



# Department of Environmental Conservation

Division of Environmental Remediation

**Site Name** West Side Corporation Site OU No. 1

**Site Number** 2-41-026

**Location** Jamaica

**County** Queens, New York

## Contract Documents

**Contract No. D004478**

URS Corporation



**Date** June 2004

New York State Department of Environmental Conservation  
GEORGE E. PATAKI, *Governor*      ERIN M. CROTTY, *Commissioner*

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**CONTRACT DRAWINGS BOUND SEPARATELY**



## SECTION I

### *Advertisement and Notice to Bidders*

#### **New York State Department of Environmental Conservation**

Project Name West Side Corp. Site OU1 Remedial Construction, NYS Site Number 2-41-026  
Contract Number D004478

Sealed bids for the West Side Corp. Site OU1 Remedial Construction ("project"), will be received by the New York State Department of Environmental Conservation, Division of Management and Budget Services, Procurement Bureau, 10<sup>th</sup> Floor, 625 Broadway, Albany, New York, 12233-5027, Attn: Donna Pinchbeck, until the time of 1:00 P.M. EST and on the date of July 20, 2004. 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 West Side Corp. Site, Jamaica, Queens County, New York. These include, but are not necessarily limited to, the following:

1. Construction, start-up, and operation of a soil vapor extraction (SVE) system.
2. Construction, start-up and operation of an electrical resistance heating (ERH) system.

The estimated range for this work is: \$ 1,000,000 to \$ 3,000,000.

Drawings, specifications and proposal forms may be purchased for a non-refundable fee of \$49.00 from the Division of Management and Budget Services, Procurement Bureau, 10<sup>th</sup> Floor, 625 Broadway, Albany, New York 12233-5027; Attn: Donna Pinchbeck (Tel: (518) 402-9310). Individual checks for each set shall be made payable to the New York State Department of Environmental Conservation.

Proposals will be accepted only from bidders who purchase contract documents. All proposals must be made on the official proposal form and enclosed in the envelope furnished with the contract documents. Each proposal must be accompanied by a deposit or a bid bond in the amount of 5% of bid amount.

Prospective Bidders are cautioned concerning the use of the Post Office Box address as telegraphic and overnight delivery cannot be sent to Post Office Boxes.

All Bidders must attend a Pre-Bid Conference to discuss special requirements for the contract, to be held on Thursday July 8, 2004 at the site starting at 11:00 A.M., EST 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.

For the purpose of this Notice to Bidders, the Director of the Division of Environmental Remediation, 12<sup>th</sup> Floor, 625 Broadway, Albany, New York, 12233-7011, shall be the Department's designated Representative. Any questions, however, shall be directed to David Chiusano, Project Manager at (518) 402-9813.

Erin M. Crotty  
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** - The form furnished 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 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.

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

**Comptroller** - The Comptroller of the New York State Department of Audit and Control.



**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 Special 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.

**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 Representative** - **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 indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means 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** written notice of bid acceptance and filing by the New York Office of the State Comptroller and stating pertinent information **Contractor** shall comply with.

**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.

**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.

**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 under ground 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 sent by addendum to all persons who have purchased Bidding Documents. 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 which, if issued, will be sent by certified or registered mail with return receipt requested or telegraph, to all purchasers of Bidding Documents at the respective addresses furnished for such purposes. 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, Procurement Bureau, New York State Department of Environmental Conservation, 10<sup>th</sup> Floor, 625 Broadway, Albany, New York 12233-5027, Attn: Donna Pinchbeck.

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 in its plan sales ledger as having purchased Bidding Documents from **Department**. Persons or firms which obtain Bidding Documents from sources other than **Department** bear the sole responsibility for obtaining any Addenda issued for the Project.

**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 I 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 Bidders who have purchased Contract Documents from **Department**.

#### ***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.

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 to **Department**:
  - Form of Bid filled out
  - Bid Bond or Certified Check
  - Non-Collusion Certificate
  - MacBride Fair Employment Principles (signed)
- b) The following items shall be submitted 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 and the additional \$4 million (for a total of \$5 million) of Pollution Liability insurance if required by the **Department** on a specific project basis. If the Bidder is unable to obtain the \$4 million of site specific Pollution Liability insurance, **Department** requires letters from three (3) sureties stating that the additional Pollution Liability insurance is unavailable.
  - 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
  - NYS Uniform Contracting Questionnaire (completed) or affidavit of no change (if appropriate)
  - Policy Statement and M/WBE Workplan
  - 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 by the apparent low Bidder within **14 days** from the date of the Notice of Intent to Award letter from **Department**:
- Executed Agreement and Rider to Appendix B (six copies with original signatures)
  - Performance Bond with Power of Attorney & Surety Financial Statement (original and five copies)
  - Labor & Materials Bond with Power of Attorney & Surety Financial Statement (original & five copies)
  - Bid Breakdown of Items (original)
  - Certificates of Insurance (original and five copies)

#### ***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 **New York State Uniform Contracting Questionnaire**, which is included in Section V, "Bid Forms and Attachments" must be completed and submitted to **Department** by the apparent low Bidder within five (5) days after the apparent low Bidder has been so notified. The completed questionnaire or the affidavit of no change (if appropriate) must be addressed to:

NYS Department of Environmental Conservation  
Division of Management and Budget Services  
Procurement Bureau, 10<sup>th</sup> Floor  
625 Broadway  
Albany, NY 12233-5027, Attn: Donna Pinchbeck

The envelope should be clearly marked "NYS Uniform Contracting Questionnaire." 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 Uniform Contracting 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 15 of 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 7 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 responsive, 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. 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 selected Bidder shall be required to make good-faith efforts to subcontract at least the percentage stipulated in Section IV, "Supplementary Bidding Information and Requirements", of the contract price to NYS Certified Minority Business Enterprise(s) (MBE) and Women Business Enterprise(s) (WBE), respectively.

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."

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](http://www.empire.state.ny.us).

The new system will be available seven (7) days a week, 7:00 a.m. to 10:00 p.m. and the information will be updated daily. 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 Vicente Alfonso at DEC's Procurement Bureau, M/WBE/EEO 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 IV, "Supplementary Bidding Information and Requirements" 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**.

## SECTION IV

### ***Supplementary Bidding Information and Requirements***

#### ***ARTICLE 1 - Location and Description of Project***

The Site Number of this project is 2-41-026. The Project is located in Jamaica, Queens County. Access to the site is from 180<sup>th</sup> Street. Going north on the Van Wyck Expressway from JFK, take Liberty Avenue east and then south on 180<sup>th</sup>. The site is just south of 106 Road.

This Project includes the following:

1. Construction, start-up, and operation of soil vapor extraction (SVE) system
2. Construction start-up, and operation of an electrical resistance heating (ERH) system.

#### ***ARTICLE 2 - Department Representatives***

NAME	ADDRESS
Dale Desnoyers	625 Broadway, 12 <sup>th</sup> Floor , Designated Representative, Albany, New York 12233-7011
Robert Knizek	, Section Chief, 625 Broadway, Albany, NY 12233-7013
David Chiusano	, Project Manager, 625 Broadway, Albany, NY 12233-7013
<u>To Be Determined</u>	, Project Field Representative, _____

#### ***ARTICLE 3 - Pre-Bid Conference***

A pre-Bid conference will be held on Thursday, July 8, 2004, at the site, at 11:00 AM 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***

#### ***ARTICLE 5 - Other Available Documents***

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

1. "Remedial Investigation-West Side Corporation Site, No. 2-41-026", TAMS Consultants, Inc. and GZA Environmental, July 2000.
2. "Feasibility Study – West Side Corporation Site", TAMS Consultants, Inc. and GZA GeoEnvironmental, July 2000.
3. "SVE Pilot Test Report", URS Corporation, December 2001.
4. "Revised In-Situ Thermal Treatment Evaluation", URS Corporation, August 2002.
5. "Record of Decision", NYSDEC, July 2000.





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107-10 180th St

Jamaica NY

US

**Notes:**



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6. "Design Analysis Report", URS Corporation, March 2003.

#### ***ARTICLE 6 - M/WBE-EEO Utilization Plan***

- a) The M/WBE-EEO Utilization Plan shall be sent directly to:

NYS Department of Environmental Conservation  
Division of Management and Budget Services  
Procurement Bureau, 10<sup>th</sup> Floor  
Minority and Women's Business Programs Unit  
625 Broadway  
Albany, New York 12233-5028  
**ATTENTION:** Vicente Alfonso

- b) The selected bidder shall be required to make good faith efforts to subcontract at least 21.5 percent and 13.7 percent of the contract price to NYS Certified M/WBEs, respectively.
- c) **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 for at least 10 percent of, and women for at least 10 percent of, the work force hours required for the completion of the project.

#### ***ARTICLE 7 - Subcontracting***

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

#### ***ARTICLE 8 - Type of Schedule***

Contractor shall provide bar type of schedule as described in Section X, Spec 00001 - Progress Schedule.

#### ***ARTICLE 9 - 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 31<sup>st</sup> of each year and are in effect July 1<sup>st</sup> through June 20<sup>th</sup>. New determinations will supersede the original schedule or any prior issued annual determination. Any rate change from a previously issued determination becomes effective July 1<sup>st</sup>, regardless of whether the new determination has been received by the **Contractor**."



## SECTION V

### ***ARTICLE 1(a) - Contract Bid Form and Acknowledgment for Construction of***

#### **A SOIL VAPOR EXTRACTION SYSTEM AND AN ELECTRICAL RESISTANCE HEATING TREATMENT SYSTEM AT THE WEST SIDE CORPORATION SITE**

***Contract Number*** D004478, ***NYS Site Number*** 2-41-026

#### **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:

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Fax Number (        ) \_\_\_\_\_ - \_\_\_\_\_

**Bid**  
**New York State Department of Environmental Conservation**  
**West Side Corp. Site OUI Remedial Construction**  
**Project Number D004478, NYS Site Number 2-41-026**

**UNIT PRICE ITEMS**

<b>Payment Item Number</b>	<b>Description</b>	<b>Estimated Quantity</b>	<b>Unit</b>	<b>Unit or Lump Sum Price</b>		<b>Total Amount (\$)</b>
				<b>Words</b>	<b>Figures</b>	
UC-1	Offsite Disposal of Non-Hazardous Soil	64	Ton			
UC-2	Offsite Disposal of Hazardous Soil	10	Ton			
UC-3	Soil Vapor Extraction Well	15	Each			
UC-4	Additional Soil Vapor Extraction Well	2	Each			
UC-5	Vacuum Monitoring Point	10	Each			
UC-6	4-Inch Diameter Below Grade SVE Pipe	630	LF			
UC-7	4-Inch Diameter Above Grade SVE Pipe	260	LF			
UC-8	6-Inch Diameter Above Grade SVE Pipe	500	LF			
UC-9	8-Inch Diameter Above Grade SVE Pipe	100	LF			
UC-10	SVE System Steady State Operation Following Start-up	6	Month			
UC-11	Temperature Monitoring Point	13	Each			
UC-12	Shallow Groundwater Monitoring Well	4	Each			
<b>SUBTOTAL for Page V-2a</b>						

Contractor Authorized Representative \_\_\_\_\_ Contract Name \_\_\_\_\_ Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
 \US0212K3487\OneWorldJobs\11172744.00000\WORD\Word Perfect\West Side Corp-Redlined\Bid.doc  
 11/98  
 V-2a

**Bid**  
**New York State Department of Environmental Conservation**  
**West Side Corp. Site OU1 Remedial Construction**  
**Project Number D004478, NYS Site Number 2-41-026**

<b>Payment Item Number</b>	<b>Description</b>	<b>Estimated Quantity</b>	<b>Unit</b>	<b>Unit or Lump Sum Price</b>		<b>Total Amount (\$)</b>
				<b>Words</b>	<b>Figures</b>	
UC-13	Intermediate Groundwater Monitoring Well	4	Each			
UC-14	Deep Groundwater Monitoring Well Installed to Clay Layer	2	Each			
UC-15	ERH System Steady-State Operation Phase One	91	Calendar Day			
UC-16	Electricity Allowance for ERH Steady-State Operation Phase One		Kilowatt-hour			
UC-17	ERH System Standby Phase	30	Calendar Day			
UC-18	Aqueous Phase Carbon for Start-up and Steady-State Operation Phase One	400	LB			
UC-19	Fencing	500	LF			
UC-20	Health and Safety	185	Person per Work Day			
UC-21	Post Remediation Soil Sampling	25	Sample			
UC-22	SVE Extraction Well Sampling During Startup	30	Each			
<b>SUBTOTAL for Page V-2b</b>						

Contractor Authorized Representative

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11/98

Contract Name

V-2b

Signed:

Date:

**Bid**  
**New York State Department of Environmental Conservation**  
**West Side Corp. Site OU1 Remedial Construction**  
**Project Number D004478, NYS Site Number 2-41-026**

<b>Payment Item Number</b>	<b>Description</b>	<b>Estimated Quantity</b>	<b>Unit</b>	<b>Unit or Lump Sum Price</b>		<b>Total Amount (\$)</b>
				<b>Words</b>	<b>Figures</b>	
UC-23	SVE Extraction Well Sampling During Operation	90	Each			
UC-24	SVE Catalytic Oxidizer Inlet Sampling During Startup	2	Each			
UC-25	SVE Catalytic Oxidizer Inlet Sampling During Operation	6	Each			
UC-26	SVE Catalytic Oxidizer Outlet Sampling During Startup	30	Each			
UC-27	SVE Catalytic Oxidizer Outlet Sampling During Operation	6	Each			
UC-28	ERH Condensed Vapor Sampling During Startup	32	Each			
UC-29	ERH Condensed Vapor Sampling During Steady State Operation Phase One	13	Each			
UC-30	ERH Condensate Sampling During Startup	32	Each			
<b>SUBTOTAL for Page V-2c</b>						

Contractor Authorized Representative \_\_\_\_\_ Contract Name \_\_\_\_\_ Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
 11/98 V-2c  
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**Bid**  
**New York State Department of Environmental Conservation**  
**West Side Corp. Site OUI Remedial Construction**  
**Project Number D004478, NYS Site Number 2-41-026**

<b>Payment Item Number</b>	<b>Description</b>	<b>Estimated Quantity</b>	<b>Unit</b>	<b>Unit or Lump Sum Price</b>		<b>Total Amount (\$)</b>
				<b>Words</b>	<b>Figures</b>	
UC-31	ERH Condensate Sampling During Steady-State Operation Phase One	13	Each			
UC-32	ERH Discharge Sampling During Startup	9	Each			
UC-33	ERH Discharge Sampling During Steady-State Operation Phase One	13	Each			
UC-34	ERH Catalytic Oxidizer Outlet Sampling During Startup	32	Each			
UC-35	ERH Catalytic Oxidizer Outlet Sampling During Steady-State Operation Phase One	7	Each			
UC-36	Groundwater Sampling	134	Each			
UC-37	Soil Borings	6	Each			
UC-38	ERH System Steady-State Operation Phase Two	63	Calendar Day			
UC-39	Electricity Allowance for ERH Steady-State Operation - Phase Two		Kilowatt-hour			
<b>SUBTOTAL for Page V-2d</b>						

Contractor Authorized Representative \_\_\_\_\_ Contract Name \_\_\_\_\_ Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
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 11/98  
 V-2d



**Bid**  
**New York State Department of Environmental Conservation**  
**West Side Corp. Site OU1 Remedial Construction**  
**Project Number D004478, NYS Site Number 2-41-026**

Payment Item Number	Description	Estimated Quantity	Unit	Unit or Lump Sum Price		Total Amount (\$)
				Words	Figures	
UC-40	Aqueous Phase Carbon Restart and Steady-State Operation Phase Two	3,000	Lbs			
UC-41	ERH Condensed Vapor Sampling During Restart	32	Each			
UC-42	ERH Condensed Vapor Sampling During Steady-State Operation Phase Two	8	Each			
UC-43	ERH Condensate Sampling During Restart	32	Each			
UC-44	ERH Condensate Sampling During Steady-State Operation Phase Two	8	Each			
UC-45	ERH Discharge Sampling During Restart	9	Each			
UC-46	ERH Discharge Sampling During Steady-State Operation Phase Two	8	Each			
UC-47	ERH Catalytic Oxidizer Outlet Sampling During Restart	32	Each			
UC-48	ERH Catalytic Oxidizer Outlet Sampling During Steady-State Operation Phase Two	4	Each			
UC-49	SVE Catalytic Oxidizer Outlet HCl Sampling During Startup	15	Each			
UC-50	SVE Catalytic Oxidizer Outlet HCl Sampling During Operation	26	Each			

Contractor Authorized Representative

Contract Name

Signed:

Date:

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11/98

V-2e

**Bid**  
**New York State Department of Environmental Conservation**  
**West Side Corp. Site OU1 Remedial Construction**  
**Project Number D004478, NYS Site Number 2-41-026**

<b>Payment Item Number</b>	<b>Description</b>	<b>Estimated Quantity</b>	<b>Unit</b>	<b>Unit or Lump Sum Price</b>		<b>Total Amount (\$)</b>
				<b>Words</b>	<b>Figures</b>	
UC-51	ERH Catalytic Oxidizer Outlet HCl Sampling During Startup	32	Each			
UC-52	ERH Catalytic Oxidizer Outlet HCl Sampling During Steady-State Operation Phase One	13	Each			
UC-53	ERH Catalytic Oxidizer Outlet HCl Sampling During Restart	32	Each			
UC-54	ERH Catalytic Oxidizer Outlet HCl Sampling During Steady-State Operation Phase Two	8	Each			
<b>SUBTOTAL for Phase V-2e</b>						

Contractor Authorized Representative

Contract Name

Signed:

Date:

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11/98

V-2f

**Bid**  
**New York State Department of Environmental Conservation**  
**West Side Corp. Site OUI Remedial Construction**  
**Project Number D004478, NYS Site Number 2-41-026**

**LUMP SUM ITEMS**

<b>Payment Item Number</b>	<b>Description</b>	<b>Estimated Quantity</b>	<b>Unit or Lump Sum Price</b>		<b>Total Amount (\$)</b>
			<b>Words</b>	<b>Figures</b>	
LS-1	General (Limited to 5% of Grand Total Bid)	1			
LS-2	Site Preparation (Limited to 5% of Grand Total Bid)	1			
LS-3	Site Facilities and Services (Limited to 5% of Grand Total Bid)	1			
LS-4	Site Restoration	1			
LS-5	Soil Vapor Extraction System Installation and Startup Operation	1			
LS-6	Electrical Resistance Heating System	1			
LS-7	Electrode/Vapor Recovery Well Installation	1			
LS-8	Electrical Resistance Heating System Piping	1			
LS-9	Electrical Resistance Heating Start-up	1			
LS-10	Electrical Resistance Heating System Restart	1			
<b>SUBTOTAL for Page V-3a</b>					

Contractor Authorized Representative \_\_\_\_\_ Contract Name \_\_\_\_\_ Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
 V-3a  
 11/98

**Bid**  
**New York State Department of Environmental Conservation**  
**West Side Corp. Site OUI Remedial Construction**  
**Project Number D004478, NYS Site Number 2-41-026**

Payment Item Number	Description	Estimated Quantity	Unit or Lump Sum Price		Total Amount (\$)
			Words	Figures	
LS-11	Decommission Electrical Resistance Heating System	1			
LS-12	Sewer Discharge Connection	1			
LS-13	Electrical	1			
LS-14	Utility Allowance	1			
LS-15	Subsurface Depressurization System	1			
Subtotal for Page V-3b					

**Grand Total Bid:** \$ \_\_\_\_\_  
 (Total Pages V-2a through V-3b) (Price in figures)

Contractor Authorized Representative \_\_\_\_\_ Contract Name \_\_\_\_\_ Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
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 11/98 V-3b

**Bid**  
**New York State Department of Environmental Conservation**  
**West Side Corp. Site OUI Remedial Construction**  
**Project Number D004478, NYS Site Number 2-41-026**

Item No.	Item Description	Unit	Estimated Quantity	Unit or Lump Sum Price		Total Amount (\$)
				Words	Figures	
	Pollution Liability Insurance	LS	1			
	<p>This item is not to be calculated in the base Bid for the project. Contractor is referred to Article 4 of the General Conditions in the Contract Documents. The limits for Pollution Liability Insurance will be the same as defined in Article 4 of the General Conditions. After opening of bids, Department will determine if it is in Department's best interest to have Contractor obtain an additional \$4,000,000 Pollution Liability Insurance on a site specific basis, and if so, Contractor will be paid separately at the actual documented cost to obtain this additional insurance. The Bidder is required to fill in the above price if it can obtain site-specific Pollution Liability Insurance. This Bid amount will be the upper limit for payment of this item. The Department is to be listed on the Bidder's Company Policy as an additional insured at no additional cost to the Department.</p>					

Contract Authorized Representative

Contract 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*

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(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

***Bidder's/Proposer's Certification*****Non-Collusive Bidding and Nondiscrimination in Employment in Northern Ireland  
MacBride Fair Employment Principles and State Ethics Law Provision**

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

***A) Non-Collusion State Finance Law §139-d***

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

***B) Macbride Fair Employment Principles State Finance Law §165(5)***

- 1) It or any individual or legal entity in which the bidder holds a 10% or greater ownership interest, or any individual or legal entity that holds a 10% or greater ownership in the bidder, 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 nondiscrimination in employment and freedom of workplace opportunity regarding such operations in Northern Ireland, and shall permit independent monitoring of their compliance with such Principles.

Yes \_\_\_\_\_ or No \_\_\_\_\_ (check answer)

***C) State Ethics Law Provision***

By submittal of this bid, the undersigned hereby certifies, for and on behalf of the bidder, that he is familiar with the following provisions of the State Ethics Law provisions applicable to post employment restrictions affecting former state employees: POL §73(8)(a)(i) the two year bar, 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, N.Y. 12207: telephone #1-800-87-ETHICS.)

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

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Print Name and Title



***Bid Security***

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

**ARTICLE 1(e) - 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

**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

(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.

Seal

\_\_\_\_\_  
 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

***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 D004478

NYS Site Number 2-41-026

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) - NYS Directory of Certified Minority and Women-Owned Business***

The New York State Directory of Certified Minority and Women-Owned Business Enterprises has been developed to assist public and private purchases of goods and services in locating and using bonafide minority and women-owned business as defined in accordance with Article 15-A of the Executive Law and Article 4(a) of the Economic Development Law.

### ***M/WBE Directory on the Internet***

Empire State Development has put the Minority and Women's Business Development Directory on the Internet. The Internet address is [www.empire.state.ny.us](http://www.empire.state.ny.us), just follow the links to the M/WBE Directory.

The new system will be available seven (7) days a week, 7:00 a.m. to 10:00 p.m. and the information will be updated daily. 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.

## ***M/WBE-EEO Opportunity Program Workplan***

### **Policy Statement**

The \_\_\_\_\_ commits to carrying out the intent of the New York State Executive Law, Article 15-A which assures the meaningful participation of minority and women's business enterprises in contracting and the meaningful participation of minorities and women in the workforce on activities financed by public funds.

