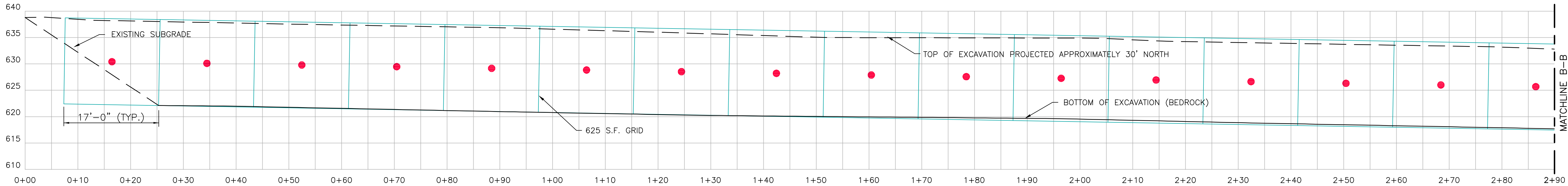
	DESIGNED BY: M. Donegan	NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION		
	DRAWN BY: G. Jones	WEST AND EAST SAMPLING PROFILE		
	CHECKED BY: M. Sausville	ALTECH SPECIALTY STEEL CONTRACT NO. D008535 DUNKIRK, NEW YORK		
	APPROVED BY: M. Sausville	DATE: 4/19/13	SCALE: AS SHOWN	DRAWING NO. 134685-22D10
				SHEET NO. C-11



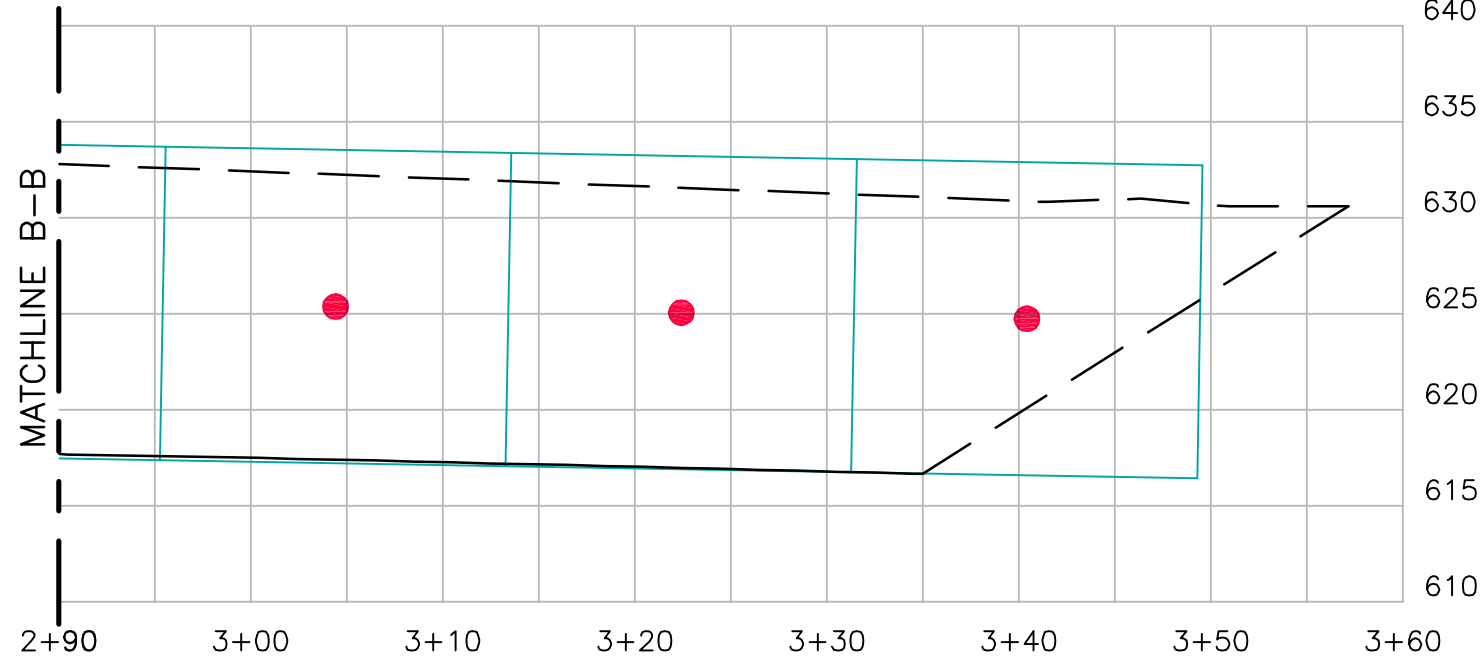
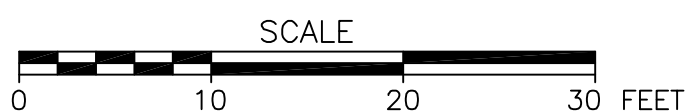
NORTH PROFILE



NORTH PROFILE (CONTIINUED)