### **Minority Business Officer**

\_\_\_\_\_ is designated as the Minority Business Enterprise Officer  
(Name of Designated officer)  
responsible for administering the Minority and Women's Business-Equal Employment Opportunity (M/WBE-EEO) program.

### **M/WBE Contract Goals**

21.5 % Minority Business Enterprise Participation

13.7 % Women's Business Enterprise Participation

### **EEO Contract Goals**

10%      Minority Labor Force Participation

10%      Female Labor Force Participation

\_\_\_\_\_  
(Authorized Representative)

Title: \_\_\_\_\_

Date: \_\_\_\_\_



**M/WBE-EEO WORKPLAN**  
**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION**

Grantee			Project Number													
Address		City		Zip Code												
Authorized Representative			Authorized Signature													
Address	City	Zip Code	Phone No.													
Minority Business Enterprise Officer			Fax No.													
<p>Project Description (list separate contracts &amp; estimates)</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 25%;">Contract No.</th> <th style="width: 50%;">Description</th> <th style="width: 25%;">Estimate</th> </tr> </thead> <tbody> <tr><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>_____</td><td>_____</td><td>_____</td></tr> </tbody> </table>					Contract No.	Description	Estimate	_____	_____	_____	_____	_____	_____	_____	_____	_____
Contract No.	Description	Estimate														
_____	_____	_____														
_____	_____	_____														
_____	_____	_____														

**PROJECTED EEO AND M/WBE CONTRACT SUMMARY**

	%	Amount		%	No./Employ
1. Total Project Dollar Value			6. Total Employees		
2. State Share			7. Total Minority Employees/Goal		
3. MBE Project Goal			8. Total Female Employees/Goal		
4. WBE Project Goal			9. EEO Total Combined		
5. M/WBE Totals Combined					

**OFFICE OF MINORITY & WOMEN'S BUSINESS PROGRAMS USE ONLY**

Proposed Goals		Date Approved	Date Disapproved	Initials
MBE (%)	EEO-Minorities (%)			
WBE (%)	EEO-Women (%)			

Number/Types of Contracts	Contract Breakdown	Amount

**SAMPLE**

Number/Types of contracts	Contract Breakdown	Amount
<u>General Construct.</u> (Contract No. 1)	Paving	\$150,000
	Demolition	30,000
	Paving	200,000
	Masonry	260,000
	Miscellaneous Metals	50,000
	Glazing	3,000
	Excavation and Backfill	210,000
	Fencing	12,000
	Concrete Finishing	20,000
	Reinforcing Steel	240,000
	Roofing	658,000
	Waterproofing	30,000
		<b>\$1,273,000</b>
<u>Electrical</u> (Contract No. 2)	Underground Duct Banks	110,000
	Equipment Supply	260,000
	Lightening Protection	20,000
		<b>390,000</b>
<u>H.V.A.C.</u> (Contract No. 3)	Electrical Wiring	10,000
	Ductwork	45,000
	Controls	25,000
	Equipment Supply	60,000
		<b>140,000</b>
<u>Plumbing</u> (Contract No. 4)	Underground Piping	20,000
	Equipment Supply	25,000
		<b>45,000</b>
<u>Sewer Rehab</u> (Contract No. 5)	Cleaning & TV Inspection	35,000
	Joint Testing & Sealing	45,000
	Chemical Root Treatment	4,000
	Manhole Rehabilitation	8,000
	Excavation & Backfill	6,000
	Pavement Replacement	12,000
	Material Supply	5,000
		<b>115,000</b>
<u>Sewer Rehab.</u> (Contract No. 6)	Cleaning & TV Inspection	58,000
	Joint Testing & Sealing	126,000
	Chemical Root Treatment	3,000
	Manhole Rehabilitation	15,000
	Excavation & Backfill	3,000
	Pavement Replacement	2,800
	Material Supply	1,000
		<b>208,800</b>
	Total	<b>\$2,171,000</b>

## ***ARTICLE 2(e) - NYS Uniform Contracting Questionnaire Instructions***

The NYS Uniform Contracting Questionnaire, which is included in Section V, "Bid Forms and Attachments," must be completed and submitted to **Department** by the apparent low bidder. The complete questionnaire must be received by **Department** within three (3) business days after the apparent low bidder has been so notified. The completed questionnaire or the affidavit of no change (if appropriate) must be addressed to:

NYS Department of Environmental Conservation  
Division of Management and Budget Services  
Procurement Bureau, 10<sup>th</sup> Floor  
625 Broadway  
Albany, NY 12233-5027

The envelope should be clearly marked "NYS Uniform Contracting Questionnaire." Failure of the apparent low bidder to timely submit the complete, properly executed questionnaire may result in disqualification of the low bidder.

Before **Department** will consent to any subcontracts over \$10,000, the proposed subcontractor must submit a complete, properly executed 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.

## INSTRUCTIONS FOR COMPLETING THE NEW YORK STATE UNIFORM CONTRACTING QUESTIONNAIRE

\*Please Read Before Completing Questionnaire

- Complete all sections of the Questionnaire.
- Submit this form as required by the contracting agency 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. If you have submitted one within 6 months of the bid date with any contracting agency, as long as the information remains unchanged and accurate, you may submit a complete certified copy of that form, together with an Affidavit of No Change, to the Agency with which you are bidding. A contracting agency may require additional information deemed necessary for its review. **Whenever more space is needed to answer any question or you wish to give further explanation, complete by attaching extra pages. All questions must be answered.**
- For question #16, if your firm has OSHA citations, attach copies of each citation. Add additional explanatory material for any other affirmative answers.
- A certified annual financial disclosure will be acceptable in lieu of completing the financial disclosure in the questionnaire.
- If you wish material in this disclosure form to be held as confidential and exempt from disclosure under Freedom of Information, be sure to place an asterisk in front of all information you do not want disclosed to outside sources.
- This questionnaire is generally valid for one calendar year, unless major changes have occurred (firm purchased by another business, bankruptcy, etc.)
- Submit completed questionnaires marked "CONFIDENTIAL" to:

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
PROCUREMENT BUREAU  
625 BROADWAY, 10<sup>TH</sup> FLOOR  
ALBANY, NY 12233-5027  
(518) 402-9310

NEW YORK STATE  
UNIFORM CONTRACTING QUESTIONNAIRE

**INSTRUCTIONS**

Submit this form as required by the contracting agency 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. If you have submitted one within 6 months of the bid date with any contracting agency, as long as the information remains unchanged and accurate, you may submit a complete certified copy of that form, together with an Affidavit of No Change, to the agency with which you are bidding. A contracting agency may require additional information deemed necessary for its review. **Whenever more space is needed to answer any question, or you wish to give further explanation, complete by attaching extra pages. All questions must be answered.**

**NOTE:** Please indicate whether you believe that any of the information supplied herein is confidential and should be exempt from disclosure under the Freedom of Information Law:      yes,      no. If you checked "yes" you must identify the information you feel is confidential by placing an asterisk in front of the appropriate question number(s) and you are requested to attach an additional sheet(s) upon which the basis for such claim(s) is explained.

**GENERAL INFORMATION**

1. NAME OF 1. FIRM \_\_\_\_\_

DBA NAME, IF ANY \_\_\_\_\_

MAILING ADDRESS \_\_\_\_\_

PHONE NO. (\_\_\_\_) \_\_\_\_\_

CITY \_\_\_\_\_

COUNTY \_\_\_\_\_

STATE \_\_\_\_\_

ZIP \_\_\_\_\_

FAX NO. (\_\_\_\_) \_\_\_\_\_

ACTUAL LOCATION \_\_\_\_\_

E-MAIL ADDRESS \_\_\_\_\_

2. TYPE OF FIRM (check / only one) \_\_\_\_\_ CORPORATION \_\_\_\_\_ PARTNERSHIP \_\_\_\_\_ PROPRIETORSHIP \_\_\_\_\_ JOINT VENTURE \_\_\_\_\_ LLC \_\_\_\_\_ LLP

3. HOW MANY YEARS HAS THE FIRM BEEN IN BUSINESS? \_\_\_\_\_ UNDER THE SAME NAME? \_\_\_\_\_ FORMER NAME: \_\_\_\_\_

4. WHAT IS THE FIRM'S BONDING RANGE? \$ \_\_\_\_\_ SINGLE PROJECT \$ \_\_\_\_\_ AGGREGATE (ALL PROJECTS)

5. ARE YOU CERTIFIED AS A DBE \_\_\_\_\_ MBE \_\_\_\_\_ WBE \_\_\_\_\_ IF SO, WITH WHOM? \_\_\_\_\_

**OWNERSHIP, MANAGEMENT, AFFILIATION**

6. Identify each person who is, or has been within the past five years, an owner of 5.0% or more of the firm's shares, or one of the five largest shareholders or a director, an officer, a partner or a proprietor. Joint ventures: provide information for all firms involved. Fill in name, % owned, office held; indicate by Y or N whether director, officer or partner:

FIRST NAME	MI	LAST NAME	DATE OF BIRTH	% OWNED	DIRECTOR (Y or N)	OFFICER (Y or N)	TITLE	PARTNER (Y or N)




10. List the ten most recent contracts the firm has completed. If less than ten, include most recent subcontracts on projects up to that number:

AGENCY/OWNER, CONTACT PERSON & TELEPHONE NO.	CONTRACT NO.	PRIME OR SUB	DESIGN ARCHITECT AND/OR DESIGN ENGINEER	AWARD DATE	AMOUNT	DATE COMPLETED
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						

11. List all current uncompleted construction contracts:

AGENCY/OWNER, CONTACT PERSON & TELEPHONE NO.	CONTRACT NO.	PRIME OR SUB	DESIGN ARCHITECT AND/OR DESIGN ENGINEER	TOTAL \$ AMOUNT OF FIRM'S CONTRACT (OR SUBCONTRACT)	\$ AMOUNT SUBLET TO OTHERS	UNCOMPLETED \$ AMOUNT OF FIRM'S CONTRACT (OR SUBCONTRACT)




**Average Backlog for Firm's Previous 3 Fiscal Years:**  
(Estimated total value of uncompleted work on outstanding contracts)

12. Gross Sales for Firm's Previous 3 Fiscal Years:

**YEAR**

\$

\$

\$

13. Has the firm, or any firm listed in response to questions 6,7 or 8, defaulted or been terminated on, or had its surety called upon to complete, any contract awarded within the past five years? NO { } YES { } If, yes, give date(s), agency(ies)/owner(s), project(s), contract numbers, and describe including the result:

14. For all contracts within the past five years: (a) list and describe all liens or claims over \$25,000 filed against the firm and remaining undischarged or unsatisfied for more than 90 days; and (b) list and describe all liquidated damages assessed

15. Complete the attached financial statement or attach a copy of the firm's most recent annual financial statement and accompanying notes.

## OTHER INFORMATION

16. Within the past five years has the firm, any affiliate, any predecessor company or entity, or any person identified in question number 6 above been the subject of any of the following: (respond to each question and describe in detail the circumstances of each affirmative answer; attach additional pages if necessary)

- |     |   |    |            |
|-----|---|----|------------|
| (a) | a judgment of conviction for any business-related conduct constituting a crime under state or federal law?  | no | yes        |
| (b) | a criminal investigation or indictment for any business-related conduct constituting a crime under state or federal law?  | no | yes        |
| (c) | a grant of immunity for any business-related conduct constituting a crime under state or federal law?   | no | yes        |
| (d) | a federal or state suspension or debarment?   | no | yes        |
| (e) | a rejection of any bid for lack of qualifications, responsibility or because of the submission of an informal, non-responsive or incomplete bid?                            | no | yes        |
| (f) | a rejection of any proposed subcontract for lack of qualifications, responsibility or because of the submission of an informal, non-responsive or incomplete bid?           | no | yes        |
| (g) | a denial or revocation of prequalification?   | no | yes        |
| (h) | a voluntary exclusion from bidding/contracting agreement?   | no | yes        |
| (i) | any administrative proceeding or civil action seeking specific performance or restitution in connection with any public works contract except any disputed work proceeding? | no | <u>yes</u> |

- (j) an OSHA Citation and Notification of Penalty containing a violation classified as serious? no \_\_\_ yes \_\_\_
- (k) an OSHA Citation and Notification of Penalty containing a violation classified as willful? no \_\_\_ yes \_\_\_
- (l) a prevailing wage or supplement payment violation? no \_\_\_ yes \_\_\_
- (m) a State Labor Law violation deemed willful? no \_\_\_ yes \_\_\_
- (n) any other federal or state citations, Notices, violation orders, pending administrative hearings or proceedings or determinations of a violation of any labor law or regulation? no \_\_\_ yes \_\_\_
- (o) any criminal investigation, felony indictment or conviction concerning formation of, or any business association with, an allegedly false or fraudulent women's, minority or disadvantaged business enterprise? no \_\_\_ yes \_\_\_
- (p) any denial, decertification, revocation or forfeiture of Women's Business Enterprise, Minority Business Enterprise or Disadvantaged Business Enterprise status? no \_\_\_ yes \_\_\_
- (q) rejection of a low bid on a State contract for failure to meet statutory affirmative action or M/WBE requirements? no \_\_\_ yes \_\_\_
- (r) a consent order with the NYS Department of Environmental Conservation, or a federal, state or local government enforcement determination involving a violation of federal or state environmental laws? no \_\_\_ yes \_\_\_
- (s) any bankruptcy proceeding? no \_\_\_ yes \_\_\_
- (t) any suspension or revocation of any business or professional license? no \_\_\_ yes \_\_\_
- (u) any citations, Notices, violation orders, pending administrative hearings or proceedings or determinations of a violation of:
- \* federal, state or local health laws, rules or regulations no \_\_\_ yes \_\_\_
  - \* federal, state or local environmental laws, rules or regulations no \_\_\_ yes \_\_\_
  - \* unemployment insurance or workers compensation coverage or claim requirements no \_\_\_ yes \_\_\_
  - \* ERISA (Employee Retirement Income Security Act) no \_\_\_ yes \_\_\_
  - \* federal, state or local human rights laws no \_\_\_ yes \_\_\_
  - \* federal or state security laws? no \_\_\_ yes \_\_\_
- (v) a request to withdraw a bid submitted to a public owner or any claim of an error on a bid submitted to a public owner? no \_\_\_ yes \_\_\_

**CERTIFICATION**

The undersigned recognizes that this questionnaire is submitted for the express purpose of inducing the State of New York or its agencies and instrumentalities to award a contract, or approve a subcontract; acknowledges that the State or its agencies and instrumentalities may in its discretion, by means which it may choose, determine the truth and accuracy of all statements made herein; acknowledges that intentional submission of false or misleading information may constitute a felony under Penal Law §210.40 or a misdemeanor under Penal Law §210.35 or §210.45, and may also be punishable by a fine of up to \$10,000 or imprisonment of up to five years under 18 U.S.C. §1001; and states that the information submitted in this questionnaire and any attached pages is true, accurate and complete.

Sworn to before me this

\_\_\_\_\_ day of \_\_\_\_\_,

\_\_\_\_\_  
Signature of Officer

\_\_\_\_\_  
Notary Public

\_\_\_\_\_  
Title

CCA-1 (05/2002)

FED.ID NO. \_\_\_\_\_

\_\_\_\_\_  
Print) Officer Name (Please

Commission Expiration Date

As of (date): \_\_\_\_\_

Current Assets

1. Cash	\$ _____
2. Accounts receivable - less allowance for doubtful accounts	_____
Retainers included in accounts receivable	\$ _____
Claims included in accounts receivable not yet approved or in litigation	_____
3. Notes receivable - due within one year	_____
4. Inventory - materials	_____
5. Contract costs in excess of billings on uncompleted contracts	_____
6. Accrued income receivable	_____
Interest	_____
Other (list) _____	_____
Total accrued income receivable	_____
7. Deposits	_____
Bid and plan _____	_____
Other (list) _____	_____
Total deposits	_____
8. Prepaid Expenses	_____
Income Taxes	_____
Insurance	_____
Other (list) _____	_____
Total prepaid expenses	_____
9. Other current Assets	_____
(list) _____	_____
Total other current assets	_____
10. Total Current Assets	_____
11. <u>Investments</u>	_____
Listed securities-present market value	_____
Unlisted securities-present value	_____
Total investments	_____
12. Fixed Assets	_____
Land	_____
Building and improvements	_____

Leasehold Improvements  
Machinery and equipment

12. Fixed Assets (Continued)

Automotive equipment  
Office furniture and fixtures  
Other (list) \_\_\_\_\_

Total

Less: accumulated depreciation

Total fixed assets - net

13. Other Assets

Loans receivable      - officers  
                                 - employees  
                                 - shareholders

Cash surrender value of officers' life insurance  
Organization expense - net of amortization  
Notes receivable - due after one year  
Other (list) \_\_\_\_\_

Total other assets

## 14. TOTAL ASSETS

Current Liabilities

15. Accounts payable \_\_\_\_\_  
 16. Loans from shareholders - due within one year \_\_\_\_\_  
 17. Notes payable - due within one year \_\_\_\_\_  
 18. Mortgage payable - due within one year \_\_\_\_\_  
 19. Other payables - due within one year (list) \_\_\_\_\_ \$ \_\_\_\_\_

- Total other payables - due within one year \_\_\_\_\_  
 20. Billings in excess of costs and estimated earnings \_\_\_\_\_  
 21. Accrued expenses payable - salaries and wages \_\_\_\_\_  
     - payroll taxes \_\_\_\_\_  
     - employees' benefits \_\_\_\_\_  
     - insurance \_\_\_\_\_  
     - other \_\_\_\_\_

- Total accrued expenses payable \_\_\_\_\_  
 22. Dividends payable \_\_\_\_\_  
 23. Income taxes payable - state \_\_\_\_\_  
     - federal \_\_\_\_\_  
     - other \_\_\_\_\_

## Total income taxes payable \_\_\_\_\_

24. Total Current Liabilities \_\_\_\_\_  
 25. Deferred Income Taxes Payable - state \_\_\_\_\_  
     - federal \_\_\_\_\_  
     - other \_\_\_\_\_

## Total deferred income taxes \_\_\_\_\_

26. Long Term Liabilities  
     Loans from shareholders - due after one year \_\_\_\_\_  
     Notes payable - due after one year \_\_\_\_\_  
     Mortgage - due after one year \_\_\_\_\_  
     Other payables - due after one year (list) \_\_\_\_\_

## Total long term liabilities \_\_\_\_\_

27. Other Liabilities  
     (list) \_\_\_\_\_

## Total other liabilities \_\_\_\_\_

28. TOTAL LIABILITIES \_\_\_\_\_

LIABILITIES

\$ \_\_\_\_\_

**NET WORTH**

29. Net Worth (if proprietorship or partnership)	\$ _____
30. Stockholders' Equity	
Common stock issued and outstanding	_____
Preferred stock issued and outstanding	_____
Retaining earnings	_____
Total	_____
Less: Treasury stock	_____
31. TOTAL STOCKHOLDERS' EQUITY	_____
32. TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	=====

**NOTE: IF ADDITIONAL SPACE IS REQUIRED, PLEASE NOTE AND ATTACH SCHEDULE TO STATEMENT**

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
Name of OrganizationBy: \_\_\_\_\_  
Signature and Title\_\_\_\_\_  
Name (please print)

## *Affidavit of No Change*

State of \_\_\_\_\_ )  
County of \_\_\_\_\_ ) s.s.:

The undersigned, being duly sworn, deposes and says:

- 1) I am an officer/owner of \_\_\_\_\_ (hereinafter the "Contractor"), which is currently submitting a bid on a State Contract.
- 2) Contractor previously submitted a NYS Uniform Contracting Questionnaire within one year prior to the date hereof to \_\_\_\_\_ in connection with a bid on another State Contract.
- 3) Attached is an accurate and true copy of such previously submitted NYS Uniform Contracting Questionnaire.
- 4) I hereby certify that, with the exception of the information specified in questions 10 and 11, there has been no material change in the information pertaining to the Contractor specified on such attached Questionnaire, except as follows:

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- 5) I hereby certify that there has been no change in the information pertaining to the uncompleted construction contracts of the Contractor specified in question 11 on the attached Questionnaire, except as follows:

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On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, before me personally came \_\_\_\_\_ to me known to be the person described herein, and who executed the foregoing instrument, and severally acknowledged that (s)he executed the same.

(Seal)

\_\_\_\_\_  
Notary Public



### ***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, 12<sup>th</sup> Floor, New York State Department of Environmental Conservation, 625 Broadway, Albany, New York 12233-7013. Attention: " DAVID CHIUSANO ", Project Manager." (See Section IV, Article 2 for name of project manager).

**New York State Department of Environmental Conservation  
Division of Environmental Remediation  
Remedial Bureau D, 12<sup>th</sup> Floor  
625 Broadway, Albany, NY 12233-7013**

NYSDEC-DER Site No. **2-41-026**

**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 Department of Environmental Conservation

**Location and Description of Work** \_\_\_\_\_

**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.

<b>Insurance</b>	<b>Policy #</b>	<b>Name of Company Affording Coverage</b>	<b>Expir. Date</b>	<b>Limits of Liability (in thousands)</b>	
				<b>Each Occurrence</b>	<b>Aggregate</b>
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				\$5 million per claim if possible	
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 D, NYS Dept. of Environmental Conservation, 12<sup>th</sup> floor, 625 Broadway, Albany, NY 12233-7013. Such notice shall be mailed via certified or registered mail.

By \_\_\_\_\_

**Date Issued**

**(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** 2-41-026

**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**

L.S.

**Date** \_\_\_\_\_

**Corporate Seal of Surety Company**

\_\_\_\_\_  
**Corporation Surety**

\_\_\_\_\_  
**Business Address**

By (President) \_\_\_\_\_

Attest (Secretary) \_\_\_\_\_

**Date** \_\_\_\_\_

**(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

(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

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

***Labor and Material Payment Bond***

Date Bond Executed \_\_\_\_\_ NYSDEC-DER Site Number 2-41-026

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 \_\_\_\_\_

**(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

**(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

**CONSULTANT/CONTRACTOR DETAIL AND M/WBE-EEO UTILIZATION PLAN**  
**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION**  
 (THE M/WBE-EEO GOALS MUST BE PLACED ON THE ENTIRE PROJECT COST)

Consultant/Contractor Name:			
Contract Type/Number:		Contract Award Date:	
Address:		City:	Zip Code:
Project Owner Name:			
Address:		City:	Zip Code:
Authorized Representative:			
Authorized Signature:			

**EEO AND MBE/WBE CONTRACT SUMMARY (MUNICIPAL FORCE ACCOUNT N/A)**

M/WBE CONTRACT SUMMARY	%	Amount	EEO CONTRACT SUMMARY	%	No./Emp.	Wk./Hrs.
1. Total Dollar Value of the Project			6. Total for all Employees			
2. Total Dollar Value of the Prime Contract			7. Total Goal for Minority Employees			
3. MBE Goal/Amount			8. Total Goal for Female Employees			
4. WBE Goal/Amount			9. EEO Combined Totals			
5. MBE/WBE Combined Totals						

**Office of Minority & Women's Business Programs Use Only**

Proposed Goals		Date Approved	Date Disapproved	Initials
MBE (%)	EEO-Minorities (%)			
WBE (%)	EEO-Minorities (%)			

to participate in the following manner:

MBE Firm	Projected MBE Contract Amount and Award Date	Description of Work MBE	Contract Schedule/Start Date(s)	Contract Payment Schedule	Project Completion Date
Name: Address: City: State/Zip Code: Telephone No.:	\$ _____ DATE: _____				
Name: Address: City: State/Zip Code: Telephone No.:	\$ _____ DATE: _____				
Name: Address: City: State/Zip Code: Telephone No.:	\$ _____ DATE: _____				

participate in the following

WBE Firm	Projected WBE Contract Amount and Award Date	Description of Work WBE	Contract Schedule/Start Date(s)	Contract Payment Schedule	Project Completion Date
Name: Address: City: State/Zip Code: Telephone No.:	\$ _____ DATE: _____				
Name: Address: City: State/Zip Code: Telephone No.:	\$ _____ DATE: _____				
Name: Address: City: State/Zip Code: Telephone No.:	\$ _____ DATE: _____				

following job categories for the specified amount of work hours:

Job Categories	Total Work Hours of Contract	All Employees		Minority Employees			
		Male	Female	African-American	Asian/Pacific Islander	Native American	Hispanic
Officials/ Managers							
Professionals							
Technicians							
Sales Workers							
Office/Clerical							
Craftsman							
Laborers							
Services/ Workers							
Totals							

**VERIFICATION**

STATE OF ( )

COUNTY OF ( ) SS No.:

(A)

\_\_\_\_\_, being duly sworn, states he or she is the owner of (or a partner in) the enterprise making the foregoing Utilization Plan and representations made in the Utilization Plan are true to his or her own knowledge.

(B)

\_\_\_\_\_, being duly sworn, states that he or she is the

Name of Corporate Officer

\_\_\_\_\_, of \_\_\_\_\_, the

Title of Corporate Officer Name of Corporation

enterprise making the foregoing Utilization Plan, that he or she has read the Utilization Plan and knows its contents, that the statements and representations made in the Utilization Plan are true to his or her knowledge, and that the Utilization Plan is made at the direction of the Board of Directors of the Corporation and/or owners.

Date

Signature

Sworn to before me this \_\_\_\_\_

day of \_\_\_\_\_, \_\_\_\_\_

Notary Public

Person assisting in completing the Utilization Plan:

Print Name

Signature

Telephone No.

## CONSULTANT/ CONTRACTOR DETAILED M/WBE-EEO UTILIZATION PLAN

This Utilization Plan must be verified under oath in the following manner:

(A) if the enterprise is a sole proprietorship, by owner, or if the enterprise is a partnership, by partner; or

(B) if the enterprise is a corporation, by the principal officer designated by the Board of Directors. All Applicants/Contractors must read and review all items preceding the verification before signing. These items contain responsibilities of the Applicant, rights retained by the State of New York and penalties that may be applied for false statements.

FIRST, this Utilization Plan form, the supporting documents and any other information provided in support of the utilization plan are considered part of the Contract/Application. It is recognized and acknowledged that the information contained in this Utilization Plan is given under oath and that any misrepresentation made in this is subject to both the civil and criminal laws of the State of New York.

SECOND, by filing this Utilization Plan, the Contractor/Applicant consents to periodic examination of its books, records, and an interview of its principals and employees by the OMWBP for the purpose of determining the solicitation and utilization of certified Minority and Woman-Owned Business Enterprises.

THIRD, by filing this Utilization Plan, the Applicant/Contractor consents to inquiries that may be directed by the OMWBP to the Applicant's/Contractor's companies, banking institutions, credit agencies, and contractors for the purpose of ascertaining the Applicant's/Contractor's payments to subcontractors.

FOURTH, the Applicant/Contractor agrees to provide notice to the OMWBP of any material change in the information contained in the original application within fifteen (15) days of such change.

FIFTH, by filing this utilization plan, the Applicant/Contractor consents to the OMWBP's sharing reports, summaries, reviews, analyses, recommendations and determinations related to this Utilization Plan with other state agencies, which may request such information as a result of the Applicant/Contractor submitting this Utilization Plan.

I have read and acknowledge the foregoing.

---

Signature of Owner/Applicant

**CONTRACTOR'S APPLICATION FOR PAYMENT  
(UNIT PRICE CONTRACT)**

Payee (Name and Address)	<b>FOR INTERNAL USE ONLY</b>		
	STATE COMPTROLLER'S PRE AUDIT CERTIFIED FOR PAYMENT IN THE SUM OF  \$ _____  By: _____	Comptroller's Contract Number	
		Certificate Number	
		Originating Agency	
Work Period Ending 20____	Date Prepared		

With Final Payment Attach Labor Affidavits for Payroll Period to Conform to New York State Labor Law Section 220.

**SCHEDULE I****FINANCIAL STATEMENT**

CONTRACT AND CHANGE ORDER AMOUNTS Line		WORK COMPLETED TO DATE Line	
1. Original Bid Price (Schedule V, Col. 1)	\$	1. Contract Work Performed (Schedule V, Col. 2)	\$
2. Change Order (Schedule VI, Col. 1)	\$	2. Change Orders (Schedule VI, Col. 2)	\$
3. Net Contract Amount	\$	3. Value earned to Date	\$
4. Maximum Retainage (5% of Line 3)	\$	4. Less Retainage (5% up to Maximum)	\$
		5. Value Earned to Date Less Retainage , Damages, & Credits	\$
		6. Less Prior Payments	\$
		7. This Payment	\$

**SCHEDULE II****CERTIFICATION BY CONTRACTOR**

I \_\_\_\_\_ (Name) do hereby certify that I am \_\_\_\_\_ (Title) of the Company/Corporation herein referenced and contractor for the work described in the foregoing application for payment. According to my knowledge and belief all items and amounts shown on the face of this application for payment are correct, all work has been performed and/or materials supplied, the foregoing is a true and correct statement of the contract account up to and including the last day of the period covered by this application.

Date

Signature

**SCHEDULE III****CERTIFICATION OF INSPECTOR**

I certify that I have checked and verified the above application for payment; that to the best of my knowledge and belief it is a true and correct statement of work performed and/or material supplied by the contractor; that all work/or material included in this application has been inspected by me and/or by my duly authorized representative or assistants and that the work has been performed and/or materials supplied in full accordance with requirements of the referenced contract; and that payment claimed and requested by the contractor is correctly computed on the basis of work performed and/or material supplied to date.

Date

Architect/Engineer

**SCHEDULE IV****ENDORSED BY DEPARTMENT OF ENVIRONMENTAL CONSERVATION**

EXAMINED AND APPROVED BY RESPONSIBLE DIVISION OR BUREAU

APPROVED FOR PAYMENT BY DIVISION OF FISCAL MANAGEMENT

DATE

SIGNATURE

DATE

SIGNATURE

EXPENDITURES							LIQUIDATION				
Dept	Cost Center	Var	Yr	Object	Accum		Amount	Orig. Agency	PO/Contract	Line	F/P
					Dept	Statewide					





DIVISION OF MANAGEMENT AND BUDGET  
**CONTRACTOR'S APPLICATION FOR PAYMENT**  
**(LUMP SUM CONTRACT)**

Payee (Name and Address)	<b>FOR INTERNAL USE ONLY</b>		
	STATE COMPTROLLER'S PRE AUDIT CERTIFIED FOR PAYMENT IN THE SUM OF  \$ _____  By: _____	Comptroller's Contract Number	
		Certificate Number	
		Originating Agency	
Work Period Ending 20____	Date Prepared		

With Final Payment Attach Labor Affidavits for Payroll Period to Conform to New York State Labor Law Section 220.

**SCHEDULE I FINANCIAL STATEMENT**

CONTRACT AND CHANGE ORDER AMOUNTS Line		WORK COMPLETED TO DATE Line	
1. Original Bid Price (Schedule V, Col. 1)	\$	1. Contract Work Performed (Schedule V, Col. 2)	\$
2. Change Order (Schedule VI, Col. 1)	\$	2. Change Orders (Schedule VI, Col. 2)	\$
3. Net Contract Amount	\$	3. Value earned to Date	\$
4. Maximum Retainage (5% of Line 3)	\$	4. Less Retainage (5% up to Maximum)	\$
		5. Value Earned to Date Less Retainage, Damages, & Credits	\$
		6. Less Prior Payments	\$
		7. This Payment	\$

**SCHEDULE II CERTIFICATION BY CONTRACTOR**

I \_\_\_\_\_ (Name) do hereby certify that I am \_\_\_\_\_ (Title) of the Company/Corporation herein referenced and contractor for the work described in the foregoing application for payment. According to my knowledge and belief all items and amounts shown on the face of this application for payment are correct, all work has been performed and/or materials supplied, the foregoing is a true and correct statement of the contract account up to and including the last day of the period covered by this application.

\_\_\_\_\_ Date \_\_\_\_\_ Signature

**SCHEDULE III CERTIFICATION OF INSPECTOR**

I certify that I have checked and verified the above application for payment; that to the best of my knowledge and belief it is a true and correct statement of work performed and/or material supplied by the contractor; that all work/or material included in this application has been inspected by me and/or by my duly authorized representative or assistants and that the work has been performed and/or materials supplied in full accordance with requirements of the referenced contract; and that payment claimed and requested by the contractor is correctly computed on the basis of work performed and/or material supplied to date.

\_\_\_\_\_ Date \_\_\_\_\_ Architect/Engineer

**SCHEDULE IV ENDORSED BY DEPARTMENT OF ENVIRONMENTAL CONSERVATION**

EXAMINED AND APPROVED BY RESPONSIBLE DIVISION OR BUREAU      APPROVED FOR PAYMENT BY DIVISION OF FISCAL MANAGEMENT

\_\_\_\_\_ DATE \_\_\_\_\_ SIGNATURE      \_\_\_\_\_ DATE \_\_\_\_\_ SIGNATURE

EXPENDITURES								LIQUIDATION			
Dept	Cost Center	Var	Yr	Object	Accum		Amount	Orig. Agency	PO/Contract	Line	F/P
					Dept	Statewide					

<b>Project:</b>			<b>Contract Number</b>			
			<b>Work Period</b>			
<b>SCHEDULE V                                  JOB PROGRESS</b>						
<b>Item</b>	<b>Type of Work</b>	<b>COLUMN 1 Detailed Estimate</b>	<b>Work %</b>		<b>COLUMN 2 Value Earned to Date</b>	<b>Code</b>
			<b>Prior</b>	<b>New</b>		
Liquidated Damages					(\$                      )	
Credits					(\$                      )	
	<b>TOTALS</b>	\$			\$	

SCHEDULE VI			APPROVED CHANGE ORDERS										
COLUMN 1			WORK %		COLUMN 2			COLUMN 1		WORK %		COLUMN 2	
No.	+ -	Additions - Deductions	Prior	New	Value Earned to Date	No.	+ -	Additions-Deductions	Prior	New	Value Earned to Date		
		\$			\$			\$	SUBTOTAL		\$		
(SUB) TOTAL		\$			\$	TOTAL		\$			\$		

**Final Payment Release**

For and in consideration of the receipt of final payment on the contract hereinafter identified, and in order to induce the New York State Department of Environmental Conservation (**Department**) to make such payment, the **Contractor** hereby releases the **Department** for any and all claims, of any nature whatsoever, arising under or in connection with the contract, except for the following claims:

(List any exempted claims)

For and in consideration of the receipt of final payment on the contract hereinafter identified, and in order to induce the **Department** to make such payment, the **Contractor** hereby states that it has paid all moneys due subcontractors, subconsultants, suppliers, material, men or others due payment for work or services performed in furtherance of this contract, except as follows:

(List all subcontractors, subconsultants, suppliers, etc. who have outstanding claims for payment or who have not been paid in full. A complete explanation of the facts and circumstances should be set forth on a separate sheet and attached hereto)

The **Contractor** hereby indemnifies and holds the **Department** and the State of New York harmless from any losses from claims, demands, payments, suits, actions, liens, recoveries and judgments of every nature and description brought or recovered against it by reason of failure to make such payments.

Contract Number \_\_\_\_\_

\_\_\_\_\_  
Firm

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

**(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 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.

Seal

\_\_\_\_\_  
Notary Public

**ARTICLE 4(c)**

***Payment Affidavit***

**This Article 4(c) is not applicable**









## 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:

\_\_\_\_\_  
West Side Corporation Site Operable Unit No. 1

\_\_\_\_\_  
Remedial Construction Contract D004478

\_\_\_\_\_  
May 2003.

### ***ARTICLE 3 - Engineer***

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

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

### ***ARTICLE 5 - Contractor's Representations***

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

- 5.1 **Contractor** has familiarized itself with the nature and extent of the Contract Documents, Work, site, locality, and all local conditions and applicable Laws that in any manner may affect cost, schedule, progress, performance or furnishing of the Work.
- 5.2 **Contractor** has studied carefully all reports of explorations and tests of subsurface conditions and drawings of physical conditions which are identified in Information to Bidders, as provided in the

General Conditions, and accepts the determination set forth in said Section to the extent of the technical data contained in such reports and drawings upon which **Contractor** is entitled to reply.

- 5.3 **Contractor** has obtained and carefully studied all such examinations, investigations, explorations, tests, reports and studies which pertain to the subsurface or physical conditions at or contiguous to the site or otherwise may affect the cost, schedule, progress, performance or furnishing of the Work as **Contractor** considers necessary for the performance or furnishing of the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents, including specifically the provisions of Article 3 of the General Conditions; and no additional examinations, investigations, explorations, tests, reports, studies or similar information or data are or will be required by **Contractor** for such purposes.
- 5.4 **Contractor** has reviewed and checked all information and data shown or indicated on the Contract Documents with respect to existing Underground Facilities. No additional examinations, investigations, explorations, tests, reports, studies or similar information or data in respect of said Underground Facilities are or will be required by **Contractor** in order to perform and furnish the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents, including specifically the provisions of Article 3 of the General Conditions.
- 5.5 **Contractor** has correlated (or assumes responsibility for correlating) the results of all such observations, examinations, investigations, explorations, tests, reports and studies with the terms and conditions of the Contract Documents.
- 5.6 **Contractor** has given **Engineer** written notice of all conflicts, errors or discrepancies that he (she) has discovered in the Contract Documents and any written resolution thereof is acceptable to **Contractor**.

#### ***ARTICLE 6 - Contract Time***

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 six hundred seventy-five (675) calendar days from the date established in the Notice to Proceed.
- 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 date established in the Notice to Proceed.
- 6.3 The Work will be completed and ready for final payment in accordance with the General Conditions within seven hundred and five (705) calendar days from the date established in the Notice to Proceed 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 eight hundred dollars (\$800) 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 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 four hundred seventy-five dollars (\$475) 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.

- 9.1.1 Prior to Substantial Completion of the Work, progress payments will be made less five percent (5%) the aggregate of payments 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.

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Robert Knizek, Section Chief, Section D

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Remedial Bureau D, Division of Environmental Remediation

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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.

#### ***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 Contract 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:

1)	Bid	\$ _____
2)	Bid Alternate (Pollution Liability Insurance)	\$ _____
	<b>Total</b>	\$ _____
	Plus change order(s)	

**CONTRACT NUMBER** D004478

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:***

***Approved:***

By: \_\_\_\_\_

**For Attorney General**

By: \_\_\_\_\_

**For State Comptroller**

Date: \_\_\_\_\_

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

**ATTACHMENT A**  
**SEPARABLE PARTS OF THE WORK - CONTRACT NUMBER D004478**

The specified work for Contract Number D004478 is separated into four (4) parts as follows:

**PART A**- Installation and construction of Electrical Resistance Heating (ERH) system, through achievement of initial startup and temperature goals, and installation of a Subsurface Depressurization System (SSD).

This part includes all specified work required to satisfactorily construct, install, and start up an ERH system, and to construct, install, startup, and operate an SSD system that meets all requirements specified herein. This work includes: site preparation, fence installation, the complete ERH system equipment, ERH electrodes / vapor recovery wells, piping, installation and connection of EW-10, the complete off-gas treatment system, temperature monitoring points, well decommissioning, including the chemical oxidation and monitoring wells, installation, startup and operation of the complete SSD system, installation of new and replacement groundwater monitoring wells, utility connections, and disposal of contaminated soil generated in conjunction with the system installations. Part A shall not be considered complete until the temperature goals and all other conditions for the startup of the ERH system as identified in these Contract Documents, Section 11302, 1.3 – Performance Objectives, have been satisfactorily achieved as determined by the Department. Part A shall include all work not specifically identified in Parts B, C, and D.

Part A work shall be Substantially Completed within one hundred twenty-five (125) calendar days from the Notice to Proceed date. Liquidated damages shall be in the amount of Eight Hundred Dollars (\$800.00) for each calendar day that expires until this separable part of the work is considered satisfactorily complete by the Department.

**PART B** – Completed operation and decommissioning of the ERH system.

This part of the work shall commence on the first day after the Department has given the Notice of Part A Substantial Completion to the Contractor. This work includes all Contractor operation, monitoring and maintenance of the ERH and SSD systems by the Contractor, continuously meeting all system performance objectives as stipulated by Section 11302 of these Contract Documents. This work also includes all post-ERH soil and groundwater sampling and analysis; installation of six exploratory soil borings; standby time; restart and further operation of the ERH system; decommissioning and off-site removal of the ERH system and its components, including wells and piping; fence removal; restoration of the site as affected by the ERH system; and submittal of all operating logs and reports for the ERH system. Part B shall include all work not specifically identified in Parts A, C, and D.

Part B work shall be Substantially Completed within three hundred eighty-five (385) calendar days from the Notice to Proceed date. Liquidated damages shall be in the amount of Eight Hundred Dollars (\$800.00) for each calendar day that expires until this separable part of the work is considered satisfactorily complete by the Department.

**PART C** – Installation and construction of a Soil Vapor Extraction (SVE) system, through successful achievement of all startup and testing objectives.

This part includes all specified work required to satisfactorily construct, install, and start up an SVE system that meets all requirements specified herein. This work includes: site preparation, the complete SVE system equipment, SVE extraction wells, piping, the complete off-gas treatment system, vacuum monitoring points, utility connections, and disposal of contaminated soil generated in conjunction with the SVE system installation. Part C also includes connection of the SSD system to the SVE system, and operation of the SSD system until the conversion. Part C shall not be considered complete until all conditions for startup and testing identified in

Section 11301 of the Contract Documents have been satisfactorily achieved as determined by the Department. Part C shall include all work not specifically identified in Parts A, B, and D.

Part C work shall be Substantially Completed within ninety (90) calendar days from the date of Substantial Completion for Part B. Liquidated damages shall be in the amount of Eight Hundred Dollars (\$800.00) for each calendar day that expires until this separable part of the work is considered satisfactorily complete by the Department.

**PART D** – Completed operation of the SVE system.

This work includes all Contractor operation, monitoring and maintenance of the SVE system by the Contractor for a period of up to six (6) months following the startup period, continuously meeting all system performance objectives and requirements as stipulated by Section 11301 of these Contract Documents. After the six month operational period, the Contractor shall turn over to the Department a fully operational treatment system which is achieving the required performance objectives as stipulated within these Contract Documents, and as required by the approved Operation & Maintenance (O&M) Manual. The Contractor under this separable part shall complete all site restoration activities and all remaining site work. The Contractor shall also train the Department personnel in the operation of the SVE system. This part shall not be considered complete until all required operating logs and reports have been submitted, and all equipment and materials belonging to the Contractor have been removed from the site. Part D shall include all work not specifically identified in Parts A, B, and C.

Part D work shall be Substantially Completed within two hundred (200) calendar days from the date of Substantial Completion for Part C. Liquidated Damages shall be in the amount of Four Hundred Seventy-Five Dollars (\$475) for each calendar day that expires until this separable part of the work is considered satisfactorily complete by the Department.

Final completion for the work shall be within thirty (30) calendar days from the date of Substantial Completion for Part D. Liquidated Damages shall be in the amount of Four Hundred Seventy-Five Dollars (\$475.00) for each calendar day that expires until all parts of the work are considered final by the Department.

**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 previous consent, in writing, of the State and any attempts to assign the contract without the State's written consent are null and void. The Contractor may, however, assign its right to receive payment without the State's prior written 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 \$15,000 (or the minimum thresholds agreed to by the Office of the State Comptroller for certain S.U.N.Y. and C.U.N.Y. contracts), or if this is an amendment for any amount to a contract which, as so amended, exceeds said statutory amount, or if, by this contract, the State agrees to give something other than money when the value or reasonably estimated value of such consideration exceeds \$10,000, 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 \$30,000 (State Finance Law Section 163.6.a).

**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.

**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 warrants, under penalty of perjury, that its bid was arrived at independently and without collusion aimed at restricting competition. Contractor further warrants that, at the time Contractor submitted its bid, an authorized and responsible person executed and delivered to the State a non-collusive bidding certification on Contractor's behalf.

**8. INTERNATIONAL BOYCOTT PROHIBITION.** In accordance with Section 220-f of the Labor Law and Section 139-h of the State 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) FEDERAL EMPLOYER IDENTIFICATION NUMBER and/or FEDERAL SOCIAL SECURITY NUMBER. All invoices or New York State standard vouchers submitted for payment for the sale of goods or services or the lease of real or personal property to a New York State agency must include the payee's identification number, i.e., the seller's or lessor's identification number. The number is either the payee's Federal employer identification number or Federal social security number, or both such numbers when the payee has both such numbers. Failure to include this number or numbers may delay payment. Where the payee does not have such number or numbers, the payee, on its invoice or New York State standard voucher, must give the reason or reasons why the payee does not have such number or numbers.

(b) **PRIVACY NOTIFICATION.** (1) The authority to request the 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 New York State's Central Accounting System by the Director of Accounting Operations, Office of the State Comptroller, AESOB, Albany, New York 12236.

**12. EQUAL EMPLOYMENT OPPORTUNITIES FOR MINORITIES AND WOMEN.** In accordance with Section 312 of the Executive Law, if this contract is: (i) a written agreement or purchase 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:

(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, 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; or (iii) banking services, insurance policies or the sale of securities. The State shall consider compliance by a contractor or subcontractor with the requirements of any federal law concerning equal employment opportunity which effectuates the purpose of this section. The contracting agency shall determine whether the imposition of the requirements of the provisions hereof duplicate or conflict with any such federal law and if such duplication or conflict exists, the contracting agency shall waive the applicability of Section 312 to the extent of such duplication or conflict. Contractor will comply with all duly promulgated and lawful rules and regulations of the Governor's Office 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 State Finance Law §165. (Use of Tropical Hardwoods) which prohibits purchase and use of tropical hardwoods, unless specifically exempted, by the State or any governmental agency or political subdivision or public benefit corporation. Qualification for an exemption under this law will be the responsibility of the contractor to establish to meet with the approval of the State.