SOUTH PROFILE



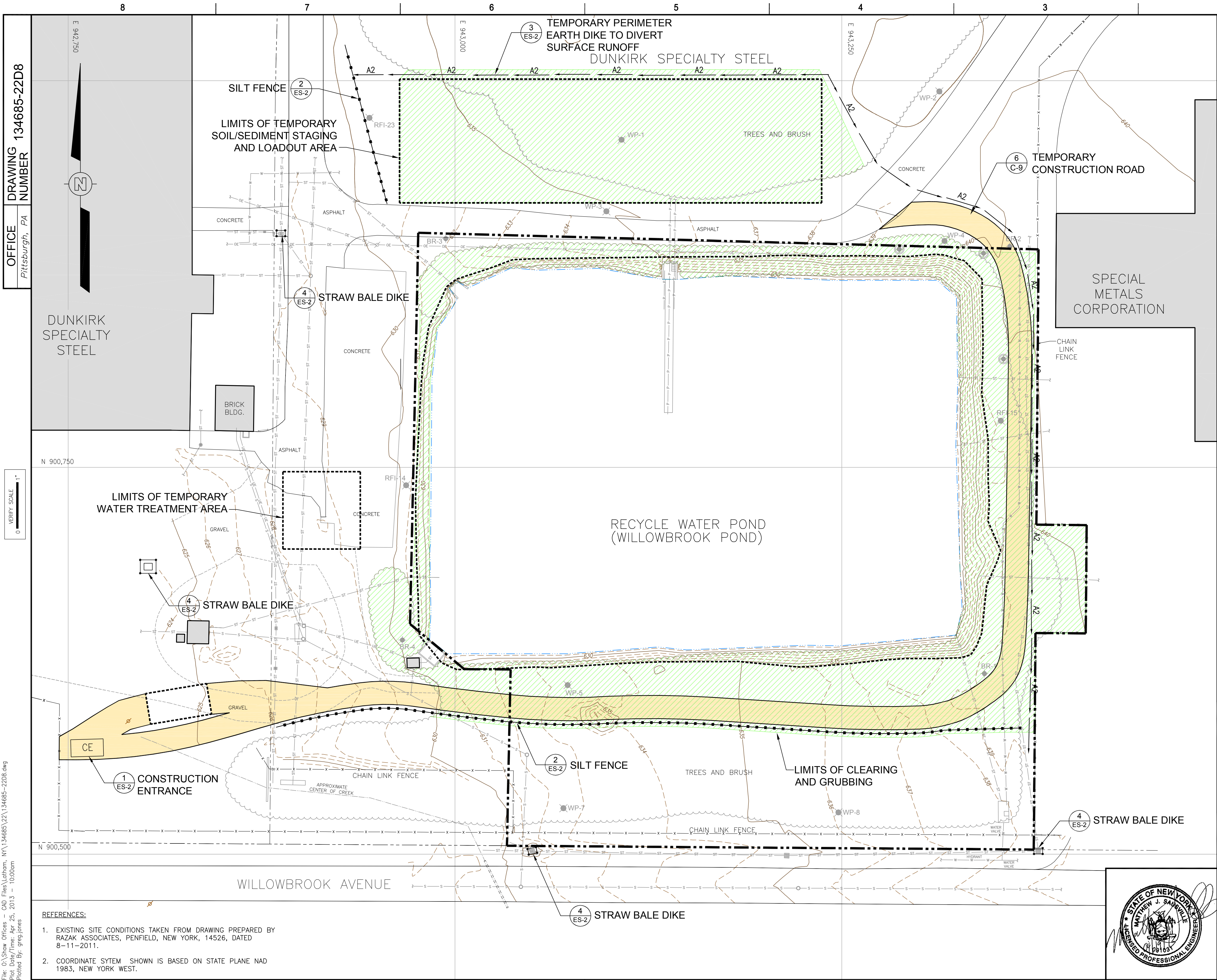
SOUTH PROFILE (CONTIINUED)

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B	ISSUED FINAL CONTRACT DRAWINGS	4/19/13	M.J.S.



DESIGNED BY: <i>M. Donegan</i>	NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION			
DRAWN BY: <i>G. Jones</i>				
CHECKED BY: <i>M. Sausville</i>				
APPROVED BY: <i>M. Sausville</i>	NORTH AND SOUTH SAMPLING PROFILE ALTECH SPECIALTY STEEL CONTRACT NO. D008535 DUNKIRK, NEW YORK			
DATE: 4/19/13	SCALE: AS SHOWN	DRAWING NO. 134685-22D10	SHEET NO. C-12	

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Plotted By: greg.jones



- LEGEND:**
- MONITORING WELL
 - BEDROCK MONITORING WELL
 - WELL POINT
 - BUILDING/STRUCTURE
 - PROPERTY LINE
 - SITE BOUNDARY
 - CONTOUR (1-FOOT)
 - FENCE LINE
 - BRUSH/TREE LINE
 - UTILITY POLE
 - SANITARY MANHOLE
 - CATCH BASIN
 - SANITARY SEWER LINE
 - STORM SEWER LINE
 - OVERHEAD ELECTRIC
 - UNDERGROUND ELECTRIC
 - WATER LINE
 - LIMITS OF CLEARING AND GRUBBING
 - SILT FENCE
 - STRAW BALE DIKE
 - TEMPORARY EARTH DIKE
 - CONSTRUCTION ENTRANCE

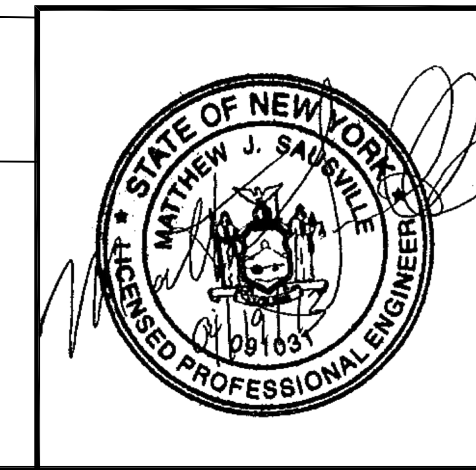
NOTE:
CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND SHALL BE APPROVED BY THE ENGINEER.