In addition, when any portion of this contract involving the use of woods, whether supply or installation, is to be performed by any subcontractor, the prime Contractor will indicate and certify in 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  
30 South Pearl St -- 7<sup>th</sup> Floor  
Albany, New York 12245  
Telephone: 518-292-5220

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  
30 South Pearl St -- 2nd Floor  
Albany, New York 12245  
<http://www.empire.state.ny.us>

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. PURCHASES OF APPAREL.** In accordance with State Finance Law 162 (4-a), the State shall not purchase any apparel from any vendor unable or unwilling to certify that: (i) such apparel was manufactured in compliance with all applicable labor and occupational safety laws, including, but not limited to, child labor laws, wage and hours laws and workplace safety laws, and (ii) vendor will supply, with its bid (or, if not a bid situation, prior to or at the time of signing a contract with the State), if known, the names and addresses of each subcontractor and a list of all manufacturing plants to be utilized by the bidder.





**NON-COLLUSIVE BIDDING CERTIFICATION REQUIRED BY  
SECTION 139-D OF THE STATE FINANCE LAW**

**SECTION 139-D, Statement of Non-Collusion in bids to the State:**

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

[1] The prices of this bid have been arrived at independently, without collusion, consultation, communication, or agreement, for the purposes of restricting competition, as to any matter relating to such prices with any other 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.

**A BID SHALL NOT BE CONSIDERED FOR AWARD NOR SHALL ANY AWARD BE MADE WHERE [1], [2], [3] ABOVE HAVE NOT BEEN COMPLIED WITH; PROVIDED HOWEVER, THAT IF IN ANY CASE THE BIDDER(S) CANNOT MAKE THE FOREGOING CERTIFICATION, THE BIDDER SHALL SO STATE AND SHALL FURNISH BELOW A SIGNED STATEMENT WHICH SETS FORTH IN DETAIL THE REASONS THEREFORE:**

[AFFIX ADDENDUM TO THIS PAGE IF SPACE IS REQUIRED FOR  
STATEMENT.]

Subscribed to under penalty of perjury under the laws of the State of New York, this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_ as the act and deed of said corporation or partnership.

**IF BIDDER(S) (ARE) A PARTNERSHIP, COMPLETE THE FOLLOWING:**

**NAMES OF PARTNERS OR PRINCIPALS**

**LEGAL RESIDENCE**

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**IF BIDDER(S) (ARE) A CORPORATION, COMPLETE THE FOLLOWING:**

**NAME**

**LEGAL RESIDENCE**

**President:**

**Secretary:**

**Treasurer:**

**President:**

**Secretary:**

**Treasurer:**

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**Exhibit 1 Non-Collusive Bidding Certification-3**

**Identifying Data**

Potential Contractor \_\_\_\_\_

Address \_\_\_\_\_

Street

City, Town, etc.

Telephone \_\_\_\_\_

Title \_\_\_\_\_

If applicable, Responsible Corporate Officer

Name \_\_\_\_\_

Title \_\_\_\_\_

Signature \_\_\_\_\_

Joint or combined bids by companies or firms must be certified on behalf of each participant.

\_\_\_\_\_  
Legal name of person, firm or corporation

\_\_\_\_\_  
Legal name of person, firm or corporation

By \_\_\_\_\_  
Name

\_\_\_\_\_  
Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

Address \_\_\_\_\_  
Street

Address \_\_\_\_\_  
Street

\_\_\_\_\_  
City State

\_\_\_\_\_  
City State



**Exhibit 2 Non Discrimination in Employment in Northern Ireland**

**NONDISCRIMINATION IN EMPLOYMENT IN NORTHERN IRELAND:**

**MACBRIDE FAIR EMPLOYMENT PRINCIPLES**

In accordance with section 165 of the State Finance Law, the bidder, by submission of this bid certifies that it or any individual or legal entity in which the bidder holds a 10% or greater ownership interest, or any individual or legal entity that holds a 10% or greater ownership in the bidder, either: (answer yes or no to one or both of the following, as applicable),

(1) has business operations in Northern Ireland;

Yes\_\_\_\_\_ or No\_\_\_\_\_

if yes:

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

Yes\_\_\_\_\_ or No\_\_\_\_\_

\_\_\_\_\_  
Signature



## APPENDIX B

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

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

**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 omission or tortious act of the Contractor, its agents, employees, suppliers or subcontractors in the performance of this contract. The Department and the State of New York may retain such monies from the amount due Contractor as may be necessary to satisfy any claim for damages, costs and the like, which is asserted against the Department and/or the State of New York.

**III. Conflict of Interest (a) Organizational Conflict of Interest.** To the best of the Contractor's knowledge and

belief, the Contractor warrants that there are no relevant facts or circumstances which could give rise to an organizational conflict of interest, as herein defined, or that the Contractor has disclosed all such relevant information to the Department.

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

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

(3) To the extent that the work under this contract requires access to personal, proprietary or confidential business or financial data of persons or other companies, and as long as such data remains proprietary or confidential, the Contractor shall protect such data from unauthorized use and disclosure and agrees not to use it to compete with such companies.

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

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



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

(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 ~~21.5%~~ of the dollar value of this contract to Minority Owned Business Enterprises (MBEs) and at least ~~13.7%~~ 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 10% of, and women for at least 10% 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](http://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:

**Ed Belmore, Director**  
**Remedial Bureau D**  
**Division of Environmental Remediation**  
**625 Broadway, 12<sup>th</sup> Floor, Albany, NY 12233-7013**  
**Tel:(518) 402-9814**

The designated appeal individual to review decisions is:

**Sal Ervolina, Assistant Director**  
**Division of Environmental Remediation, 12<sup>th</sup> Floor**  
**625 Broadway, Albany, NY 12233-7011**  
**Tel:(518) 402-9706**

The Chair of the Contract Review Committee is:

Department of Environmental Conservation  
**Nancy Lussier, Chair**  
**Contract Review Committee**  
**625 Broadway, 10th Floor**  
**Albany, NY 12233-5010**  
**Telephone: (518) 402-9237**

(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.

## ***Rider to Appendix B***

### ***Standard Clauses for all NYS Department of Environmental Conservation Contracts***

The parties to this contract hereby agree that clause II of this Appendix is hereby revised to read as follows:

- II. The Contractor agrees that it will indemnify and save harmless the Department and the State of New York from and against all losses from claims, demands, payments, suits, actions, recoveries and judgements, 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.

Department of Environmental Conservation

Dated: \_\_\_\_\_

By: \_\_\_\_\_  
**Director of Fiscal Management**

Dated: \_\_\_\_\_

By: \_\_\_\_\_  
**Contractor**

## SECTION VIII

### *General Conditions*

#### *ARTICLE 1 - Preliminary Matters*

##### *Copies of Documents:*

- 1.1 **Department** shall furnish to **Contractor** without charge up to ten 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 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 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, at 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 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 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 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 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 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 4.4.3 except as noted in 4.3.
- 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** listed as an additional insured.

4.2.2.3 Worker's Compensation, Employers Liability and Disability Benefits as required by State Law covering all employees doing work-within New York State. If workers will be working on, or near navigable waters, US Longshore and Harbor Workers Compensation Act endorsement must be included. This contract shall be void and of no effect unless the contractor procures this policy and maintains it in effect until final acceptance of this work.

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, and the **Department** 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**, 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**. Expiration of any coverage shall be grounds for termination of contract for cause, at the option 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. **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 **Additional Pollution Liability Insurance:** In addition, **Contractor** shall provide project specific Pollution Liability Insurance in an additional amount of not less than \$4,000,000, for a total of \$5,000,000, per claim if possible unless otherwise authorized in writing by the **Department**. If **Contractor** cannot obtain this additional level of coverage of \$4,000,000, the following documentation is required: written confirmation by **Contractor** from at least three insurance carriers. The cost of this additional pollution liability insurance will be reimbursed by **Department**. **Department** will determine if it is in **Department's** best interest to have this additional insurance.
- 4.4 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.
- 4.4.1 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.
- 4.4.2 **Contractor** shall purchase and maintain insurance which complies with the requirements of the Flood Disaster Protection Act.
- 4.4.3 **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. Such information shall in addition 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 revise 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 7 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 fully responsible 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 5.23 through 5.29 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 paragraph 5.12.1 thereof and in Appendix B.
- 5.12.1 **Contractor** shall, at its expense, defend any suit instituted against **Department** and indemnify **Department** against any award of damages and costs made against **Department** by a final judgment of a court of last resort based on the claim that any of inventions, designs, processes, products, devices or intellectual processes furnished by or used in the performance or incorporated in the Work by **Contractor** or any Subcontractor or Supplier, infringes any patent or copyright of the United States; provided **Department** gives **Contractor** immediate notice in writing, permits **Contractor** to defend the suit and gives **Contractor** all available information, assistance and authority to do so. **Contractor** shall control the defense of any such suit, including appeals, and all negotiations to effect settlement. If any of such items in any such suit is held to so infringe and its use is enjoined, **Contractor** shall, at its election and expense: 1) procure for **Department** the right to continue using the same; or 2) replace or modify the same so that it becomes non-infringing; or 3) remove the same and eliminate any obligation to pay future charges or royalties pertaining thereto.
- 5.12.2 In the event that an action at law or in equity is commenced against **Department** or State arising out of a claim that its use of any invention, design, process, product, device or intellectual process as under this Agreement infringes on any patent, copyright or proprietary right, and such action is forwarded to **Contractor** for defense and indemnification pursuant to paragraph 5.12.1 and Appendix B. **Department** shall copy all pleadings and documents forwarded to **Contractor** together with the forwarding correspondence to the Office of the Attorney General of the State of New York together with a copy of the Contract Documents. If upon receipt of such request for defense, or at any time thereafter, **Contractor** is of the opinion that the allegations in such action, in whole or in part, are not covered by the indemnification set forth herein, **Contractor** shall immediately notify **Department** and the Office of the Attorney General of the State of New York in writing and shall specify to what extent **Contractor** believes it is and is not obligated to defend and indemnify under the terms and conditions of this Agreement. **Contractor** shall in such event protect the interests of the 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 State shall have.
- 5.12.3 **Contractor** shall, however, have no liability to the **Department** under this Article 5.12 if any infringement is based upon or arises out of: 1) Compliance with designs, plans, or specifications furnished by or on behalf of **Department** as to the items; 2) Alterations of the items by **Department**; 3) Failure of **Department** to use updated items provided by **Contractor** for avoiding infringement; 4) Use of items in combination with apparatus or devices not delivered by **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 **Department** or any affiliate or subsidiary of the **Department** has any direct or indirect interest by license or otherwise.

- 5.12.4 The foregoing states **Contractor's** entire liability for, or resulting from, patent or copyright infringement or claim thereof.

### ***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 by

arbitration or by Law. **Contractor** shall, to the fullest extent permitted by Laws, 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. All damage, injury or loss to any property referred to in this 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 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.
- 5.21 **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:***

- 5.22 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**, **Contractor**, without special instruction or authorization from **Engineer** or **Department**, is obligated to act to prevent 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:***

- 5.23 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.
- 5.24 **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.
- 5.25 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.
- 5.26 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.
- 5.27 **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.

- 5.27.1 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 5.27.
- 5.27.2 **Contractor** shall revise and correct Shop Drawings and samples and resubmit them to **Engineer** for **Engineer's** second review and return pursuant to paragraph 5.28. **Contractor** shall direct specific attention in writing to revisions other than the corrections called for by **Engineer** on previous submittals.
- 5.27.3 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.
- 5.27.4 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.
- 5.28 **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 5.26 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 5.25.
- 5.29 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:***

- 5.30 **Contractor** shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with **Department**. No work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by Article 14 of the General Conditions or as **Contractor** and **Department** may otherwise agree in writing.

#### ***Weather Protection:***

- 5.31 **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:***

- 5.32 **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.
- 5.33 **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:***

- 5.34 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:***

- 5.35 **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:***

- 5.36 **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:***

- 5.37 **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 that of the former **Engineer**.
- 7.3 **Department** shall furnish the data required of **Department** under the Contract Documents promptly 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 Status During Construction***

#### ***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 and within 14 days maximum such 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. If **Contractor** believes that a written clarification or interpretation justifies an increase in Contract Price or an extension in Contract Time, **Contractor** shall be required to deliver a written notice thereof to **Engineer** and **Department** 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, 11 and 15 of the General Conditions.

### ***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 5.23 through 5.29 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 15 days after the date of any such decision, **Contractor** delivers to **Department** and to **Engineer** written notice of intention to dispute such a decision.

***Decisions on Disputes:***

- 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**. Disputes 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, and disputes under Articles 9, 10, 11 and 15 of the General Conditions 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 each such claim, dispute or other matter shall be delivered by **Contractor** to **Engineer** and **Department** within fifteen days after the occurrence of the event giving rise thereto. Written data supporting such dispute or other matters shall be submitted to **Department** within forty-five days after such occurrence, unless **Department** allows an extension of time to submit additional information.

***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 Without invalidating the Agreement, **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 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 5.22 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 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 15 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 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 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 5.22 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 (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 9 and 10 and 15 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 9, 10, 11 and 15 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 9, 10, 11 and 15 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 9, 10, 11 and 15 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's** services related thereto, 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 9, 10, 11 and 15. 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 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**; or
- 14.3.9 If **Contractor** otherwise violates in any substantial way any provision of the Contract Documents;

**Department** may, after giving **Contractor** and its surety seven days written notice and to the extent permitted by Federal and New York State Law, terminate the services of **Contractor**, exclude **Contractor** from the site and take possession of the Work and of all **Contractor's** tools, appliances, construction equipment and machinery at the site and use the same to the full extent they could be used by **Contractor** without liability to **Contractor** for trespass or conversion, incorporate in the work all materials and equipment stored at the site or for which

**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.

- 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 Upon seven days written notice to **Contractor** and **Engineer**, **Department** may, without cause and without prejudice to any other right or remedy, elect to abandon the Work and terminate the Agreement. In such case, **Contractor** shall be paid for all Work 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 5.30 to carry on the Work in accordance with the progress schedule and without delay during disputes and disagreements with **Department**.

***ARTICLE 15 - Disputes***

***Giving Notice:***

- 15.1 All claims, counterclaims, disputes and other matters in question between **Department** and **Contractor**, arising out of or relating to the Contract Documents or the breach thereof (hereafter referred to as claims) except for claims which have been waived by the making or acceptance of final payment as provided in paragraph 13.11, shall be resolved under this Article.
- 15.1.1 A voucher, invoice, or other routine request for payment that is not in dispute when submitted is not a claim under this Article. Such a submission may be converted to a claim under this Article by complying with the requirements of this Article, if it is disputed either as to liability or amount or is not acted upon in a reasonable time.
- 15.2 A claim by **Contractor** shall be made in writing and submitted to **Department** for evaluation with a copy to **Engineer**.

- 15.3 A written demand or written assertion by **Contractor** seeking the payment of money exceeding \$10,000 is not a claim under this Article until certified as required below. For claims exceeding \$10,000 **Contractor** shall submit with the claim a certification that:
- 15.3.1 The claim is made in good faith,
  - 15.3.2 Supporting Cost and Pricing Data are current, accurate, and complete to the best of the **Contractor's** knowledge and belief, and
  - 15.3.3 The amount of the claim accurately reflects the adjustments in Contract Price or Contract Time which **Department** has agreed to or for which **Contractor** believes **Department** is liable.
- 15.4 The **Contractor's** certification shall be executed by **Contractor's** Authorized Representative specified in the Contract Documents.
- 15.5 For claims of \$10,000 or less, **Department** shall render a decision if requested in writing by **Contractor**. For **Contractor** certified claims over \$10,000, **Department** shall decide the claim or notify **Contractor** of the date by which the decision will be made.
- 15.6 **Department's** decision shall be final unless **Contractor** initiates legal action within 120 days of **Department's** final decision.
- 15.7 **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.
- 15.8 **Contractor** agrees that all claims shall be subject to resolution pursuant to **Department** procedures as described in the Disputes article of the Agreement.

## **ARTICLE 16 - Miscellaneous**

### **Notice and Service:**

- 16.1 All notices, demands, requests, instructions, approvals and claims shall be in writing.
- 16.1.1 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.
  - 16.1.2 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.

- 16.1.3 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.
- 16.1.4 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:***

- 16.2 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:***

- 16.3 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.
- 16.4 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.
- 16.5 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:***

- 16.6.1 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.

- 16.6.2 **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.
- 16.6.3 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:***

- 16.7.1 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.
- 16.7.2 These documents will be furnished to **Department** on the forms included with the Contract Documents.
- 16.7.3 **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:***

- 16.8 **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:***

- 16.9 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:***

- 16.10.1 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.

16.10.2 **Contractor** shall make available at **Contractor's** office at all reasonable times the materials described in paragraph 16.10.1 above, for examination, audit, or reproduction, until 6 years after final payment under this Contract.

16.10.2.1 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.

16.10.2.2 Records pertaining to appeals under Article 15 of Section 8, "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.

16.10.3 A provision stating that all the requirements of this Article of Section 8, "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:***

16.11.1 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:

16.11.1.1 Based on adequate price competition;

16.11.1.2 Based on established catalog or market prices of commercial items sold in substantial quantities to the general public, or

16.11.1.3 Set by New York State law.

16.11.2 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.

- 16.11.3 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.
- 16.11.4 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:
- 16.11.4.1 Based on adequate price competition;
  - 16.11.4.2 Based on established catalog or market prices of commercial items sold in substantial quantities to the general public; or
  - 16.11.4.3 Set by New York State law.
- 16.11.5 **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 16.11.4 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.
- 16.11.6 **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:***

- 16.12.1 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.
- 16.12.2 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:***

- 16.13.1 **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.

- 16.13.2 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 16.13.1.

***Unlawful Provisions Deemed Stricken:***

- 16.14.1 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:***

- 16.15.1 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:***

- 16.16 **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:
- 16.16.1 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,
- 16.16.2 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:***

- 16.17 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.





**SECTION IX**

***Supplementary Conditions***



These Supplementary Conditions modify:

**Section IV - Supplementary Bidding Information and Requirements:**

Article 9, page 2 - Wage Rates

Add the following, **“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.”**

**Section VIII - General Conditions:**

Articles 4.2.2.1 and 4.2.2.2

The CONTRACTOR shall name the Atlantic Bus Company and the New York City Department of Environmental Protection as additional insured and shall provide each of those entities with certificates of insurance indicating same.

Article 5.35

Article is amended to require biweekly (once every two weeks) project meetings rather than “weekly” project meetings.”



## 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 timeframes 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.

***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 toweling 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.





## **SPEC 00003**

### **MINIMUM REQUIREMENTS FOR HEALTH AND SAFETY**

#### **1. GENERAL**

##### **1.1 Description**

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.

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.

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**.

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**.

##### **1.2 Basis**

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.

The safety and health of the public and project personnel and the protection of the environment will take precedence over cost and schedule considerations for all project work. Any additional costs will be considered only after the cause for suspension of operations is addressed and work is resumed. The **ENGINEER's** on-site representative and the **CONTRACTOR's** Superintendent will be kept

appraised, by the Safety Officer, of conditions which may adversely affect the safety and health of project personnel and the community. The **ENGINEER** may stop work for health and safety reasons. If work is suspended for health and/or safety reasons, it shall not resume until approval is obtained from the **ENGINEER**. The cost of work stoppage due to health and safety is the responsibility of the **CONTRACTOR** under this Contract.

### 1.3 Health and Safety Definitions

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

- A. 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.
- B. Authorized Visitor: Authorized visitors who work for the State of New York shall receive approval to enter the site from the **DEPARTMENT**. The Safety Officer has primary responsibility on determining who is qualified and may enter the site. The Site Safety Officer will only allow authorized visitors with written proof that they have been medically certified and trained in accordance with 29 CFR 1910.120 to enter the contamination reduction zone and/or exclusion area.
- C. 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.
- D. Safety Officer (SO): The SO will be the **CONTRACTOR's** on-site person who will be responsible for the day-to-day implementation and enforcement of the HASP.
- E. Health and Safety Technicians (HST): The HST(s) will be the **CONTRACTOR's** on-site personnel who will assist the SO in the implementations of the HASP, in particular, with air monitoring in active work areas and maintenance of safety equipment.
- F. Medical Consultant (MC): The MC is a physician retained by the **CONTRACTOR** who will be responsible for conducting physical exams as specified under the Medical Monitoring Programs in this section.
- G. Project Site: The area designated on the Site Sketch, which includes the Contractor Work Area.
- H. Contractor Work Area: An area of the project site including the Support Zone, access road, staging area, and Exclusion Zone.
- I. Contractor Support Zone: An area of the Contractor Work Area outside the Exclusion Zone, accessible for deliveries and visitors. No persons, vehicles, or equipment may enter these areas from the Exclusion Zone without having gone through specified decontamination procedures in the adjacent Contamination Reduction Zone.

- J. Staging Areas: Areas within the Exclusion Zone for the temporary staging of contaminated soil and debris.
- K. Exclusion Zone: The innermost area within the Contractor Work Area that encloses the area of contamination. Protective clothing and breathing apparatus as specified in the health and safety requirements and in the **CONTRACTOR's** approved HASP must be worn.
- L. Contamination Reduction Zone: An area at the Exit Point of the Exclusion Zone through which all personnel, vehicles, and equipment must enter and exit. All decontamination of vehicles and equipment and removal of personal protective clothing and breathing apparatus must take place at the boundary between the Exclusion Zone and the Contamination Reduction Zone.
- M. **ENGINEER's** on-site representative: The **ENGINEER's** representative assigned responsibility and authority by the **ENGINEER** for day-to-day field surveillance duties.
- N. Work: Work includes all labor, materials, and other items that are shown, described, or implied in the Contract and includes all extra and additional work and material that may be ordered by the **ENGINEER**.
- O. Monitoring: The use of direct reading field instrumentation to provide information regarding the levels of gases and/or vapor, which are present during remedial action. Monitoring shall be conducted to evaluate employee exposures to toxic materials and hazardous conditions.

#### 1.4 Responsibilities

The **ENGINEER** will be responsible for the following:

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

The **CONTRACTOR** will be responsible for the following:

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

The **CONTRACTOR** shall:

- A. Employ an SO who shall be assigned full-time responsibility for all tasks herein described under this HASP. In the event the SO cannot meet his responsibilities, the **CONTRACTOR** shall be responsible for obtaining the services of an "alternate" SO meeting the minimum requirements and qualifications contained herein. No work will proceed on this project in the absence of an approved SO.

- B. Ensure that all project personnel have obtained the required physical examination prior to and at the termination of work covered by the contract.
- C. Be responsible for the pre-job indoctrination of all project personnel with regard to the HASP and other safety requirements to be observed during work, including but not limited to (a) potential hazards, (b) personal hygiene principles, (c) personal protection equipment, (d) respiratory protection equipment usage and fit testing, and (e) emergency procedures dealing with fire and medical situations.
- D. Be responsible for the implementation of this HASP, and the Emergency Contingency and Response Plan.
- E. Provide and ensure that all project personnel are properly clothed and equipped and that all equipment is kept clean and properly maintained in accordance with the manufacturer's recommendations or replaced as necessary.
- F. Alert appropriate emergency services before starting any hazardous work and provide a copy of the Emergency Contingency Plan to the respective emergency services.
- G. Have sole and complete responsibility of safety conditions for the project, including safety of all persons (including employees).
- H. Be responsible for protecting the project personnel and the general public from hazards due to the exposure, handling, and transport of contaminated materials. Barricades, lanterns, roped-off areas, and proper signs shall be furnished in sufficient amounts and locations to safeguard the project personnel and public at all times.
- I. Ensure all OSHA health and safety requirements are met.
- J. Maintain a chronological log of all persons entering the project site. It will include organization, date, and time of entry and exit. Each person must sign in and out.