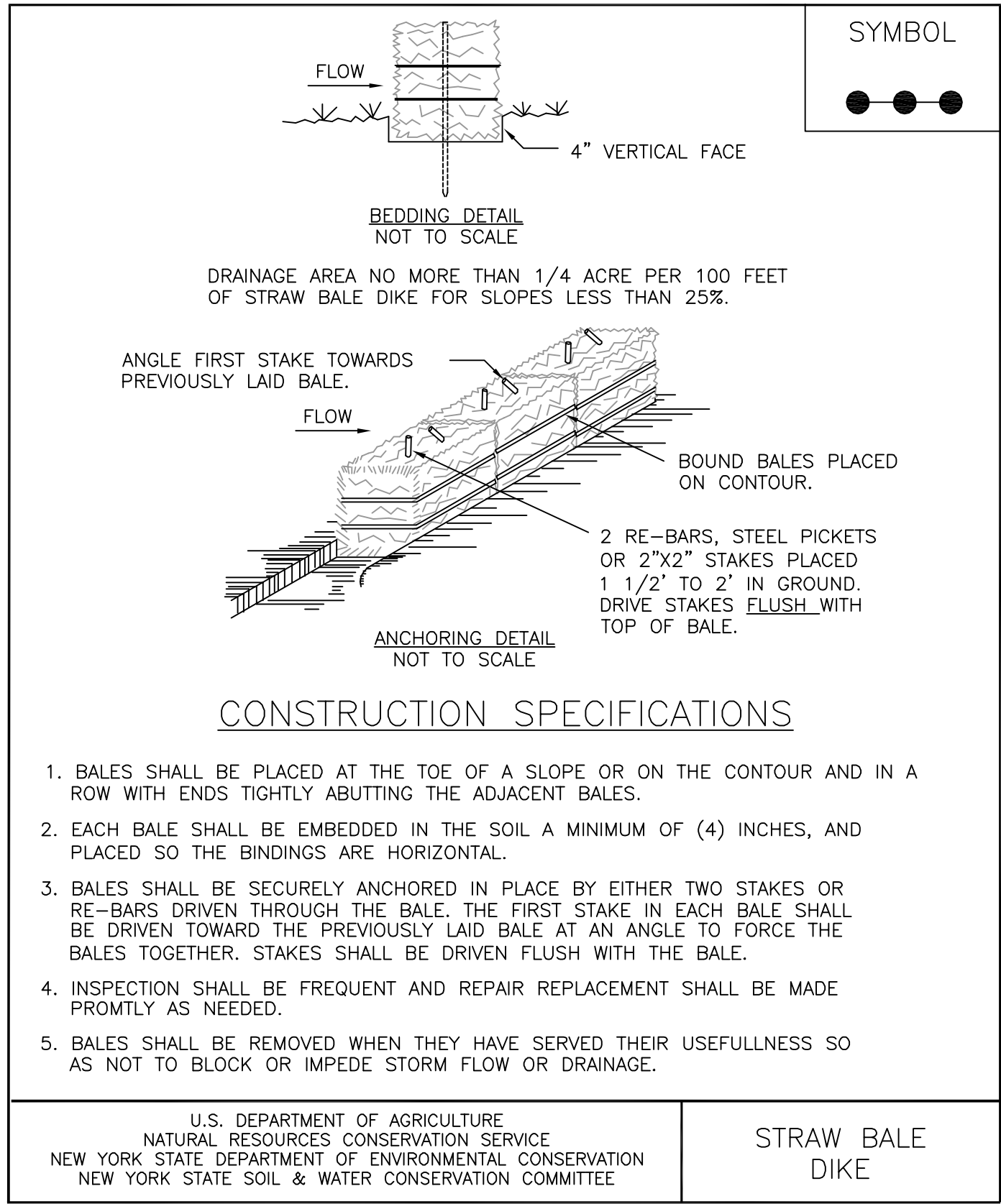
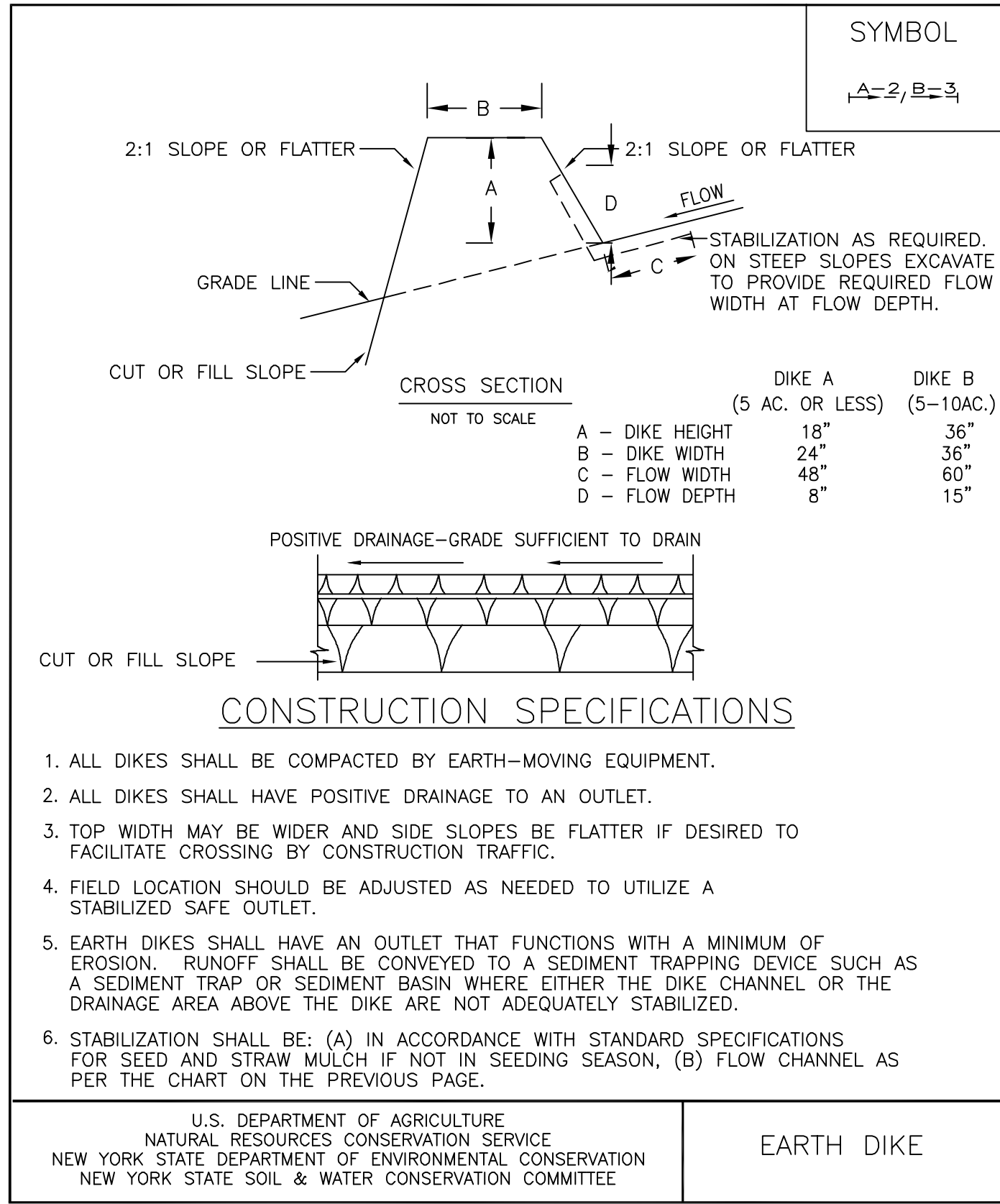