### **1.5 Health and Safety Plan**

The HASP is a deliverable product of this project. The **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):

- A. Health and Safety Organization.
- B. Site Description and Hazard Assessment.
- C. Training.
- D. Medical Surveillance.
- E. Work Areas.

- F. Standard Operating Safety Procedures and Engineering Controls.
- G. Personal Protective Equipment (PPE).
- H. Personnel Hygiene and Decontamination.
- I. Equipment Decontamination.
- J. Air Monitoring.
- K. Emergency Equipment/First Aid Requirements.
- L. Emergency Response and Contingency Plan.
- M. Confined-Space Entry Procedures.
- N. Spill Containment Plan.
- O. Heat & Cold Stress.
- P. Record Keeping.
- Q. Community Protection Plan.

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

#### **1.6 HEALTH AND SAFETY ORGANIZATION**

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

Health and Safety Coordinator: The **CONTRACTOR** must retain the services of a Health and Safety Coordinator (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:

- A. Responsibility for the overall development and implementation of the HASP.
- B. Responsibility for the initial training of on-site workers with respect to the contents of the HASP.
- C. Availability during normal business hours for consultation by the Safety Officer.

- D. Availability to assist the Safety Officer in follow-up training and if changes in site conditions occur.

**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:

- A. Responsibility for the implementation, enforcement, and monitoring of the health and safety plan.
- B. Responsibility for the pre-construction indoctrination and periodic training of all on-site personnel with regard to this safety plan and other safety requirements to be observed during construction, including:
  - 1. Potential hazards.
  - 2. Personal hygiene principles.
  - 3. PPE.
  - 4. Respiratory protection equipment usage and fit testing.
  - 5. Emergency procedures dealing with fire and medical situations.
  - 6. Conduct daily update meetings in regard to health and safety.
- C. Responsibility for alerting the **ENGINEER's** on-site representative prior to the **CONTRACTOR** starting any particular hazardous work.
- D. Responsibility for informing project personnel of the New York State Labor Law Section 876 (Right-to-Know Law).
- E. Responsibility for the maintenance of separation of Exclusion Zone (Dirty) from the Support Zone (Clean) areas as described hereafter.

**Health and Safety Technicians:** The Health and Safety Technician (HST) must have one year of hazardous waste site or related experience and be knowledgeable of applicable occupational health and safety regulations. The HST must be certified in CPR and first aid. The HST will be under direct supervision of the SO during on-site work. The HST must be familiar with the operations, maintenance

and calibration of monitoring equipment used in this remediation. An HST will be assigned to each work crew or task in potentially hazardous areas.

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.

## **1.7 SITE DESCRIPTION AND HAZARD ASSESSMENT**

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

- A. 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.
- B. Biological Hazards: A qualitative evaluation of biological hazards consisting of the elements listed for chemical hazards.
- C. Physical Hazards: The **CONTRACTOR** shall assess the potential for physical hazards affecting personnel during the performance of on-site work.

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

## **1.8 TRAINING**

### **OSHA Training**

The **CONTRACTOR** is responsible to ensure that all project personnel have been trained in accordance with OSHA 1910.120 regulations.

The **CONTRACTOR** shall ensure that all employees are informed of the potential hazards of toxic chemicals to the unborn child and of the risks associated with working at the project site.

The **CONTRACTOR** shall be responsible for, and guarantee that, personnel not successfully completing the required training are not permitted to enter the project site to perform work.



## **Safety Meetings**

The SO will conduct daily safety meetings 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.

Additional safety meetings will be held on an as-required basis.

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.

## **1.9 MEDICAL SURVEILLANCE**

The **CONTRACTOR** shall utilize the services of a Physician to provide the minimum medical examinations and surveillance specified herein. The name of the Physician and evidence of examination of all **CONTRACTOR** and Subcontractor on-site personnel shall be kept by the SO.

**CONTRACTOR** and Subcontractor project personnel involved in this project shall be provided with medical surveillance prior to onset of work. Immediately at the conclusion of this project, and at any time there is suspected excessive exposure to substances that would be medically detectable, all project personnel will be medically monitored. The costs for these medical exams, including state field representatives, (four maximum) are to be borne by the **CONTRACTOR**.

Physical examinations are required for:

- A. Any and all personnel entering hazardous or transition zones or performing work that required respiratory protection.
- B. All **CONTRACTOR** personnel on site who are dedicated or may be used for emergency response purposes in the Exclusion Zone.
- C. **CONTRACTOR** supervisors entering hazardous or transition zones, or on site for more than 16 hours during the length of the contract.

Physical examinations are not required for people making periodic deliveries provided they do not enter hazardous or transition zones.

In accordance with good medical practice, the examining Physician or other appropriate representative of the Physician shall discuss the results of such medical examination with the individual examined. Such discussion shall include an explanation of any medical condition that the Physician believes required further evaluation or treatment and any medical condition which the Physician believes would be adversely affected by such individual's employment at the project site. A written report of such examination shall be transmitted to the individual's private physician upon written request by the individual.

The examining Physician or Physician group shall notify the SO in writing that the individual has received a medical examination and shall advise the SO as to any specific limitations upon such individual's ability to work at the project site that were identified as a result of the examination. Appropriate action shall be taken in light of the advice given pursuant to this subparagraph.

The physical examination shall also include but not be limited to the following minimum requirements:

- A. Complete blood profile;
- B. Blood chemistry to include: chloride, CO<sub>2</sub>, potassium, sodium, BUN, glucose, globulin, total protein, albumin, calcium, cholesterol, alkaline phosphatase, triglycerides, uric acid, creatinine, total bilirubin, phosphorous, lactic dehydrogenase, SGPT, SGOT;
- C. Urine analysis;
- D. "Hands on" physical examination to include a complete evaluation of all organ systems including any follow-up appointments deemed necessary in the clinical judgement of the examining physician to monitor any chronic conditions or abnormalities;
- E. Electrocardiogram;
- F. Chest X-ray (if recommended by examining physician in accordance with good medical practice);
- G. Pulmonary function;
- H. Audiometry - To be performed by a certified technician, audiologist, or physician. The range of 500 to 8,000 hertz should be assessed.
- I. Vision screening - Use a battery (TITMUS) instrument to screen the individual's ability to see test targets well at 13 to 16 inches and at 20 feet. Tests should include an assessment of muscle balance, eye coordination, depth perception, peripheral vision, color discrimination, and tonometry.
- J. Tetanus booster shot (if no inoculation has been received within the last five years); and
- K. Complete medical history.

#### **1.10 Site Control**

##### **Security**

Security shall be provided and maintained by the **CONTRACTOR** as specified in Section 01540.

Security identification, specific to the project site, shall be provided by the **CONTRACTOR** for all project personnel entering the project site. The **CONTRACTOR** shall be responsible for and ensure that such identification shall be worn by each individual, visible at all times, while the individual is on the site. Vehicular access to the site, other than to designated parking areas, shall be restricted to authorized vehicles only.

Use of on-site designated parking areas shall be restricted to vehicles of the **ENGINEER**, **ENGINEER's** on-site representative, **CONTRACTOR**, subcontractor, and service personnel assigned to the site and actually on duty but may also be used on short-term basis for authorized visitors.

The **CONTRACTOR** shall be responsible for maintaining a log of security incidents and visitor access granted.

The **CONTRACTOR** shall require all personnel having access to the project site to sign-in and sign-out, and shall keep a record of all site access.

All approved visitors to the site shall be briefed by the SO on safety and security, provided with temporary identification and safety equipment, and escorted throughout their visit.

Site visitors shall not be permitted to enter the hazardous work zone unless approved by the **DEPARTMENT** with appropriate site access agreement.

Project sites shall be posted, "Warning Hazardous Work Area, Do Not Enter Unless Authorized," and access restricted by the use of a snow fence or equal at a minimum. Warning signs shall be posted at a minimum of every 500 feet.

### **Site Control**

The **CONTRACTOR** shall provide the following site control procedures as a minimum:

- A site map;
- A map showing site work zones;
- The use of a "buddy system"; and
- Standard operating procedures or safe work practices.

### **Work Areas**

The **CONTRACTOR** will clearly lay out and identify work areas in the field and will limit equipment, operations and personnel in the areas as defined below:

- A. Exclusion Zone (EZ) - This will include all areas where potential environmental monitoring has shown or it is suspected that a potential hazard may exist to workers. The level of PPE required in these areas will be determined by the SO after air monitoring and on-site inspection has been conducted. The area will be clearly delineated from the decontamination area. As work within the hazardous zone proceeds, the delineating boundary will be relocated as necessary to prevent the accidental contamination of nearby people and equipment. The Exclusion Zone will be delineated by fencing (e.g., chain link, snow fencing, or orange plastic fencing).
- B. Contamination Reduction Zone - This zone will occur at the interface of "Hazardous" and "Clean" areas and will provide for the transfer of equipment and materials from the Support Zone to the Exclusion Zone, the decontamination of personnel and clothing prior to entering the "Clean" area, and for the physical segregation of the "Clean" and "Hazardous" areas. This area will contain all required emergency equipment, etc. This

area will be clearly delineated by fencing (e.g., chain link, snow fencing, or orange plastic fencing). It shall also delineate an area that although not contaminated at a particular time may become so at a later date.

- C. Support Zone - This area is the remainder of the work site and project site. The Support Zone will be clearly delineated and procedures implemented to prevent active or passive contamination from the work site. The function of the Support Zone includes:
1. An entry area for personnel, material and equipment to the Exclusion Zone of site operations through the Contamination Reduction Zone;
  2. An exit for decontamination personnel, materials and equipment from the "Decontamination" area of site operations;
  3. The housing of site special services; and
  4. A storage area for clean, safety, and work equipment.

### **1.11 Standard Operating Safety Procedures, Engineering Controls**

#### **GENERAL SOP**

- A. The **CONTRACTOR** will ensure that all safety equipment and protective clothing is kept clean and well maintained.
- B. All prescription eyeglasses in use on this project will be safety glasses and will be compatible with respirators. No contact lenses shall be allowed on site.
- C. All disposable or reusable gloves worn on the site will be approved by the SO.
- D. During periods of prolonged respirator usage in contaminated areas, respirator filters will be changed upon breakthrough. Respirator filters will always be changed daily.
- E. Footwear used on site will be covered by rubber overboots or booties when entering or working in the Exclusion Zone area or Contamination Reduction Zone. Boots or booties will be washed with water and detergents to remove dirt and contaminated sediment before leaving the Exclusion Zone or Contamination Reduction Zone.
- F. All PPE used on site will be decontaminated or disposed of at the end of the work day. The SO will be responsible for ensuring decontamination of PPE before reuse.
- G. All respirators will be individually assigned and not interchanged between workers without cleaning and sanitizing.
- H. **CONTRACTOR**, subcontractor and service personnel unable to pass a fit test as a result of facial hair or facial configuration shall not enter or work in an area that requires respiratory protection.

- I. The **CONTRACTOR** will ensure that all project personnel shall have vision or corrected vision to at least 20/40 in one eye.
- J. On-site personnel found to be disregarding any provision of this plan will, at the request of the SO, be barred from the project.
- K. Used disposable outerwear such as coveralls, gloves, and boots shall not be reused. Used disposable outerwear will be removed upon leaving the hazardous work zone and will be placed inside disposable containers provided for that purpose. These containers will be stored at the site at the designated staging area and the **CONTRACTOR** will be responsible for proper disposal of these materials at the completion of the project. This cost shall be borne by the **CONTRACTOR**.
- L. Protective coveralls that become torn or badly soiled will be replaced immediately.
- M. Eating, drinking, chewing gum or tobacco, smoking, etc., will be prohibited in the hazardous work zones and neutral zones.
- N. All personnel will thoroughly cleanse their hands, face, and forearms and other exposed areas prior to eating, smoking or drinking.
- O. Workers who have worked in a hazardous work zone will shower at the completion of the work day.
- P. All personnel will wash their hands, face, and forearms before using toilet facilities.
- Q. No alcohol, firearms or drugs (without prescriptions) will be allowed on site at any time.
- R. All personnel who are on medication should report it to the SO who will make a determination whether or not the individual will be allowed to work and in what capacity. The SO may require a letter from the individual's personal physician stating what limitations (if any) the medication may impose on the individual.

### **Engineering Controls - Air Emissions**

The **CONTRACTOR** shall provide all equipment and personnel necessary to monitor and control air emissions.

### **1.12 Personal Protective Equipment**

#### **General**

The **CONTRACTOR** shall provide all project personnel with the necessary safety equipment and protective clothing, taking into consideration the chemical wastes at the site. The **CONTRACTOR** shall supply the **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.

### **Levels of Protection**

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

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.

### 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.

### Self-Contained Breathing Apparatus

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.

### **Disposable Coveralls**

The **CONTRACTOR** shall provide, as necessary, protective coveralls for all project personnel each day with extra sets provided for authorized visitors. The coveralls shall be of the disposable type made of Tyvek or equivalent material, and shall be manufactured/supplied by Durafab, Koppler, or other appropriate manufacturers. To protect project personnel from exposure to liquids, splash-resistant suits (Saranex suits, from appropriate manufacturers) shall be provided. Ripped suits will be immediately replaced after all necessary decontamination has been completed to the satisfaction of the SO.

### **Hard Hat**

The **CONTRACTOR** shall provide and maintain one hard hat per person on site (authorized visitors included). The hard hats shall comply with OSHA Health and Safety Standards (29 CFR 1910.135).

### **Face Shields**

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.

### **Work Clothing**

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.

### **Escape-Type Respirator**

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.

### **Full Face Organic Vapor Respirator**

The **CONTRACTOR** shall provide and maintain a dedicated air-purifying organic vapor respirator per person working in hazardous work and neutral work zones. The respirator shall be of the full-face canister type with cartridges appropriate for the respiratory hazards. Respirators and cartridges shall be MSHA/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).

#### **Gloves (outer)**

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.

#### **Gloves (inner)**

The **CONTRACTOR** shall supply Latex or equivalent surgical gloves to be worn inside the outer gloves.

#### **Boots (inner)**

The **CONTRACTOR** shall supply one pair of safety shoes or boots per workman and shall be of the safety-toe type meeting the requirements of 29 CFR 1910.136.

#### **Boots (outer)**

The **CONTRACTOR** shall provide and maintain one pair of overshoes for the on-site person entering a hazardous work area. The overshoes shall be constructed of rubber and shall be 12 inches high minimum.



<b>PERSONAL PROTECTIVE EQUIPMENT SPECIFICATIONS</b>				
<b>Description</b>	<b>Manufacturer</b>	<b>Model Number</b>	<b>Size</b>	<b>Comments</b>
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**

#### **On-Site Hygiene Facility**

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.

### **Portable "Boot Wash" Decontamination Equipment**

The **CONTRACTOR** shall provide a portable decontamination station, commonly referred to as a "Boot Wash" facility for each hazardous work zone requiring decontamination for project personnel. These facilities shall be constructed to contain spent wash water, contain a reservoir of clean wash water, a power supply to operate a pump for the wash water, a separate entrance and exit to the decontamination platform, with the equipment being mobile, allowing easy transport from one hazardous work zone to the next. All such wash water shall be disposed of at the dewatering facility. An appropriate detergent such as trisodium phosphate shall be used.

### **Personnel Decontamination**

The **CONTRACTOR** shall provide full decontamination facilities at all hazardous zones. Decontamination facilities must be described in detail in the HASP.

### **Disposal of Spent Clothing and Material**

Contaminated clothing, used respirator cartridges and other disposable items will be put into drums/containers for transport and proper disposal in accordance with TSCA and RCRA requirements.

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.

The **CONTRACTOR** is responsible for the proper container packaging, labeling, transporting, and disposal.

## **1.14 Equipment Decontamination**

### **General**

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.

Decontamination shall take place within the designated equipment and materials decontamination area. The decontamination shall consist of degreasing (if required), followed by high-pressure, hot-water cleaning, supplemented by detergents as appropriate. Wash units shall be portable, high-pressure with a self-contained water storage tank and pressurizing system (as required). Each unit shall be capable of heating wash waters to 180 degrees Fahrenheit and providing a nozzle pressure of 150 psi.

Personnel engaged in vehicle decontamination will wear 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.

### **Decontamination Station**

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.

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.

Shop drawings of the decontamination pad shall be submitted to the **ENGINEER** for approval.

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. A 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  $1.0 \times 10^{-7}$  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.

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**

#### **General**

The **CONTRACTOR** shall develop, as part of the HASP, an air monitoring program (AMP). The purpose of the AMP is to determine that the proper level of personnel protective equipment is used, to document that the level of worker protection is adequate, and to assess the migration of contaminants to off-site receptors as a result of site work.

The **CONTRACTOR** shall supply all personnel, equipment, facilities, and supplies to develop and implement the air monitoring program described in this section. Equipment shall include at a minimum real-time aerosol monitors, depending on work activities and environmental conditions.

The **CONTRACTOR's** AMP shall include both real-time and documentation air monitoring (personal and 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.

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.

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.

During the progress of active remedial work, the **CONTRACTOR** will monitor the quality of the air in and around each active hazardous operation with real-time instrumentation prior to personnel entering these areas. Sampling at the hazardous work site will be conducted on a continuous basis. Any departures from general background will be reported to the SO prior to entering the area. The SO will determine when and if operations should be shut down.

Air monitoring (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.

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.

## Action Levels

The **CONTRACTOR** is responsible for developing level of protection site action levels for organic vapors and/or inorganic species.

The SO, **CONTRACTOR**, and their personnel will be responsible for implementing, maintaining and enforcing the respirator program.

In addition to these on-site action levels, the following action levels will be established for work area and perimeter monitoring of particulates. If the following levels are attained at the perimeter of the exclusion zone, then work will cease until engineering controls bring levels down to acceptable limits. These levels are general and shall be used as minimum action levels. The **CONTRACTOR** shall develop site-specific work area and perimeter monitoring action levels based on contaminants found in the work areas.

Parameter	Action Level	Action
Total particulates	2.5 times background and/or greater than 150 µg/m <sup>3</sup>	Work ceases until mitigated
Visible Dust	Visible dust as determined by the <b>ENGINEER</b> .	Work ceases until mitigated

(Continued on next page)

The following action levels shall be used as minimum action levels for organic vapors and odors.

Parameter	Action Level	Action
Total Organic Vapors	5 ppm at work zone	Workers use respirators
	25 ppm at work zone	Work ceases until mitigated
Odors	Noticable odors outside the exclusion zone as determined by the <b>ENGINEER</b> .	Work ceases until mitigated

### Real-Time Monitoring

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).

Real-time monitoring shall be conducted using the following equipment:

Organic vapor photoionizers shall be Photovac TIP, total organic vapor analyzer as manufactured by Photovac International, 739B Park Avenue, Huntington, New York 11743 or equal. The **CONTRACTOR** shall provide one Photovac TIP for each and every hazardous work zone operation.

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 ( $PM_{10}$ ) with the following minimum performance standards:

Object to be measured: Dust, Mists, Aerosols

Measurement Ranges: 0.001 to 400  $mg/m^3$  (1 to 400,000  $\mu g/m^3$ )

Precision (2-sigma) at constant temperature:

+/- 10  $\mu g/m^3$  for one second averaging; +/- 1.5  $\mu g/m^3$  for sixty second averaging

Accuracy:

+/- 5% of reading +/- precision (Referred to gravimetric calibration with SAE fine test dust (mmd= 2 to 3  $\mu m$ ,  $g = 2.5$ , as aerosolized)

Resolution: 0.1% of reading or 1  $\mu g/m^3$ , whichever is larger

Particle Size Range of Maximum Response: 0.1-10  $\mu$

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.

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  $PM_{10}$  standard, the instrument could be used in the passive mode without a pump to provide readings in the 0.1 to 10  $\mu$  range in the immediate vicinity of construction activities.

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  $\mu g/m^3$  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  $\mu g/m^3$  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  $\mu g/m^3$  above the upwind level. If at any time the measured particulate level at the work zone is more than 150  $\mu g/m^3$  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.

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.

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.

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  $PM_{10}$  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**.

### **Documentation Monitoring**

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 two samples will be selected by the **ENGINEER** for analysis.
- 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**.

### **Community Air Monitoring**

Real-time air monitoring, for particulate levels at the perimeter of the work area is necessary:

- A. Particulates should be continuously monitored upwind, downwind and within the work area at temporary particulate monitoring stations. If the downwind particulate level is 150 ug/m<sup>3</sup> greater than the upwind particulate level, then dust suppression techniques



must be employed. All readings must be recorded and be available for **ENGINEER's** review.

The **CONTRACTOR** shall install a meteorological station on site that will be capable of recording, at a minimum, wind velocity and direction.

## **1.16 Emergency Equipment and First Aid Requirements**

### **Communications**

The **CONTRACTOR** shall provide telephone communication at the site field office. Emergency numbers, such as police, sheriff, fire, ambulance, hospital, poison control, NYSDEC, EPA, NYSDOH, and utilities, applicable to this site shall be prominently posted near the telephone.

The **CONTRACTOR** shall establish a signaling system for emergency purposes.

### **Emergency Shower and Emergency Eye Wash**

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.

### **Fire Extinguishers**

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.

### **First Aid Kit**

The **CONTRACTOR** shall supply and locate in his project office and at each and every hazardous work zone one 24-unit (minimum size) "industrial" or "Contractor" first aid kit, required by OSHA requirements 29 CFR 1910.151. The first aid kit shall be manufactured/supplied by Norton, Scott, or other appropriate suppliers.

### **Emergency Inventory**

In addition to those items specified elsewhere, the SO will maintain the following inventory of equipment and protective clothing for use at the site in the event of emergencies.

- a. Washable coveralls;
- b. Gloves (outer);
- c. Gloves (inner);

- d. 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**

#### **Daily Work**

During the progress of work, the **CONTRACTOR** will monitor the quality of the air in and around each active hazardous operation prior to personnel entering these areas. Sampling shall be conducted on a continuous basis. Based on the air monitoring data, the proper level of protection will be chosen by the SO.

#### **Emergency Vehicle Access**

In the event that emergency services vehicles (police, fire, ambulance) need access to a location which is blocked by the working crew operations, those operations (equipment, materials, etc.) will be immediately moved to allow those vehicles access. Emergency crews will be briefed as to site conditions and hazards by the SO. All vehicles and personnel will be decontaminated prior to leaving the site.

The **CONTRACTOR** shall schedule a site briefing with the local Fire Department at the completion of mobilization to familiarize emergency response personnel with his operations and site layout.

#### **Personal Injury Response Plan**

In cases of personal injuries, the injured person or the crew personnel in charge will notify the SO. The SO will assess the seriousness of the injury, give first aid treatment if advisable, consult by telephone with a physician if necessary, and arrange for hospitalization if required. The SO will arrange for an ambulance if required.