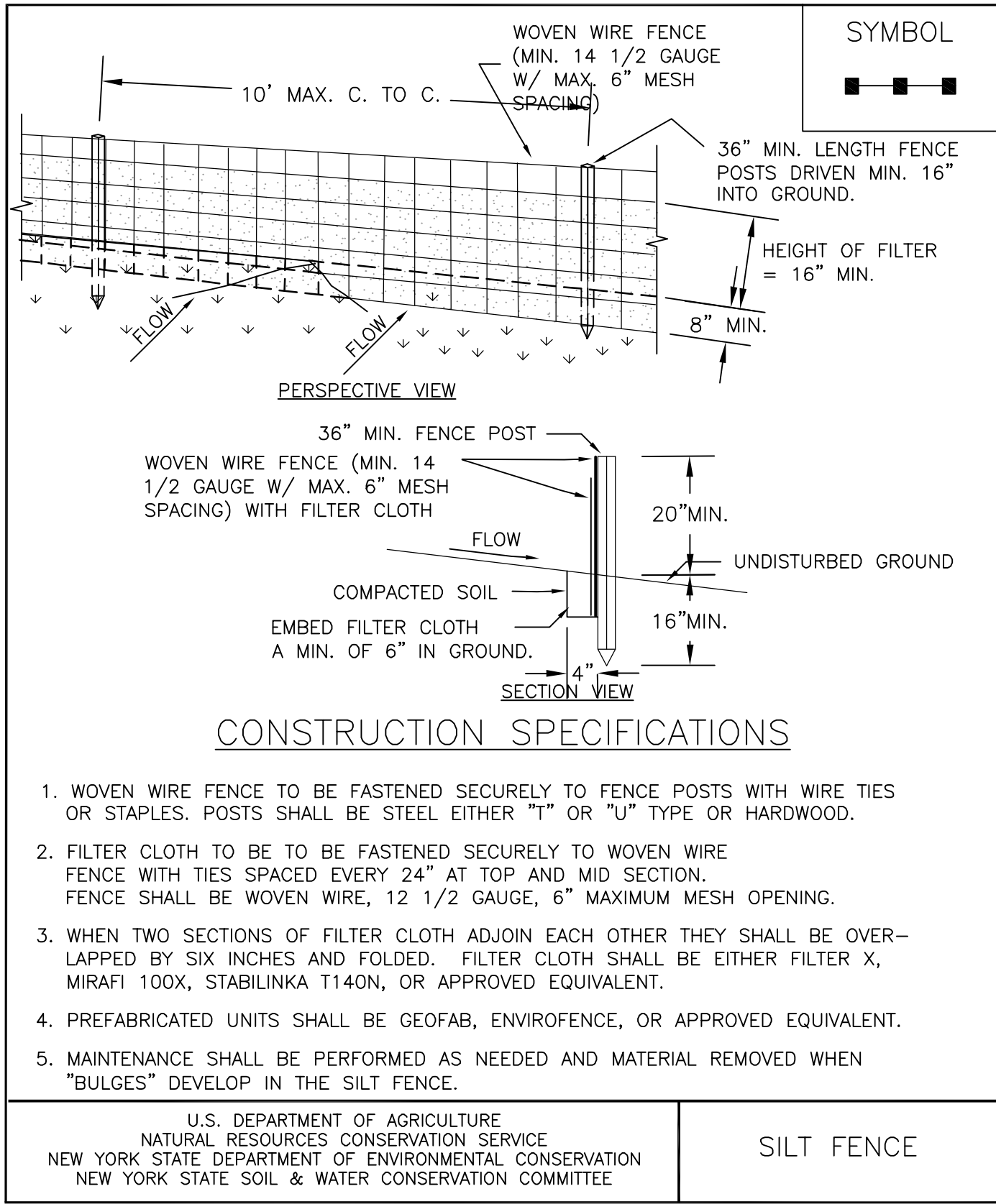
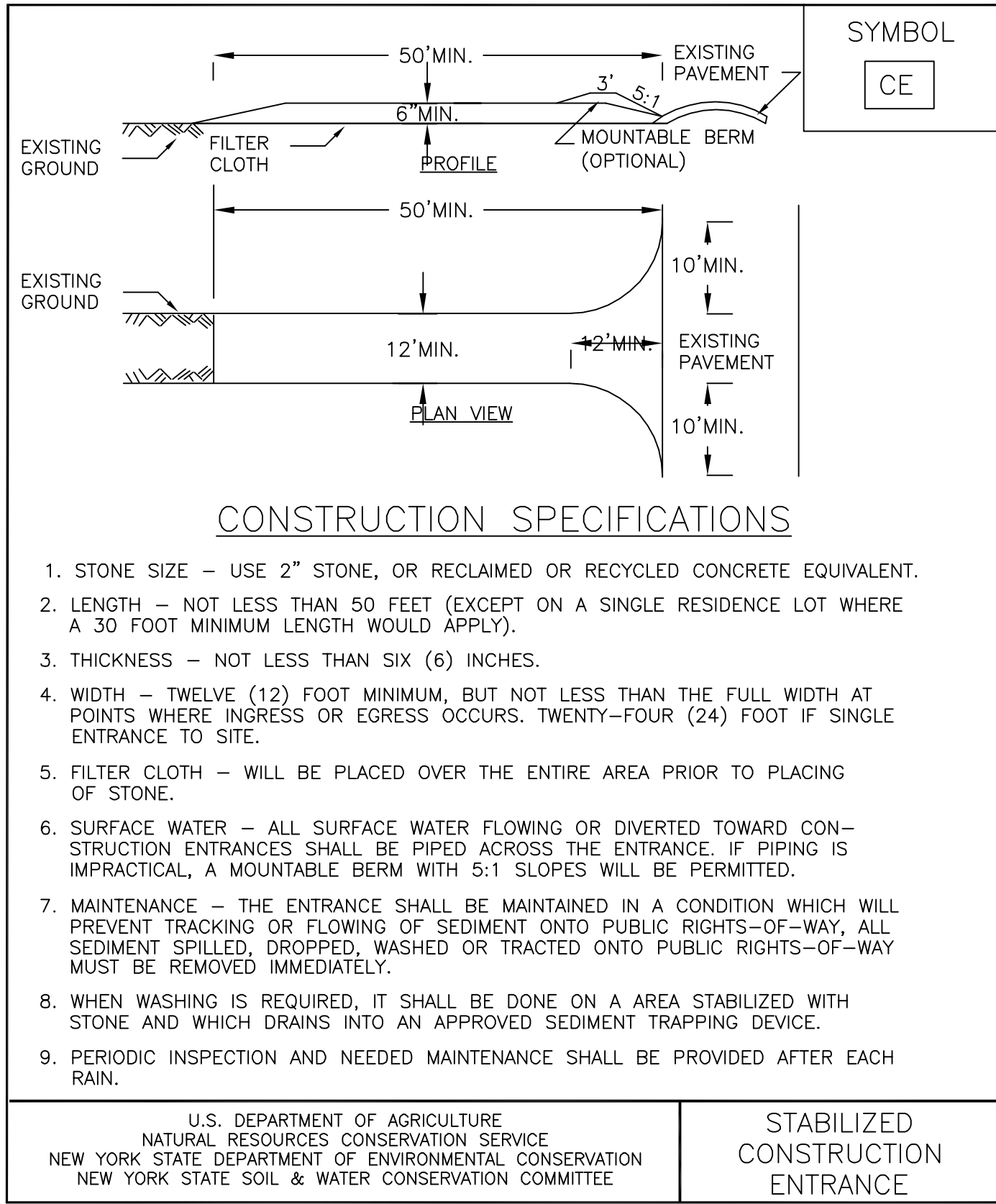
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C	ISSUED FINAL CONTRACT DRAWINGS	4/19/13	M.J.S.