If soiled clothing cannot be removed, the injured person will be wrapped in blankets for transportation to the hospital.

Personnel, including unauthorized personnel, having skin contact with chemically contaminated liquids or soils shall be flushed with water after any wet or soiled clothing has been removed.

These personnel should be observed by the SO to ascertain whether there are any symptoms resulting from the exposure. If there is any visible manifestation of exposure such as skin irritation, the project personnel will refer to a consulting physician to determine whether the symptoms were the result of a delayed or acute exposure, a secondary response to exposure such as skin infection, or occupational dermatitis. All episodes of obvious chemical contamination will be reviewed by the SO in order to determine whether changes are needed in work procedures.

### **Route to the Hospital**

The **CONTRACTOR** shall post in conspicuous places in the Support Zone a map with written directions to the nearest hospital or emergency medical treatment facility.

### **Fire Service**

The **CONTRACTOR** will make arrangements to take immediate fire fighting and fire protection measures with the local Fire Chief. If there is a fire, the crewmen or their person in charge will immediately call the SO. The SO will immediately call the fire personnel.

The air downwind from any fire or explosion will be monitored immediately in order to protect workers and the nearby community. If personal injuries result from any fire or explosion, the procedures outlined in the Personal Injury Response Plan are to be followed.

### **Master Telephone List**

The attached master telephone list will be completed and prominently posted at the field office. The list will have telephone numbers of all project personnel, emergency services including hospital, fire, police, and utilities. In addition, two copies with telephone numbers are to be given to the **DEPARTMENT** for emergency reference purposes.

<u>Emergency Service</u>	<u>Telephone Number</u>
Fire Department	911
Police Department	911
Ambulance	911
Hospital/Emergency Care Facility (Oswego Hospital)	(315) 349-5511
Poison Control Center	(800) 336-6997
Chemical Emergency Advice (CHEMTREC)	(800) 424-9300

NYSDEC Albany Office	Work Hours	(518) 457-7878
	After Hours	(800) 342-9296 (leave message)
NYSDEC Syracuse Office	Work Hours	(315) 426-7551
Oswego County Dept. of Health		(315) 349-3545
New York State Dept. of Health - Albany		(518) 402-7890
New York State Dept. of Health - Syracuse		(315) 426-7627

### 1.18 Heat Stress Monitoring

Site personnel who wear protective clothing allow body heat to be accumulated with an elevation of the body temperature. Heat cramps, heat exhaustion, and heat stroke can be experienced, which, if not remedied, can threaten life or health. Therefore, an American Red Cross 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.

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

One method of measuring the effectiveness of employees' rest-recovery regime is by monitoring the heart rate. The "Brouha guideline" is one such method:

- During a 3-minute period, count the pulse rate for the **last** 30 seconds of the first minute, the **last** 30 seconds of the second minute, and the **last** 30 seconds of the third minute.
- Double the count.

If the recovery pulse rate during the last 30 seconds of the first minute is at 110 beats/minute or less and the deceleration between the first, second, and third minutes is **at least** 10 beats/minute, the work-recovery regime is acceptable. If the employee's rate is above that specified, a longer rest period is required, accompanied by an increased intake of fluids.

In the case of heat cramps or heat exhaustion, "Gatorade" or its equivalent is suggested as part of the treatment regime. The reason for this type of liquid refreshment is that such beverages will return much-needed electrolytes to the system. Without these electrolytes, body systems cannot function properly, thereby increasing the represented health hazard.

This liquid refreshment will be stored in a cooler at the edge of the decontamination zone in plastic squeeze bottles. The plastic bottles will be marked with individual's names. Disposable cups with lids and straws may be used in place of the squeeze bottles. Prior to drinking within the decontamination zone, the project personnel shall follow the following decontamination procedures:

- A. Personnel shall wash and rinse their outer gloves and remove them.
- B. Personnel shall remove their hard hats and respirators and place on table.
- C. Personnel shall remove their inner gloves and place them on table.
- D. Personnel shall wash and rinse their face and hands.
- E. Personnel shall carefully remove their personal bottle or cup from the cooler to ensure that their outer clothes do not touch any bottles, cups, etc.
- F. The used bottle or cups will not be returned to the cooler, but will be placed in a receptacle or container to be cleaned or disposed of.
- G. Personnel shall replace their respirators, hard hats, gloves and tape gloves prior to re-entering the hazardous zone.

When personnel are working in situations where the ambient temperatures and humidity are high--and especially in situations where protection Levels A, B, and C are required--the SO must:

- Assure that all employees drink plenty of fluids ("Gatorade" or its equivalent);
- Assure that frequent breaks are scheduled so overheating does not occur; and
- Revise work schedules, when necessary, to take advantage of the cooler parts of the day (i.e., 5:00 a.m. to 1:00 p.m., and 6:00 p.m. to nightfall).

### **Cold Stress**

Whole-body protection shall be provided to all site personnel that have prolonged exposure to cold air. The right kind of protective clothing shall be provided to site personnel to prevent cold stress. The following dry clothing shall be provided by the **CONTRACTOR** as deemed necessary by the SO:

- Appropriate underclothing (wool or other);
- Outer coats that repel wind and moisture;

- Face, head, and ear coverings;
- Extra pair of socks;
- Insulated safety boots; and
- Glove liners (wool) or wind- and water-repellant gloves.

The SO will use the equivalent chill temperature when determining the combined cooling effect of wind and low temperatures on exposed skin or when determining clothing insulation requirements.

Site personnel working continuously in the cold are required to warm themselves on a regular basis in the on-site hygiene facility. Warm, sweet drinks will also be provided to site personnel to prevent dehydration. The SO shall follow the work practices and recommendations for cold stress threshold limit values as stated by the 1991-1992 Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices by the American Conference of Governmental Industrial Hygienists or equivalent cold stress prevention methods.

### **1.19 Logs, Reports and Record Keeping**

#### **Security Log**

A daily log of security incidents and visitors granted access to the site will be maintained, as well as a log of all personnel entering and exiting the site.

All approved visitors to the site will be briefed by the SO on safety and security, provided with temporary identification and safety equipment, and escorted throughout their visit. Site visitors will not be permitted to enter a hazardous work zone.

Project site shall be posted, "Warning: Hazardous Work Area, Do Not Enter Unless Authorized," and access restricted by the use of a snow fence.

#### **Safety Log**

The **CONTRACTOR's** SO will maintain a bound safety logbook. The log will include all health and safety matters on site and include, but not be limited to, the following information:

- Date and weather conditions on site;
- A description of the proposed work for the day;
- Times when site personnel arrive and depart;
- Air monitoring data;
- Heat and/or cold stress monitoring;
- Decontamination procedures;

- Type and calibration of air sampling/monitoring equipment used;
- Safety meeting summaries; and
- Accidents.

### **Emergency Or Accident Report**

Any emergency or accident will be reported immediately to the SO. The **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.

### **Daily Work Report**

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.

### **1.20 Posting Regulations**

The **CONTRACTOR** will post signs at the perimeter of the Exclusion Zone that state "Warning, Hazardous Work Area, Do Not Enter Unless Authorized." In addition, a notice directing visitors to sign in will be posted at the project site. Also, the **CONTRACTOR** will post a sign stating that any questions about the site should be directed to the New York State Department of Environmental Conservation.

Safety regulations and safety reminders will be posted at conspicuous locations throughout the project area. The following safety regulations and safety reminders are at a minimum to be posted around the job site.

### **SAFETY REGULATIONS**

(To be Posted for Project Personnel)

The main safety emphasis is on preventing personal **contact** with gases, soils, sludge and water. Towards that end, the following rules have been established.

## **Regulations**

- A. Eating, 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.

## **1.21 Community Protection**

### **A. General**

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.

### **A. Air Monitoring**

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.

Provide real-time air monitoring for volatile compounds and particulate levels as the perimeter of the work area as necessary. Include the following:

1. 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.
2. 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/m<sup>3</sup> 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**

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.

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

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.

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).

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.

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

Upon activation, the following shall be undertaken:

All Emergency Response Contracts as listed in the Subpart titled "Emergency Response and Contingency Plan" paragraph titled "Telephone List."

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.

Frequent air monitoring shall be conducted at 30 minutes intervals within the 20 Foot Zone. If two successive readings below action levels are measured, air monitoring may be halted or modified by the SO.

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/m<sup>3</sup>, 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, NYSDEC, and NYSDOH personnel to review.

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

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

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.

## 1.22 Confined Space Work

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.

The written program shall comply with 29 CFR 1910.146 and shall include the following:

- C. Implement methods to prevent unauthorized entry;
- D. Identify and evaluate the hazards of permit-required confined spaces before personnel entry;
- E. Develop and implement procedures for safe permit-required confined space entry;
- F. Provide the appropriate equipment to evaluate permit-required confined spaces;
- G. Evaluate permit-required confined spaces when entry operations are conducted;
- H. Provide at least one attendant outside the permit-required confined space which will be entered;
- I. Designate the personnel who will have active roles in entry operations;
- J. Develop and implement procedures for obtaining rescue and emergency services;
- K. Develop and implement a system for the preparation, issuance, use, and collection of entry permits;
- L. Develop and implement procedures to coordinate entry operations when personnel from more than one employer are working;
- M. Develop and implement procedures for concluding the entry;

- N. Review and revise entry operations if measures may not protect personnel; and
- O. Review the permit-required confined space program to ensure personnel are protected from the hazards present.

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***

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## **SECTION 01010      GENERAL**

The means, methods, procedures, and techniques to be used by the Contractor are the responsibility of the Contractor, and shall be developed by the Contractor to meet the intent of these Contract Documents.

The Contractor shall furnish all labor, materials, supplies and equipment to construct and fully complete the work as shown, or specified in the Contract Documents or as directed by the Department in the most substantial and workmanlike manner. The Contractor shall be responsible for the procurement and installation of compatible components, and shall perform all modifications necessary for the proper operation and guarantee of the equipment. Any alterations which are necessary to adequately and satisfactorily accommodate the equipment to be installed under this Contract shall be made by the Contractor at his own expense, in accordance with the Contract Documents.

The type and quantity of work are estimates that have been shown solely for the convenience of the Department, Engineer and the Contractor, and may not necessarily include all of the items of work required. Any work that is necessary or required to make the installation satisfactory and operable for its intended purpose, even though it is not included in the specifications or drawings, shall be performed as if it were described or shown.

Payment for the work shall be made at the prices stated in the Contract.

No payment shall be made for work performed by the Contractor to replace defective work, work which is not shown in the Contract Documents, work outside the limits of the contract and additional work necessary due to actions of the Contractor, unless ordered by the Department in writing.

All equipment supplied shall be in good working condition and clean.

All facilities shall be maintained in neat, clean, and good working order. Failure to maintain the facilities in neat, clean, and good working order shall be cause for the Engineer to withhold payment until necessary improvements are made.

All work shall be done in accordance with applicable federal, state and local regulations. The Health and Safety Plan, Sampling Plan, and Quality Assurance/Quality Control (QA/QC) Plan, and Operations and Maintenance Plan, and other required plans which are to be prepared by the Contractor, are subject to the Department/Engineer's review. If any regulation, the above referenced plans, and/or contract documents have contradicting requirements, then the most stringent requirement shall apply as determined by the Department/Engineer.

The proposed work site is an active bus maintenance and parking facility. The Contractor's work shall not interfere with the existing operations at the site. All work shall be coordinated with the bus company to minimize any disruptions. Work areas shall be limited as shown on Contract Drawing No. 5 - Contractor's Work Area and Use of Site.

## **1.1 BACKGROUND AND SITE DESCRIPTION**

### **A. Background**

The West Side Corporation site is a Class 2 inactive hazardous waste disposal site, listed as Site No. 2-41-026 on the New York State Department of Environmental Conservation (NYSDEC) Registry of Inactive Hazardous Waste Sites. It is located at 107-10 180<sup>th</sup> Street in Jamaica, Queens County, New York.

The 4.5 acre site is owned by the West Side Corporation, but is being currently leased by Atlantic Express Transportation (Atlantic) - a school bus company. Atlantic uses the site facilities (which includes an approximately 21,600 square foot brick building) for dispatching, repairing, and maintaining school buses.

The area surrounding the site is mixed commercial, residential. The site is bordered on the west and south by a maintenance and storage yard owned by the New York City Department of Environmental Protection (NYCDEP). Several production wells (Nos. 24, 24A, 24B, and 24C) now owned by NYCDEP (formerly owned and operated by the Jamaica Water Supply Company) are located offsite, but near the site. These wells were used during periods of high demand. Contaminants were detected in these wells in the past so they have been taken out of service. Well 24 was taken out of service in 1975, and wells 24A, 24B, and 24C were taken out of service in 1982.

The site was used to manufacture ceramic pipes and fittings until 1969. From 1969 to 1992, West Side Corporation operated the site as a storage and distribution center for Laundromat supplies, hangers, plastic garment bags, and most notably dry cleaning chemicals including tetrachloroethene (also known as perchloroethylene or PCE). Five 10,000 gallon Aboveground Storage Tanks (ASTs) used to store PCE were located outside and near the southeast corner of the onsite building. Improper handling of chemicals, led to the release of contamination, primarily PCE, to soil and groundwater.

The site was listed in the Registry in 1997 based on information contained in a subsurface investigation report prepared by EEA, Inc. After the owner(s) of the site declined to undertake remediation of the site, NYSDEC initiated a remedial investigation/feasibility study (RI/FS) in July 1998. Based on the results of the RI/FS, a Record of Decision (ROD) was issued in July 2000 for the remediation of Operable Unit No. (OU1) also known as the on-site operable unit. The Contract Documents address the remediation of OU1 which includes remediation of vadose zone (unsaturated) soils in Source Areas 1, 2, and 3 and saturated soils in a small area within Source Area 1 known as the DNAPL area.

## **1.2 SUMMARY OF PROPOSED WORK**

### **1.2.1 Main Work Items**

The following is a list of the main work items required of the Contractor by the Contract Documents.

1. Installation of subsurface structures and components required for soil vapor extraction including soil vapor extraction wells, vacuum monitoring points, and piping.
2. Construction of a soil vapor extraction treatment system.
3. Installation of subsurface structures and components required for electrical resistance heating including electrode/vapor recovery wells, temperature monitoring points and groundwater monitoring wells.
4. Construction of an electrical resistance heating treatment system.
5. Installation of above ground piping connecting the electrical resistance heating electrode/vapor recovery wells to the treatment system.
6. Construction of a discharge line from the electrical resistance heating treatment system to the sanitary sewer system on 180<sup>th</sup> Street.
7. Construction and installation of secure housing, utilities, and appurtenances as required.
8. Start-up, testing, and O&M for all systems.
9. Decommissioning the electrical resistance heating system.
10. After operating, monitoring and maintaining the soil vapor extraction system for time specified in the Contract Documents, the Contractor shall turn over the fully operational system to the Department for long-term operation.

#### **1.2.2 Sequence of Operation**

The remedial work at the site shall be carried out in a sequence similar to the following:

1. Mobilize any trailers, offices, and equipment to the site. Install all utilities as required.
2. Install subsurface structures for electrical resistance heating and soil vapor extraction systems.
3. Install electrical resistance heating and soil vapor extraction treatment systems and connect to subsurface structures.
4. Install discharge line from electrical resistance heating system to sewer.
5. Start-up test and operate electrical resistance heating system.
6. Decommission electrical resistance heating system.



7. Start-up test and operate soil vapor extraction system.
8. Restore all areas of site as required. Demobilize all Contractor owned trailers and equipment.
9. Turn over fully operational soil vapor extraction system to the Department for long-term operation.

### **1.3 SUMMARY OF SITE CONTAMINATION**

The following sections summarize contamination previously detected in the soil and groundwater at this site. Additional information regarding the site contamination can be found in the Limited Site Data document for the West Side Corporation site.

#### **1.3.1 Surface Soils**

Twelve surface soil samples were collected from locations at the Site and the adjacent property east of the Site. Five surface soil samples were collected from three perimeter locations at the Site (including two duplicate samples). Twelve VOC compounds were detected in the 17 surface soil samples analyzed, however, none of the compounds exceeded the standards, criteria, and guidance (SCGs). PCE was identified with the highest concentrations. The concentrations ranged from 360 to 920 ppb which are below the soil guidance value of 1400 ppb. PCE concentrations at the remaining 12 surface soil sample locations ranged from not detected to 170 ppb. Surface soil is not considered a significant threat at the site.

#### **1.3.2 Subsurface Soil**

Three areas of VOC subsurface soil contamination are apparent at the Site and have been designated Source Area 1, Source Area 2 and Source Area 3 are shown on Drawing 3. Subsurface soil samples with compounds identified exceeding cleanup goals were generally located at depths ranging from 1 to 8 feet below ground surface. These depths are from the unsaturated portion of the Site soils.

The on-site subsurface soil samples were reported to contain six VOCs exceeding cleanup goals. The compounds include PCE, TCE, 1,2-DCE, 1,1-DCE, acetone, and 2-butanone. Two VOCs, ethylbenzene, and xylenes, were detected at a location north of the site (upgradient) at concentrations greater than objectives. PCE was detected most frequently and at the highest concentrations. PCE concentrations in Source Area 1 (where ASTs were located) were as high as 5,900,000 ppb in shallow soils and as high as 7,100,000 ppb in deep soils. Dense non-aqueous phase liquid (DNAPL) was inferred to exist based upon the PCE concentrations and dye testing. However, direct observation of free product was not noted in soil samples collected from the unsaturated zone. PCE is present in an area estimated to be 31,600 square feet at a depth of about 1 foot to 12 feet below ground surface (bgs).

PCE concentrations in Source Area 2 were as high as 890,000 ppb. The area of contamination is approximately 5,000 square feet. The depth of PCE contamination extends to the water table, about 12 feet. The higher levels of PCE were detected in the upper 4 feet of the soils.

PCE concentrations in Source Area 3 were as high as 120,000 ppb. The area of contamination is approximately 2,000 square feet. The depth of the contamination was typically less than 4 feet.

### **1.3.3 Groundwater**

Nineteen VOC compounds were detected in the 70 groundwater samples collected. Seven compounds were identified at concentrations exceeding the groundwater standards. These compounds include PCE, TCE, 1,2-DCE, vinyl chloride, toluene, chloroform, and xylene (total).

PCE in groundwater exceeded the Class GA groundwater standard (PCE concentration of 5 ppb) over much of the Site. The most prominent area of shallow groundwater contamination appeared to originate in Source Area 1 near MW-8S. This area corresponds to the area of highest VOC contamination in the unsaturated soil. The concentration of PCE in MW-8S was reported at 210,000 ppb with decreasing concentrations identified downgradient.

Elevated concentrations of PCE, significantly higher than the groundwater standards, are also evident in the deep groundwater samples collected. The highest concentration of contaminants in deep groundwater was identified at MW-8D at 25,000 ppb. The data suggests that the bulk of the PCE contamination is in the upper 20 to 30 feet of the aquifer. The analytical data also indicates PCE contamination in groundwater north of the Site (i.e., PCE at 510 ppb in shallow groundwater and 1300 ppb in deep groundwater). The source of this contamination will be investigated as part of the work for Operable Unit No. 2.

Elevated concentrations of PCE were also detected in deep groundwater samples collected from off-site Geoprobe® soil borings near the former Jamaica Water supply well 24C. These PCE concentrations, averaging about 1,000 ppb, were observed to be typically ten times higher than the closest on-site deep groundwater PCE concentrations. These elevated PCE levels appear to be residual Site contamination that migrated from past supply well pumping activities.

Degradation compounds of PCE (TCE, 1,2-DCE and vinyl chloride) at concentrations exceeding their respective groundwater standards, were detected in both shallow and deep locations throughout the Site.

## **1.4 CONTRACTOR USE OF SITE**

Use or occupation of the site by the Contractor shall be limited to those areas identified as being contaminated and those areas as required for support activities as identified on Contract Drawing No. 5. Use of the site shall be restricted to operations essential to the remediation of the site. The Contractor shall not use any of the existing buildings or facilities at the site without the prior approval of the Department. The limits of the required work areas may be adjusted by the Contractor as the work progresses subject to the approval of the Department and/or Engineer, in accordance with the requirements of the Contract Documents. Additionally, the Contractor may be required to limit certain activities during the hours of the day when the facility is most active with the arrival and departure of busses.

## **1.5 REGULATORY REQUIREMENTS**

Remedial work at the West Side Corporation Site will proceed under the NYSDEC Superfund Program. The substantive requirements for all local and state regulations shall be met by the Contractor. Specifically, the requirements for air discharge (New York State Division of Air Resources, "Guidelines for the Control of Toxic Ambient Air Contaminants" [DAR-1, formerly Air Guide-1]) treated groundwater discharge (site-specific limits), buildings, utilities, etc. shall be met by the Contractor.

## **1.6 SPILL CONTROL**

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

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

In event of a spill, the Contractor shall take immediate action in accordance with the approved Health and Safety Plan, Contingency Plan, and local, state, and federal regulations. In addition, the Contractor shall notify the Engineer/Department immediately of the spill and keep the Engineer/Department informed of action being taken to comply with these requirements.

All spill material, adsorbents, etc. resulting from a spill shall be removed and disposed of accordingly.

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

## **1.7 ENVIRONMENTAL PROTECTION**

For the purpose of these Specifications, environmental protection is defined as the retention of the environment in its natural state to the greatest extent possible during all project activities and to preserve the natural appearance in its final condition. Environmental protection requires consideration of air, water, and land resources and involves elimination of noise, solid waste management and management of other pollutants. In order to prevent, and to provide for abatement and control of any environmental pollution arising from any activity in performance of this Contract, the Contractor and his subcontractors shall comply with all applicable Federal, State, and local laws and regulations.

Should the Engineer become aware of any apparent non-compliance with Federal, State or local environmental laws or regulations, the Engineer will notify the Contractor immediately of it in writing. The Contractor shall, after receipt of such notice, immediately inform the Engineer of his/her proposed corrective action and shall take such action as may be approved. If the Contractor

fails or refuses to comply promptly, the Engineer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to any such stop orders shall be used by the Contractor to apply for and/or justify an extension of time or reimbursement for additional costs or damages.

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

All wastes resulting from construction operations during this contract shall be removed and disposed in an approved location at no additional cost to the Department in accordance with applicable Federal, State, and local laws and the requirements of these Contract Documents. Such materials shall be removed from each Contractor Work Area before requesting final acceptance of the work.

The Contractor shall take all necessary measures in addition to those required by Federal, State, and local laws and regulations and the requirements of the Contract Documents to prevent the migration of dust off-site due to site activities.

The Contractor shall take all necessary measures in addition to those required by Federal, State and local laws and regulation and requirements of the Contract Documents to control odors as approved by the Engineer.

The entire site shall be left in a clean and tidy state prior to Final Payment.

Compliance with the provisions of this section by subcontractors shall be the responsibility of the Contractor.