DESIGNED BY: M. Donegan	NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION		
DRAWN BY: A. Smith	EROSION AND SEDIMENT CONTROL PLAN		
CHECKED BY: M. Sausville	ALTECH SPECIALTY STEEL CONTRACT NO. D008535 DUNKIRK, NEW YORK		
APPROVED BY: M. Sausville	DATE: 4/19/13	SCALE: AS SHOWN	DRAWING NO. 134685-22D8 SHEET NO. ES-1

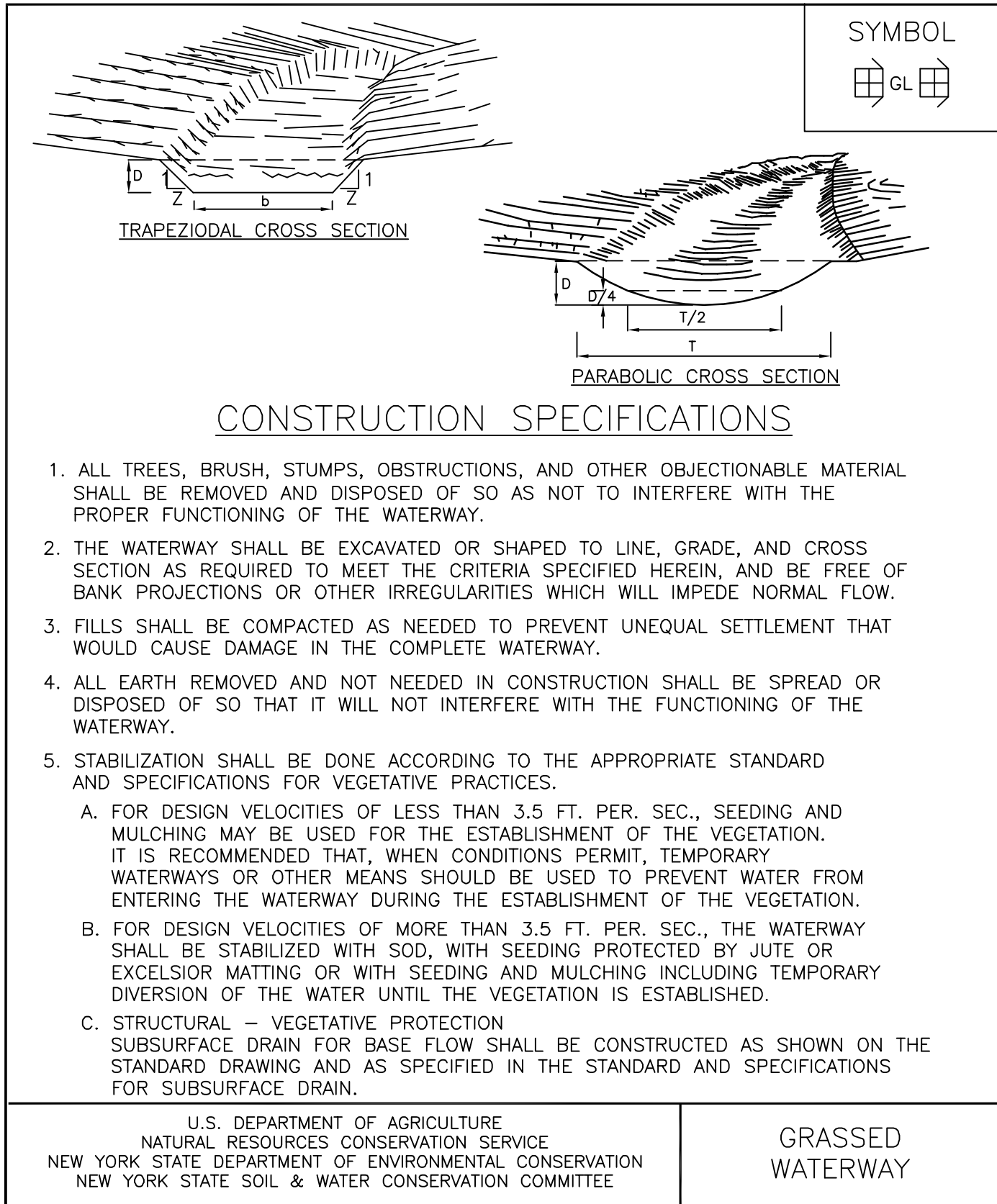


- REFERENCES:**
- EXISTING SITE CONDITIONS TAKEN FROM DRAWING PREPARED BY RAZAK ASSOCIATES, PENFIELD, NEW YORK, 14526, DATED 8-11-2011.
 - COORDINATE SYTEM SHOWN IS BASED ON STATE PLANE NAD 1983, NEW YORK WEST.