## **1.8 PROTECTION OF WATER RESOURCES AND EROSION CONTROL**

The Contractor shall not pollute any ponds, lakes, marshes, wetlands, streams, rivers (i.e., waterways) with fuels, oils, bitumens, calcium chloride, acids, insecticides, herbicides or other harmful materials. The Contractor shall investigate and comply with all applicable Federal, State and local laws concerning pollution of waterways.

The Contractor shall submit a Surface Water Management Plan describing the systems to be implemented in complete detail pursuant to the requirements of the Contract Documents. No work will be permitted until this Plan has been approved. Any modifications to the Plan which may become necessary, as a result of the Contractor's methods of working or which may be required by the Engineer shall be submitted to the Engineer for approval. The Contractor shall adhere strictly to the provisions of the Plan as approved and shall control and manage surface water in every area where his/her activities take place.

The Surface Water Management Plan shall show and describe the surface water routes, collection and diversion features, and disposal or discharge locations for each phase of construction. This shall include rain water, snow, ice, and runoff controls.

The Plan shall show and describe measures to control surface water and to maintain separation of potentially contaminated water from uncontaminated water during each phase of construction. In addition, the Plan shall show and describe the measures to control runoff from migrating off-site.

Surface water from areas of the excavation which have not been disturbed and which do not show signs of exposed refuse or leachate seeps shall be prevented from entering areas where construction or work is in progress or contaminated areas.

Surface drainage from earthwork shall be held in suitable containers or the ground shall be graded to control erosion within acceptable limits. Temporary erosion and sediment control measures shall be provided and maintained until all work has been completed and permanent vegetation or cover has been established. The area of bare soil exposed at any given time by construction shall be restricted to a minimum and shall be approved by the Engineer. Trenching, excavation and backfill shall be constructed by selective placement of materials to eliminate silts or clays on the surface which may erode and migrate off-site. The Contractor shall comply with all applicable Federal, State and local laws concerning soil erosion and sediment control.

The Contractor shall take all reasonable measures as approved by Engineer to minimize interference with or disturbance of fish and wildlife.

## **1.9 CONTRACTOR QUALITY CONTROL**

The Contractor shall submit a Construction Quality Assurance Plan (CQAP) as part of the Work Plan for the site. The quality of all work shall be the responsibility of the Contractor. The Contractor shall provide and maintain an effective quality control program that complies with the Contract Documents and the approved CQAP.

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

Sufficient inspections and tests shall be performed on a continuous basis of all items of work, including work performed by subcontractors.

## **1.10 FIRE PREVENTION AND CONTROL**

The Contractor shall be responsible to coordinate activities at this site with the local Fire Department as outlined in Section 01030, Paragraph 1.17. In the event that a fire breaks out, or one is suspected, which cannot be controlled by available on-site equipment, the Contractor shall immediately inform the local fire department and then the Engineer, the Department, and the NYSDOH. All work that would endanger health or safety of on-site or off-site personnel shall be

stopped until the fire has been brought under control and the danger has passed, as determined by the Contractor and accepted by the Engineer.

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

## **1.11 SUBMITTALS**

The Contractor shall submit each required submittal document for Department/Engineer review in six (6) copies or as directed by the Department. Upon acceptance of a submittal, the Contractor shall deliver to the Department/Engineer up to six (6) copies of the approved submittal.

### **1.11.1 Bid Submittals**

Bid submittals shall be in accordance with Section III Article 5 and all other applicable sections of these specifications.

The Bid Breakdown required under Article 12 of Section III shall be submitted in accordance with the breakdown of items outlined in Section XII- Measurement and Payment.

### **1.11.2 Submittals After Notice of Apparent Low Bidder**

Submittals required after notice of apparent Low Bidder are outlined in Section III, Article 5. Further specifications on some of the technical submittals are detailed below.

1. **WORK PLAN:** The Contractor shall prepare a Work Plan with a description of all activities related to the construction, startup, and operation of the soil vapor extraction and electrical resistance heating treatment systems. The Work Plan shall also include process piping and instrumentation drawings, collection and treatment system layout drawings, and other information as required to describe the general design and intent of the system for site remediation.
2. **SCHEDULE:** The Contractor shall prepare a schedule of all site activities related to the construction, startup and operation of the soil vapor extraction and electrical resistance heating systems.
3. **HEALTH AND SAFETY PLAN** prepared in accordance with the requirements of Section 01030.
4. **SAMPLING PLAN:** The Contractor shall provide a sampling and analysis plan for all materials to be sampled. The sampling and analysis plan shall specifically address the following, at a minimum:
  - a. Groundwater (includes well development water) sampling and analysis.

- b. Subsurface soil/drill cuttings/drummed and staged soil sampling and analysis.
- c. Air sampling and analysis.
- d. Sampling and analysis of liquids generated from decontamination activities.
- e. Sampling and Sample Custody Procedures, along with any references used as a source for the procedure.
- f. Sampling and analysis equipment.
- h. Sample collection points.
- j. Sampling team and qualifications.
- k. Proposed laboratory and certification (NYSDOH ELAP and CLP required)

5. **QUALITY ASSURANCE/QUALITY CONTROL PLAN**

a. **Introduction**

The Contractor shall provide a Quality Assurance/Quality Control Plan (QA/QC) for all samples to be collected and analyzed. The Contractor's QA/QC Plan will be reviewed and commented on by the Engineer and Department during the award period. The QA/QC Plan must be accepted by the Engineer and the Department before the Contract can be awarded.

Samples to be collected and analyzed are described primarily in Sections 11301 and 11302. The requirements presented herein are minimum requirements required by the New York State Department of Environmental Conservation. The TSDF, NYSDOT, USDOT or other states may require additional sample(s), analyses and/or requirements for proper transportation and disposal of the wastes to the TSDF. Final disposal will be subject to RCRA and TSCA regulations, State requirements and specific requirements of the TSDF. The Contractor shall be responsible for compliance with all appropriate and applicable requirements for final disposition of all waste/contaminated materials.

b. **Sampling Services**

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

c. Analysis Of Contaminated Soil And Water

General

Sections 11301 and 11302 summarize the sampling required for this Contract, in addition to any sampling that may be required for the permits on this project.

All soil and water laboratory analyses will be in accordance with the June 2000 or most current edition of the NYSDEC Analytical Services Protocol (ASP). It is the laboratory's responsibility to be familiar with this document and all procedures and deliverables within it pertaining to New York State Superfund work. With the exception of groundwater samples, site-specific QA/QC samples will not be collected. Instead, the Contractor shall request analytical batch QC from the laboratory. All analyses must be performed by a laboratory currently certified by the New York State Department of Health-Environmental Laboratory Approval Program (ELAP), for Contract Laboratory Program (CLP) analyses.

For all sample events, the Contract shall prepare a Data Assessment Summary report. The Contractor shall first check chain-of-custody forms, holding times, calibrations, etc., as well as the sample data. The Contractor shall then prepare a short report to summarize any data deficiencies, deviations from method protocols, quality control problems, and a determination as to whether the data is of sufficient quality for the purpose intended. A NYSDEC Data Usability Summary Report (DUSR) is not required except for the soil samples.

Soils

All analyses for onsite contaminated soil will be analyzed for NYSDEC Superfund Target Compound List (TCL) parameters for the following chemical classes, and will require NYSDEC Analytical Services Protocol (ASP) analytical methods and Category B deliverables. The Contractor shall prepare a DUSR for the soil analyses.

OLM04.2

TCL VOCs

Groundwaters

Groundwater samples collected to monitor remediation cleanup shall be analyzed for the following chemical parameters. A trip blank shall be included with each shipment of samples from the site to the laboratory. The samples will require NYSDEC Analytical Service Protocol (ASP) analytical methods and Category A deliverables.

Method 8260

TCL VOCs



### Discharge Waters

Water samples collected for the purpose of monitoring discharge to the NYCDEP sewer system shall be analyzed for the parameters outlined below, and as required by any permits obtained for the purpose of discharge.

- |                      |                              |
|----------------------|------------------------------|
| • Method 624         | TCL VOCs                     |
| • Method 200.7/245.1 | TAL Metals                   |
| • Method 150.1       | pH                           |
| • Method 160.1       | Total Dissolved Solids       |
| • Method 160.2       | Total Suspended Solids       |
| • Method 130.1       | Hardness                     |
| • Method 1664        | Oil & Grease                 |
| • Method 1010        | Flashpoint                   |
| • Method 418.1       | Total Petroleum Hydrocarbons |
| • Method 7196        | Chromium +6                  |
| • Method 170.1       | Temperature                  |

Air

Air or off-gas samples collected onsite as a result of progress monitoring for the treatment system shall be analyzed for the following parameters, and will be reported as NYSDEC ASP Category A deliverables.

- TO-15 TCL VOCs (using Summa canisters or Tedlar bags)
- NIOSH Method 7903 Hydrochloric Acid (using silica gel sorbent tubes)

d. General QA/QC Plan Requirements

Turnaround times for all samples shall be as identified in Sections 11301 and 11302 for analysis during operation of the SVE and ERH systems respectively.

The QA/QC plan must state that prior to any deviations from the agreed program, the Engineer's QA/QC Officer will be notified and the deviation accepted by the Engineer's QA/QC Officer. However, such an acceptance does not limit the full responsibility of the Contractor to meet all requirements of the Contract Documents.

The Contractor project Quality Assurance Officer (QAO) must have a minimum of a bachelors degree in chemistry or natural sciences with a minimum of 20 hours in chemistry.

The QAO must be proficient in analytical methodology, data quality and interpretation, sampling plan development, quality control procedures and auditing techniques.

The QAO will assist the Contractor's Project Manager in the development of the sampling and analytical portion of the Quality Assurance Plan, perform field and laboratory audits, interface with the analytical laboratory to make requests and resolve problems, interface with the data validator and develop a project specific data usability report. Because on-site work is expected, verification of completion of the 40 hour OSHA safety training course and 8 hour refresher is required.

The QAO will attend all site specific meetings between the Contractor and the Department and Engineer and sign off on the site specific Quality Assurance Plan and all revisions.

The plan shall include an organizational chart and have a designated, qualified Quality Assurance Officer. Include a copy of the QA Officers' resume and signature page for the Quality Assurance Officer. The plan and all revisions shall be signed by the Quality Assurance Officer prior to submission to the Department and Engineer. The Quality Assurance Officer will be within the same geographical area as the Project Manager and independent of the analytical laboratory.

The plan shall state the data quality objectives for the Project Site and identify data uses.

The plan shall include a chart reflecting the number of samples to be collected, matrices, container and preservation requirements, holding times, analytical protocols to be used and anticipated QA/QC samples to be collected and analyzed.

All sample collection techniques shall be described and must be site specific.

The plan shall indicate what analytical protocols will be followed. The statement, ASP is insufficient. The contractor shall designate by method number what protocol contained in the NYSDEC Analytical Services Protocol (ASP) shall be used.

The plan shall indicate the specific limits of concern for each of the analysis listed in each of the matrices to be sampled. (Refer to Volume I, New York State ARAR's, 6NYCRR Part 371.)

The plan shall indicate the matrix specific method detection limit that must be obtained for each of the analyses and matrices listed. (This value should be in the range of 1/5 the site specific limit of concern.)

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

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

6. SPILL RESPONSE PLAN prepared in accordance with requirements of Section 01010, Subsection 1.6, to be incorporated in the Health and Safety Plan and the Contingency Plan.
7. CONTINGENCY PLAN: The Contractor shall prepare a Contingency Plan to properly prepare and deal with any emergency conditions that may arise during construction or operation of the remedial actions at the site. Considerations shall include trench collapses, unacceptable air emissions, equipment failures, storm events, utility interruptions, etc. The plan shall identify emergency procedures, emergency contacts, and all materials and equipment to be maintained at the site in the event of an emergency. Additionally, the Contingency Plan shall consider the Response Levels and Actions identified in the Community Air Monitoring Plan, included as Appendix A to Section 01030 of these Contract Documents.

### **1.11.3 Technical Submittals**

A. The Contractor shall submit a technical submittal schedule as shown in Table 01010-1 to the Engineer no later than ten (10) days after being given Notice to Proceed by the Department in accordance with Section VIII of the Contract Documents. The schedule shall be designed so that submittals can be approved prior to commencement of work and so the Contractor can complete his work on schedule. This schedule must be approved by the Engineer before commencement of the review of technical submittals.

All final submittals shall be made at least two weeks prior to field implementation. Draft submittals shall be made sufficiently in advance to allow adequate time for Department/Engineer

review and for Contractor to incorporate review comments in the final submittal. All technical submittals have to be approved by the Engineer prior to their implementation.

B. The Contractor shall submit to the Engineer/Department the following:

1. General:

- a. Surface Water Management Plan (see Subsection 1.8)

2. Site Preparation:

- a. Drawing(s) showing the location of all temporary and permanent fencing.
- d. Manufacturers literature for fence.
- c. Drawing(s) showing potable water supply including source points, layout, fixtures, and materials.
- d. Drawing(s) showing decontamination area
- e. Drawing(s) showing project sign.
- f. Drawing(s) showing natural gas, electrical, cable, water, and sewer service connections.

3. Site Facilities and Services:

- a. A site plan showing layout of temporary site facilities including but not limited to trailers and staging areas.
- b. Traffic control plan.

4. Earthwork:

- a. Clean backfill material from off-site (if required)
- b. Excavation method, proposed equipment, and calculations (if required)
- c. Dewatering methods (if required)
- d. Procedures to cover excavations with steel plates, and other procedures to maintain site operations.

5. Subsurface Structures

- a. Installation - The Contractor shall submit for review by the Engineer his proposed plan for subsurface drilling and installation of subsurface structures. The plan shall take into account all the information furnished in the contract Drawings and specifications. All work shall be performed

under the direction of an experienced qualified and competent geologist, supplied by the Contractor and approved by the Engineer.

- b. Sieve analysis of filter material
- c. Sample of filter material, upon request
- d. Dimensions and material of construction of precast concrete structures.
- e. Manufacturer's name and product data of the concrete structures and cover to be used.
- f. Construction Reports - The Contractor's geologist shall develop and maintain reports for all drilling and construction to assure compliance with contract requirements. The Contractor shall submit quality control records including the following:
  - Borehole Logging
  - Installation diagrams
  - Well development records (if required)
  - Placement of filter pack material (if required)
  - Sieve analysis of and gradation curve of filter pack material (if required)
  - Survey information for all newly installed wells.

6. Contaminated Materials:

- a. A Materials Handling Plan describing manners and/or methods for collection, staging, containerization, handling, treatment, testing transportation and disposal of contaminated soil, liquid, drummed material, and waste or other materials resulting from onsite activities. All soil, liquid, and materials shall be treated and disposed of on-site whenever possible. The plan shall include the proposed final disposal locations for all materials.
- b. Transportation Plan: The Contractor shall submit a Transportation Plan to the Engineer prior to the start of work for review. This shall include:
  - Type and number of vehicles used;
  - Travel routes and times;
  - Decontamination methods for vehicles and containers (see Section 01030, Subsection 1.14)
  - Emergency response plans (see Section 01030, Subsection 1.17)
- c. Disposal Facilities: 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:

- Name;
- Owner;
- Type of facility/permit;
- Contact person, phone number;
- Location; and
- Hours of operation

The Department alone shall approve all the final disposal facilities for wastes from this site.

7. Soil Vapor Extraction and Electrical Resistance Heating Systems:

- a. Process and Instrumentation Diagram (P & ID).
- b. Equipment list including, manufacturer, model number, dimensions, operating capacity, weight, expected range of operations, utility requirements, and material of construction.
- c. Drawing(s) showing proposed location, layout, and anchorage of equipment, instrumentation and appurtenances and relationship of other parts of work including clearances for maintenance and operation.
- d. Performance charts and curves.
- e. Manufacturers' descriptive and technical literature.
- f. Start-Up Plan.
- g. Operation and Maintenance Manual for SVE in accordance with Section 01600 - Operation and Maintenance Manual. The manual must be updated and complete upon turnover of system to the NYSDEC.

8. Piping, Valves, Fittings and Other Accessories

- a. Detailed drawing(s) showing pipe and valve layout. Drawings shall show all supports, anchors, guides, expansion joints and all accessories required for a satisfactory piping system.
- b. Pipe and valve schedules including size, type, style, and materials of construction.
- c. Manufacturers' technical and descriptive literature.
- d. Detailed description of proposed leak and pressure testing procedures.

9. Process Instrumentation and Controls

- a. Instrument specifications sheets including tag number(s), electrical power requirements, connections, dimensions, materials of construction, performance and environmental characteristics, manufacturer and model, enclosure classification, and input/output characteristics.
- b. Manufacturers' technical and descriptive literature.
- c. A block diagram(s) showing in schematic form all interconnections between components including but not limited to control panels, PLC(s), local processors, annunciators operation interface(s) and instrumentation.
- d. Loop diagrams for each monitoring and control loop prepared in accordance with ANSI/ISA-S5.4-1991.
- e. Ladder logic diagram(s) describing the control logic used to program the PLC.

10. Electrical

- a. The contractor shall submit the following:
  - (1) Product data for conduit and fittings.
  - (2) Product data for junction boxes, hinged cover enclosures, and cabinets.
  - (3) Product data for each type and size of wire and cable.
  - (4) Product data for each type and size of splice connector and terminator on electrical service.
  - (5) Product data on service entrance panelboard. Include enclosure and support point dimensions, voltage, main bus ampacity, integrated short circuit ampere rating, circuit breaker arrangement and sizes.
  - (6) Product data on motor starting contractors. Include electrical ratings, components arrangement and enclosure rating and dimensions.
  - (7) Product data on wiring devices. Include electrical and NEMA ratings and dimensions for power and lighting switches, receptacles and control devices.

- (8) Panel schedule for installation in panelboard. Submit final versions after load balancing.
  - (9) All Equipment Electrical ratings.
  - (10) Submit utility companies information and service installation.
  - (11) NEMA ratings of all equipment and materials of construction.
- b. Submittals shall include the following information to the extent applicable to the particular item above.
- (1) Manufacturer's name and product designation or catalog number.
  - (2) Electrical ratings.
  - (3) Conformance to applicable standards or specifications of ANSI, ASTM, ICEA, IEEE, ISA, NEC, NEMA, NFPA, OSHA, UL, or other organizations.
  - (4) Dimensioned plan, section, and elevations showing means for mounting, conduit connection, and grounding, vibrational movement, and preventative maintenance.
  - (5) Materials of construction and finish specification, including paints.
  - (6) List of components including manufacturer's names, catalog numbers, and quantities (bill of materials).
  - (7) Internal wiring diagram indicating all connection to components and numbered terminals for external connections.
  - (8) Manufacturer's instructions and recommendations for installation, operation, and maintenance.
  - (9) Manufacturer's recommended lists of spare parts.
  - (10) Utility Company prepared drawings for electric service and written summaries of all communications with the utility companies.
- c. Submit manufacturer's data on lighting fixtures, lamps and ballasts.
- (1) Include electrical ratings and photometric data with certified results of independent laboratory test.
  - (2) Include data on batteries and chargers (materials of construction, grade, life, recharging requirements) of emergency lighting units.



- (3) Submit dimensioned drawings of lighting fixtures. Submit fixture drawings in booklet form with separate sheet for each fixture.
- (4) Provide complete set of operating and maintenance manuals. Include technical data sheets and parts ordering information. Include testing and maintenance requirements and instructions for emergency lighting equipment.
- (5) Submit a sample of specific individual lighting fixture types for approval. Submit fixture samples when requested by the department.

C. The Contractor shall submit as-built documents as outlined in Section VIII, Article 5.19 of these Contract Documents. All as-built documents shall be submitted in a clean and reproducible format.

#### **1.12 PRE-CONSTRUCTION CONFERENCE**

A Pre-Construction Conference (as required by Section VIII, Article 1) will be held between the Contractor, Engineer, NYSDEC, NYSDOH, and the current site occupant (Atlantic Bus Company). Attendance by the Contractor's superintendent, quality control personnel, safety department personnel, and any major subcontractor's superintendent will be required.

The Department shall be responsible for making arrangements for an acceptable site for the conference. The Engineer shall take minutes of the conference and distribute copies to all participants.

#### **1.13 PROGRESS MEETINGS**

Progress meetings and conferences will take place at the project site or some other location satisfactory to both the NYSDEC and the Contractor. All expenses associated with providing a location and facility for the meetings shall be borne by the Contractor.

The Department/Engineer will schedule and administer a mandatory progress meeting at least once every two weeks (biweekly) and such additional meetings as deemed necessary to raise significant questions, establish new guidelines, introduce new aspects to the project or other items that will affect the progress of work if requested by either the Engineer or the Contractor. The Contractor shall attend all progress meetings, providing the staff necessary to address items on the agenda and other issues that could come up.

The Engineer will be responsible for recording the minutes of meetings and shall include all significant proceedings and decisions. The Engineer shall reproduce and submit to the NYSDEC and Contractor after each meeting three copies of the minutes of the meeting and shall distribute copies to each participant at the meeting and to agencies parties affected by decisions made at the meeting.

The Department/Engineer will administer the following general requirements for the progress meetings.

1. Prepare agenda for meetings.
2. Make physical arrangements for the Department/Engineer to attend meetings.
3. Preside at meetings.
4. Record the minutes; include significant proceedings and decisions.
5. Distribute previous meeting minutes.

#### **1.14 PROJECT RECORD DOCUMENTS**

The Contractor shall maintain at the site for the NYSDEC one record copy of:

1. Updated construction schedules and progress records.
2. Contract Drawings, and one set of blue prints of Record Drawings marked-up with field changes.
3. Contract Specifications.
4. Addenda and Modifications.
5. Change Orders and other modifications to the contract.
6. NYSDEC and the Engineer's field orders.
7. Manufacturer's certificates.
8. Daily work activity summary reports, including:
  - Records of all site work.
  - Reports on any/all spill incidents.
  - Reports on any emergency response actions.
  - Test Records.
  - Chain-of-custody documents.
  - Laboratory reports.
  - Other items as may be required by the NYSDEC and the Engineer.

All of these items shall be turned over to Department upon completion of the project.

#### **1.15 PERMITS**

The Contractor shall obtain and maintain at the site all permits necessary to perform the work required in this contract. The Contractor shall pay all fees in association with obtaining these permits. These permits include all local construction permits such as all sewer connection permits, sidewalk and roadway permits, electrical permits, water, gas, phone, cable, and all other utility permits and applications. Specific information regarding these permits has been included as Appendix A to this section. The Contractor is not required to obtain NYSDEC air discharge permits, however, the Contractor shall construct and operate the remediation in a manner that complies with the substantive requirements of the regulations.

#### **1.16 WARRANTY OF CONSTRUCTION**

In addition to any other warranties set out elsewhere in this contract, the Contractor shall

provide a warranty that work performed under this contract conforms to the requirements of the Contract Documents and is free of any defect of equipment, material or design furnished, or workmanship by the Contractor or any of his subcontractors or suppliers.

The warranty shall continue for a period of one year from the date of Final Acceptance of the work (Part D Final Completion).

The Contractor shall repair or replace at his own expense any such failure to conform or any such defect. In addition, the Contractor shall remedy at his own expense any damage to Government-owned or controlled real or personal property, when that damage is the result of the Contractor's failure to conform to contract requirements or any such defect of equipment, material, workmanship, or design.