DETAIL 1 ES-1 STONE CONSTRUCTION ENTRANCE

SCALE: N.T.S.

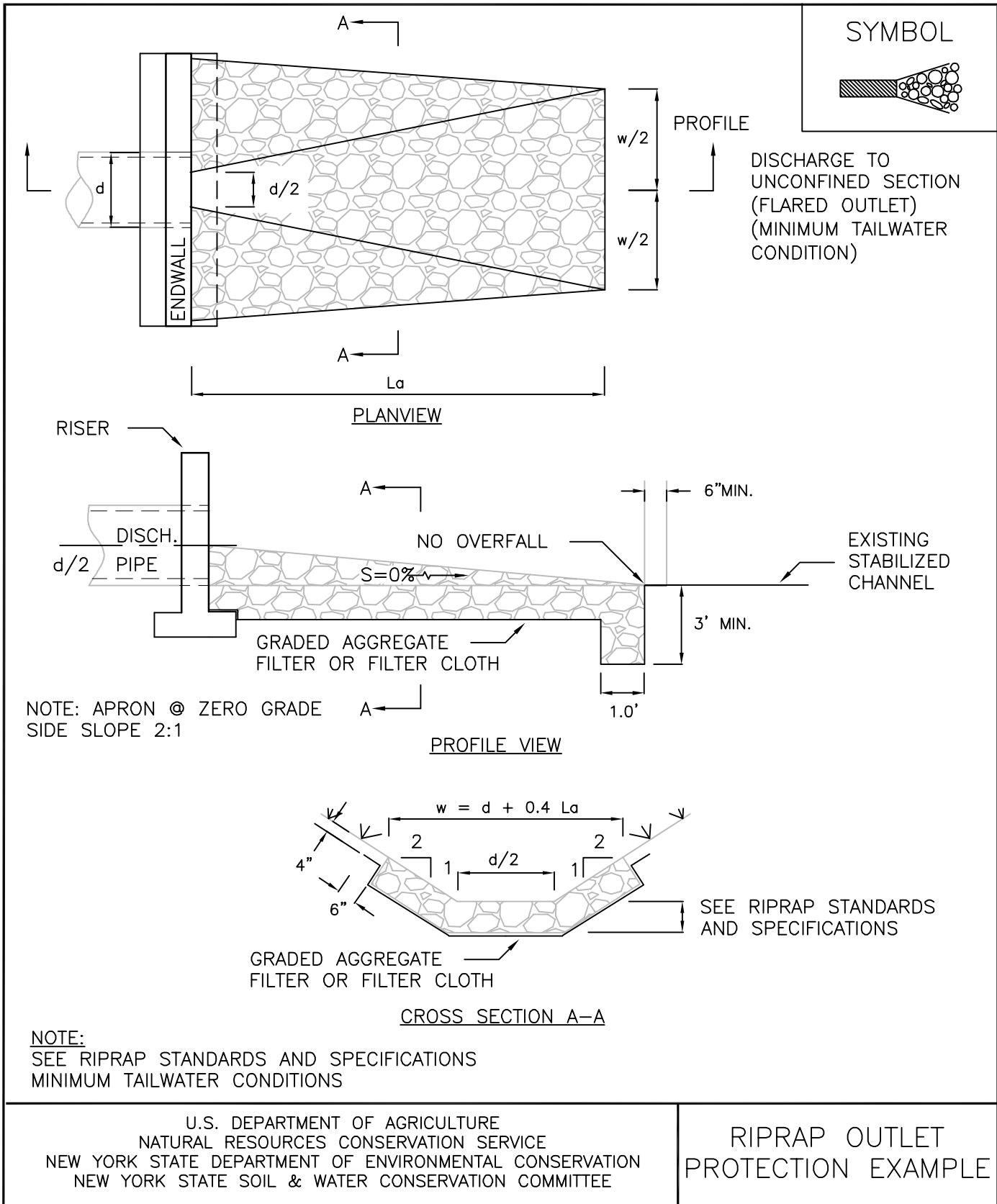


DETAIL 5 C-6 GRASSED WATERWAY

N.T.S.

DETAIL 2 ES-1 SILT FENCE INSTALLATION

N.T.S.



DETAIL 6 C-6 RIPRAP OUTLET PROTECTION

N.T.S.

DETAIL 3 ES-1 PERIMETER EARTH DIKE

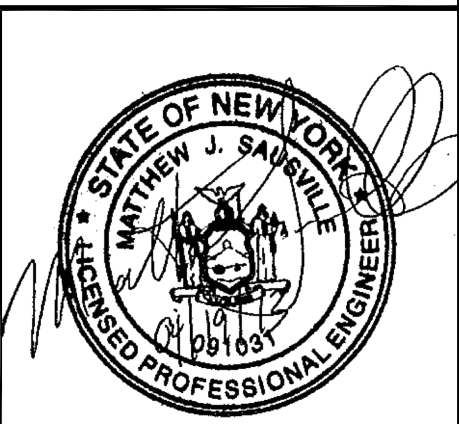
N.T.S.

DETAIL 4 ES-1 STRAW BALE DIKE

N.T.S.

NOTE:
CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND SHALL BE APPROVED BY THE ENGINEER.

REV	DESCRIPTION / ISSUE	DATE	APPROVED
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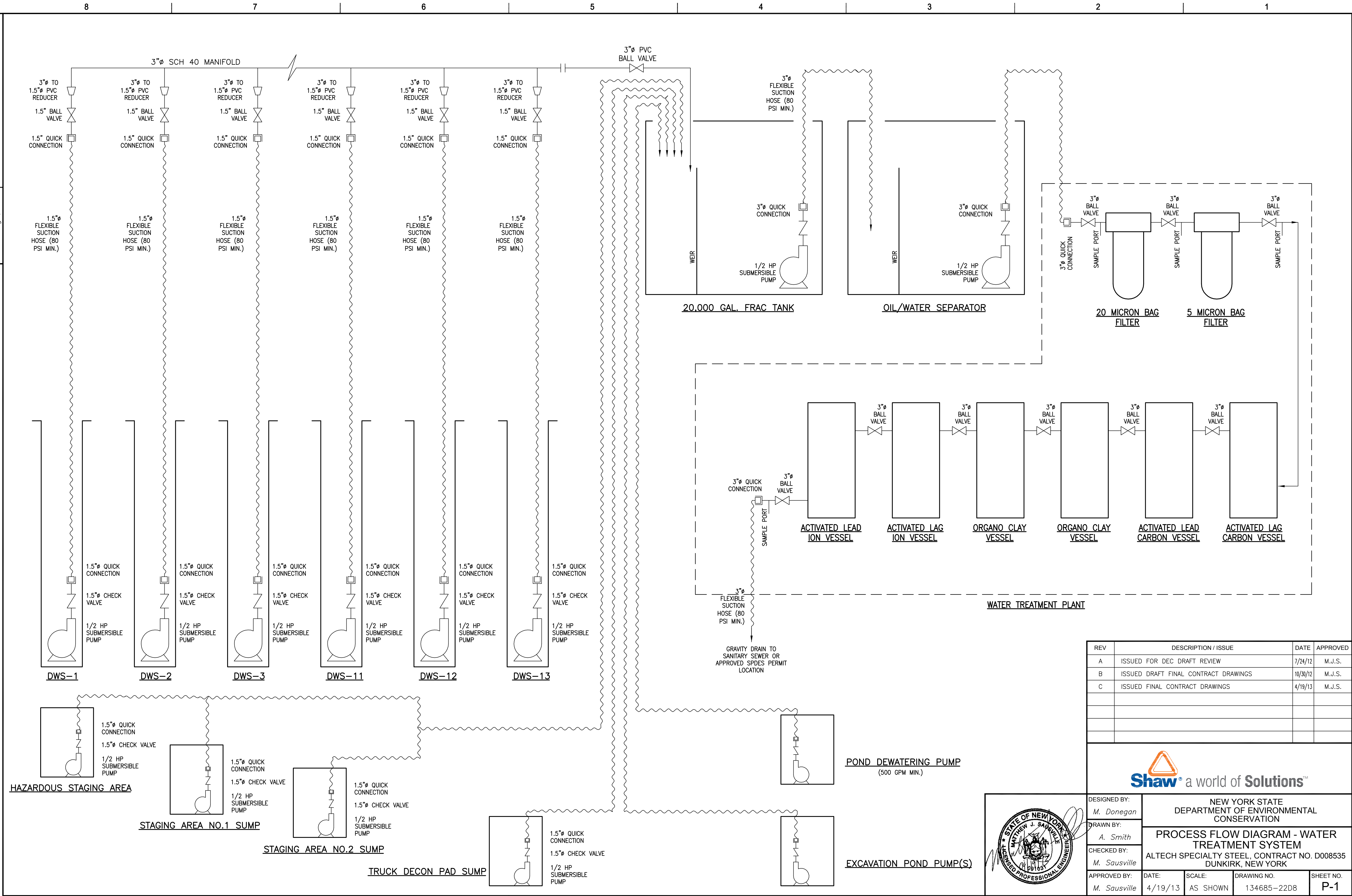


DESIGNED BY: M. Donegan	NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION		
DRAWN BY: A. Smith	EROSION AND SEDIMENT CONTROL DETAILS		
CHECKED BY: M. Sausville	ALTECH SPECIALTY STEEL CONTRACT NO. D008535 DUNKIRK, NEW YORK		
APPROVED BY: M. Sausville	DATE: 4/19/13	SCALE: AS SHOWN	DRAWING NO. 134685-22D8
			SHEET NO. ES-2

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B	ISSUED DRAFT FINAL CONTRACT DRAWINGS	10/30/12	M.J.S.
C	ISSUED FINAL CONTRACT DRAWINGS	4/19/13	M.J.S.



DESIGNED BY: M. Donegan	NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION		
DRAWN BY: A. Smith	PROCESS FLOW DIAGRAM - WATER TREATMENT SYSTEM		
CHECKED BY: M. Sausville	ALTECH SPECIALTY STEEL, CONTRACT NO. D008535 DUNKIRK, NEW YORK		
APPROVED BY: M. Sausville	DATE: 4/19/13	SCALE: AS SHOWN	DRAWING NO. 134685-22D8 SHEET NO. P-1