The Contractor shall also restore any work damaged by the Contractor in fulfilling the terms and conditions of this section. The Contractor's warranty with respect to work repaired or replaced hereunder will run for one year from the date of such repair or replacement.

In addition to the other rights and terms provided by this section, all subcontractors', manufacturers', and suppliers' warranties expressed or implied with respect to any work and materials shall, at the direction of the NYSDEC, be enforced by the Contractor for the benefit of the NYSDEC. In such case if the Contractor's warranty under paragraph 12.1 of the General Conditions has expired, any suit directed by the NYSDEC to enforce a subcontractors', manufacturers', or suppliers' warranty will be at the expense of the NYSDEC. The Contractor shall obtain any warranties which the subcontractors, manufacturers, or suppliers would give in normal commercial practice.

#### **1.17 PROJECT COORDINATION**

A. The Contractor shall be solely responsible for the coordination of schedules for any and all of his subcontractors. The Engineer shall review all schedules and the Contractor shall coordinate all time schedules to be used for construction.

B. As per Article 10 of Section III, prior to a proposed Subcontractor working on the project in an amount expected to be greater than or equal to \$10,000, the proposed subcontractor must submit to the Department a properly executed New York State Uniform Contracting Questionnaire through the Contractor, and have it accepted by the Department prior to conducting any work on the project.

**Table 01010-1**

**Contractor's Schedule for Technical Submittals Requiring Department / Engineer Review**

<b>Submittal</b>	<b>Submittal Number</b>	<b>When Required</b>	<b>Contractor's Anticipated Submittal Date</b>
<b>01010 GENERAL</b>			
Off-site Permitted Disposal Facility		5 days after notice of apparent low bid	
Work Plan		5 days after notice of apparent low bid	
Schedule		5 days after notice of apparent low bid	
Health and Safety Plan		5 days after notice of apparent low bid	
Sampling Plan		5 days after notice of apparent low bid	
QA/QC Plan		5 days after notice of apparent low bid	
Surface Water Management Plan		Prior to Construction	
Contingency Plan		Prior to Construction	
As-Built Documents		Upon Completion of Work	
<b>01040 SITE PREPARATION</b>			
Fence		Prior to construction	
Potable Water Supply		Prior to construction	
Decontamination Pad & Area		Prior to construction	
Project Sign Location		Prior to construction	
Utility Connections		Prior to construction	
<b>01050 SITE FACILITIES AND SERVICES</b>			
Site Layout		Prior to construction	
Staging Areas		Prior to construction	
Traffic Control Plan		Prior to construction	
<b>01051 SURVEY</b>			
Survey Control Monuments		Prior to construction	
Permanent Structures and Utilities		Prior to construction	
Inspection and Calibration Certificates		Upon Request	
Monitoring Well Locations and Elevations		Upon Completion	
Pipe and Utility Locations and Elevations		With Record Drawings	
Field Notes and Data		Upon Request	
<b>02220 EARTHWORK</b>			
Excavation Method		Prior to construction	
Excavation Equipment		Prior to construction	
Dewatering Methods (if required)		Prior to construction	
Sheet pile & Calculations (if required)		Prior to construction	
Backfill Material and Methods		Prior to construction	
<b>02221 WELL DRILLING AND PLACEMENT</b>			
Well Construction Plan		Prior to construction	
Sieve Analysis for Filter Material		Prior to construction	
Sample of Filter Material		Upon Request	
Concrete Handholes for Wells		Prior to construction	
Vault Covers for Wells		Prior to construction	
Well Construction Reports		Upon Completion	
Boring Logs		Upon Completion	
<b>02222 DECOMMISSIONING STRUCTURES</b>			
Well Decommissioning Procedures		Include with Work Plan Submittal	

**Table 01010-1**

**Contractor's Schedule for Technical Submittals Requiring Department / Engineer Review**

Submittal	Submittal Number	When Required	Contractor's Anticipated Submittal Date
<b>02230 CONTAMINATED MATERIALS</b>			
Materials Handling Plan		Include with Work Plan Submittal	
Transportation Plan		Prior to construction	
<b>02500 SITE RESTORATION</b>			
Asphalt Repair Plan and Materials		Prior to construction	
Concrete Repair Plan and Materials		Prior to construction	
<b>11301 SOIL VAPOR EXTRACTION SYSTEM</b>			
System Layout		Prior to construction	
System Housing		Prior to construction	
Moisture Separator		Prior to construction	
Blowers		Prior to construction	
Level Switches		Prior to construction	
Pressure Gauges		Prior to construction	
Portable Monitoring Instruments		Prior to construction	
Flow Switch		Prior to construction	
Autodialer		Prior to construction	
Sampling Ports		Prior to construction	
Heat Trace		Prior to construction	
Startup Plan		Prior to construction	
Operations & Maintenance Plan		After Installation, and Updated	
Weekly Reports		1 Week after Reporting Period	
<b>11302 ELECTRICAL RESISTANCE HEATING</b>			
Electrode Construction and Placement		Prior to construction	
Power Control Unit(s)		Prior to construction	
Condenser		Prior to construction	
Cooling Tower		Prior to construction	
Blowers		Prior to construction	
Moisture Separator(s)		Prior to construction	
Condensate Holding Tank		Prior to construction	
Carbon Adsorption Units		Prior to construction	
ERH Health and Safety Plan		Prior to construction	
Temperature Monitoring Points (TMPs)		Prior to construction	
Thermocouple Calibration		Prior to construction	
Equipment Layout		Prior to construction	
Pipe and Valve Layout		Prior to construction	
Startup Plan		Prior to construction	
Operating Plan		Prior to construction	
Weekly Reports		1 Week after Reporting Period	
Post-Remediation Soil Sampling Report		1 Week after Reporting Period	
<b>11303 VAPOR TREATMENT</b>			
Vapor Treatment Equipment		Prior to construction	
Startup Plan		Prior to construction	
Operating Plan		Prior to construction	

**Table 01010-1**

**Contractor's Schedule for Technical Submittals Requiring Department / Engineer Review**

Submittal	Submittal Number	When Required	Contractor's Anticipated Submittal Date
<b>11304 SUBSURFACE DEPRESSURIZATION</b>			
Equipment Layout		Prior to construction	
Piping Layout		Prior to construction	
Installation Plan		Prior to construction	
<b>15050 PVC PIPE, FITTINGS, VALVES, ETC.</b>			
PVC Pipe		Prior to construction	
Steel Pipe		Prior to construction	
Ball Valves		Prior to construction	
Check Valves		Prior to construction	
Butterfly Valves		Prior to construction	
Gate Valves		Prior to construction	
Pipe Supports		Prior to construction	
Wall Penetration Details		Prior to construction	
Testing Procedures		Prior to construction	
<b>16010 ELECTRICAL</b>			
Power Supply		Prior to construction	
Electrical Plan and Layout		Prior to construction	
Conduit and Fittings		Prior to construction	
Junction Boxes		Prior to construction	
Enclosures and Cabinets		Prior to construction	
Wire and Cable		Prior to construction	
Panelboards		Prior to construction	
Motor Starters		Prior to construction	
Wiring Devices		Prior to construction	
Lighting and Fixtures		Prior to construction	
Grounding		Prior to construction	
Electrical Heat Trace		Prior to construction	
NEMA Ratings for all equipment		Prior to construction	

NOTE: This list is not meant to be an all encompassing list of the shop drawings required for submittal. The Contractor is not exempt from submitting shop drawings or non-technical submittals as required by other sections not listed above.

N:\11172744.00000\EXCEL\[submittal list.xls]Sheet1



## **SECTION 01010**

### **APPENDIX A**

New York City Department of Environmental Protection

- Sewer Connection Application and Effluent Limitations
- *Application: Tap, Service Line, or Non-Premise Permit*

New York City Department of Transportation

- Sidewalk and Roadway Construction Permits
- Highway Rules

Keyspan Energy

- Construction Standard for Single Gas Meter Installation



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GUIDELINES FOR FILLING OUT THE SITE CONNECTION PROPOSAL FORM

Following are minimum submission requirements for all site connection proposal submissions. It is incumbent upon the applicant to provide all other data, calculations, plans, etc that will support and clarify the applicant's proposal for the disposal of all storm and sanitary discharge from the subject development.

GENERAL:

1. The site connection proposal form shall be filed to obtain sewer information certification for all developments other than fee simple 1, 2, or 3 family dwellings with individual connections to existing sewers fronting the property.
2. All proposed connections shall be in compliance with the latest D.E.P. rules and regulations for the construction of house connections under Title X, "Rules and Regulations Governing the Construction of Private Sewers and Drains", and D.E.P. sewer design standards.
3. Applicant submitting site connection proposals must be either a New York Licensed Professional Engineer or Registered Architect.
4. All submissions must be made through the local borough sewer office of the Department of Environmental Protection wherein the proposed project is located. Submit six (6) copies of the SITE CONNECTION PROPOSAL form with sections A through G completely filled out. If an item is not applicable to the proposed project insert N.A. for "not applicable".
5. All supporting documents, plans, surveys, consents, amendments, affidavits, calculations, boring logs, etc. must accompany the site connection proposal at the time of submission to the local office.
6. Each document requiring a P.E., R.A. or L.S. stamp must have an original stamp. Signatures accompanying such stamps may be facsimile signatures. All documents required to be notarized must be original documents with original signatures and original corporate seals. Photo copies of notarized documents are not acceptable.
7. A check for the review fee based upon the latest rate of \$0.02 per square foot for the first 10 acres and \$0.015 per square foot of total site area over 10 acres with a minimum of \$325.00, as established by the New York City Water Board and payable to the same, will be required before the submission will be scheduled for review. If more than one site is included on the same application form each site is subject to the above stipulation.
8. INCOMPLETE, INCORRECT, OR ILLEGIBLE submissions will be returned without review.

SECTION A:

1. Provide the appropriate Building Department application number, i.e., NB, ALT, or BN, etc.
2. If application has been made for tentative block and/or lot number(s) fill in the tentative block and/or lot number(s), not the present block and/or lot number(s), in the appropriate place. All other documents, plans, etc. must be consistent with the number(s) shown in section A. Note: include with your submission three (3) copies of the tentative lot number request form, each with the applicant's original stamp and signature.

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3. Provide the appropriate zoning designation and zoning map number in which the project is located.
4. Provide the name, address, and telephone number of the applicant (submitting P.E. or R.A.) and the owner or developer.

SECTION B:

1. Indicate building and site use. Identify specific commercial, industrial, or other use where applicable, e.g., restaurant, car wash, warehouse, gas station, hospital, textile factory, etc. Indicate all mixed uses such as residential with offices, residential and commercial (stores) etc.
2. Indicate both the type of building and ownership, the number of buildings (each must have a NB, ALT, BN, etc.), and the total number of dwelling units, if any.

SECTION C:

1. The proposed method of disposal of all sanitary, storm, or combined discharge from the site must be indicated in this section and on the site plan. (see section G).
2. Storm flow to the sewers must be restricted to the allowable based on the DRAINAGE PLAN or the APPROVED DRAINAGE PROPOSAL and shown on the form along with the total developed site storm flow. If detention and/or retention of storm flow is proposed the appropriate boxes must be checked.
3. Show the number, type (sanitary, storm, combined), and diameter of each site connection requested and the total Q for sanitary, storm, and combined flow separately. In those situations where design conditions mandate the use of one specific pipe material, the applicant shall affix a note on the site connection proposal form, the site plan, and attachment 'F' indicating that no substitution of material is permitted. Any proposed storm flow to drywells must be shown under the appropriate column.
4. On the site plan, for each connection requested, the applicant must provide hydraulic calculations showing how these discharges were obtained - see site plan requirements in section G.
5. If detention facilities and a controlled flow device are used to restrict the storm flow it must be noted on the SCP form, site plan and on attachment "F".

SECTION D:

CHECK THE APPROPRIATE BOXES FOR THE METHODS OF CONNECTION PROPOSED AS DESCRIBED BELOW AND SHOW THE DIAMETER AND TYPE FOR EACH CONNECTION PROPOSED

1. Use existing spurs, risers, or curb connections if the proposed site connection has the same diameter.
2. The applicant may propose to install a new riser, if required, in accordance with D.E.P. Sewer Design Standards.

WHERE NO SPUR OR RISERS EXISTS, OR AN EXISTING SPUR OR RISER IS UNUSABLE THE FOLLOWING METHODS OF INSTALLATION SHALL BE USED:

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3. Fold spur in: Six (6) inch diameter house connections to sewers less than 10" in diameter must be made by replacing three sections of sewer with two straight sections and a central spur piece.
4. Coring: An approved coring machine shall be used to cut into the city sewer for the purpose of permanently affixing a spur when:
  - a. The new house connection is 6" diameter and the sewer into which it will be connected is 10" or larger; or
  - b. The new house connection is 8" diameter and the sewer into which it will be connected is 12" or larger; or
  - c. The new house connection is 10" in diameter and the sewer into which it will be connected is R.C.P. 24" or larger; or
  - d. The new house connection is 12" to 16" in diameter and the sewer into which it will be connected is 48" or larger.
  - e. Connections to brick sewers, if no spur or riser is available, should be made by coring in accordance with D.E.P. requirements.
  - f. No coring of the following sewers shall be permitted:
    - i. Clay pipe sewers on soil bedding without concrete cradle.
    - iii. Cement pipe sewers.
5. Manhole Conn: When the new connection is 10" in diameter and the sewer into which it will be connected is smaller than 24" in diameter, or when a 12" to 16" diameter house connection is to be made to a sewer under 48" diameter, or an 18" diameter or larger connection is to be made to sewer of any size, a manhole shall be used to accommodate such connection. If no manhole exists, a new manhole shall be required. Details must be shown for all connections over 15", whether to a manhole or directly to the sewer.
6. Reuse of legally plugged connections must be in compliance with D.E.P. requirements.

SECTION E:

1. Complete items 1, 2 and 3 if the proposed site connection connects to a sewer constructed under a private sewer plan. Print in N.A. if not applicable.
2. Complete item 4 unless a septic system is proposed.

SECTION F:

1. The information required in this section must be shown either in Section F on the site connection proposal form, or on an attached sheet not to exceeds 8-1/2" x 14" (Attachment F), signed by the applicant with original stamp. Signatures accompanying such stamps may be facsimile signatures. The appropriate box under Section F on the site connection proposal form must be checked.
2. Clearly show all: buildings and lot lines identified as to Building Department number, block and lot number, project location, existing sewers in the street (s) indicating size, type, material, distance between manholes, direction of flow,

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manhole rim and invert elevations, watercourses, existing and/or proposed easements dimensioned and located.

3. Datum must be sewer datum except for Brooklyn, where Brooklyn Highway Datum may be used if the following note is shown: "Elevations shown are in Brooklyn Highway Datum which is 2.56 feet above mean sea level U.S.C. & G.S., Sandy Hook. Brooklyn Sewer Datum is 1.72 feet above mean sea level U.S.C. & G.S., Sandy Hook."
4. Show north arrow. Label all streets fronting the lot(s) and bounding the block(s). Print names of streets along the respective street line, but not within the lines of the street. This area is to be used to show the street sewers clearly.
5. For connections to combined sewers where a combined site connection is requested the following criteria is to be followed:
  - a. For combined sewers that will remain combined the combination of the sanitary and storm drains should be done within the site.
  - b. For combined sewers where future separation is possible, the storm and sanitary drains should remain separated within the site and be combined into one connection outside the property line.
6. Show all proposed and existing site connections to the sewer(s). Additionally show:
  - a. Size, diameter;
  - b. Type (sanitary, storm or combined);
  - c. In those situations where design conditions mandate the use of one specific pipe material, the applicant shall affix a note to the form, the site plan, and attachment 'F' indicating that no substitution of material is permitted.
  - d. Invert elevation of the connection at the building line and at the point of entry to the sewer, and the invert of the sewer at the point of the connection. Calculate and show pitch of the connection(s);
  - e. Distance from the building to the sewer(s);
  - f. No horizontal bends on house connections will be permitted outside the property line.
7. A clean out manhole immediately inside the property line is required for all common internal sanitary, combined, or storm drains which serve multiple lots.
8. Common internal combined or storm drains which serve multiple lots may not run under buildings unless proper access is provided for maintenance, repair, or replacement.
9. The connection to the existing manhole or sewer should be made approximately perpendicular.
10. At the point of entry to a circular sewer the invert elevation of the connection should be between two and one o'clock (75% to 92% of the diameter of the sewer).
11. The crown of a connection to a reinforced concrete box sewer should be 12" below the inside top of the sewer.
12. The invert of connections to manholes must be at least 3" above the bench, and the inner top of the connection should not be lower than the inner top of the sewer.

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13. When site connections are to be made to new or existing manholes, a drop pipe manhole is required when the invert of the house connection is 4 feet or more above the spring line of the sewer.
14. When the Department of Buildings approves the use of an internal ejector system to serve more than one building, the ejector must discharge into a standard pressure relief manhole on the owner's property, and then flow by gravity into the existing street sewer. The inflow and outflow pipes should offset from each other horizontally and vertically. Show detail drawings of such manhole with dimensions on the site plan.
15. If detention of site storm flow by roof detention is proposed the following note should be shown: "roof flow of \_\_\_\_ cfs will be restricted to \_\_\_\_ cfs by means of roof detention and controlled flow devices".
16. If detention of site storm flow by detention facilities other than roof detention is proposed the following note should be shown: "storm flow of \_\_\_\_ cfs will be restricted to \_\_\_\_ cfs by means of detention facilities and controlled flow devices".

SECTION G:

1. Provide six (6) copies of the site plan, each with applicant's signature and original stamp. All of the required information indicated in Sections B, C, D, E and F shall also apply to the information required to be shown on the site plan. Site plans must be to scale and no larger than 30" x 40". Title of project, owners name, date originally submitted and revision dates (if applicable) must appear on the site plan. In addition, the following requirements also apply:
  - a. Indicate distance of site from nearest intersecting street, avenue, etc.
  - b. Existing, legal and proposed grades must be clearly shown for the bounding streets. Existing and proposed grades must be shown for the site.
  - c. A pool of any kind should be clearly shown on the site plan as to size, capacity, and location, and must drain to a sanitary or combined sewer. Certification of the site connection proposal is not an approval of the swimming pool discharge. A SEPARATE FILING IS REQUIRED after certificate of inspection (C of I) has been issued.
  - d. Specific details must be shown for connections larger than 15" to a sewer or manhole, drop pipe manholes, and pressure relief manholes.
  - e. ON the site plan, show separately in square feet the paved, roof, grass, and dirt area. Include in addition any other surface not mentioned. The total site plan area must be shown and must be the same as the sum of the component areas.
  - f. On the site plan, show the hydraulic loading and all hydraulic calculations for both sanitary and storm discharge, actual and allowable:
    - i. Sanitary flow should be computed based on zoning in accordance with D.E.P. sewer design criteria, not based on fixture units.
    - ii. Design industrial / manufacturing waste flow must be computed by standard D.E.P. design criteria which uses 10,000 gallons per acre per day times the appropriate factors based on zoning.

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- iii. Design storm flow must be calculated by standard D.E.P. design criteria using a rainfall intensity of 5.95 inches per hour and the appropriate runoff coefficient for the applicable surfaces. The runoff coefficient for roof areas is 1.0. The total lot area must be used in computing the design storm flow.
  - g. The method of disposal for all sanitary and storm discharge from the proposed development must be indicated on the site plan.
  - h. Computations for the required detention volume, and the design of the controlled flow device must be shown on the site plan. Plan view and cross sections with elevations of the detention facilities and details of the controlled flow device must be shown.
2. Provide three (3) copies of a current (within one year of original submission) site survey, each with signature and original stamp of a Licensed Land Surveyor. In cases where streams/watercourses run through the applicant's property, or run through abutting property and will be affected by the development, they must be clearly shown and properly labeled. If it is proposed to discharge site storm flow to existing catch basin(s), the basin(s) and size of connection(s) to the sewer(s) must be shown. If there are no streams/watercourses the survey should have the following note with signature of the surveyor:
- "This is to certify that there are no streams nor natural watercourses in the property as shown on this survey".
3. Provide a minimum of three (3) copies of Tentative Lot Number Request Form if applicable, each with the applicant's original stamp and signature.
4. If the sanitary flow discharging from the site is tributary to a private sewage treatment plant (STP) or a private pumping station (PS), provide the STP or PS owner's consent (must be original signatures with original corporate seal) showing the project block(s), lot(s), NB number(s), and addresses.
5. Provide a letter of approval from the Department of Health if the sanitary flow from the site discharges to a private sewage treatment plant or a private pumping station not in accordance with the approved drainage proposal. Said letter should show all block(s), lot(s), and NB number(s).
6. A Department of Buildings amendment/request is required for the following:
- a. Easement connections when the sewer is allowable and it is demonstrated that it is not feasible to extend a sewer to serve the site.
  - b. On site disposal of storm flow for properties underlain by serpentine rock.
  - c. On site disposal of storm flow by means of other than standard drywells as specified in the N.Y.C. Building Code.
- The amendment must show all block(s), lot(s), Building Department numbers, and addresses in the submission, and must specify the method of disposal of all storm and sanitary flow from the site.
7. A notarized affidavit from the owner is required for all condominium or homeowners association projects following the format of the sample available at the local sewer offices.

DEPARTMENT OF ENVIRONMENTAL PROTECTION  
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SITE CONNECTION PROPOSAL FORM

VALID FOR TWO (2) YEARS

[SC / ]

PE/RA signature  
and original  
seal

A. PROJECT DATA:

Borough of \_\_\_\_\_ Building Dept. No(s) \_\_\_\_\_  
Tax Block \_\_\_\_\_ Lot(s) \_\_\_\_\_ Zoning \_\_\_\_\_ Map No. \_\_\_\_\_  
Project Location \_\_\_\_\_  
Applicant \_\_\_\_\_  
Address \_\_\_\_\_ Zip \_\_\_\_\_ Phone ( ) \_\_\_\_\_  
Owner \_\_\_\_\_  
Address \_\_\_\_\_ Zip \_\_\_\_\_ Phone ( ) \_\_\_\_\_

B. PROJECT USE:

Type: ☐ 1,2,3, Family ☐ Multiple Dwell. ☐ Commercial \_\_\_\_\_  
Number of Buildings \_\_\_\_\_ Total Number of Dwelling Units \_\_\_\_\_  
Ownership: ☐ Fee Simple ☐ Condominium ☐ Home Owner Association

C. SITE CONNECTIONS REQUESTED:

Total Developed Site Storm Flow \_\_\_\_\_ cfs  
Allow. Storm Flow to the Sewers \_\_\_\_\_ cfs  
☐ Detention ☐ Retention  
No. Requested \_\_\_\_\_ Sanit. \_\_\_\_\_ Storm \_\_\_\_\_ Comb. \_\_\_\_\_ Dry \_\_\_\_\_  
Size \_\_\_\_\_ XXXXXX  
Material(s) \_\_\_\_\_ XXXXXX  
Total Q (s) \_\_\_\_\_ XXXXXX

D. CONNECTION INFO:

1. ☐ Conn. to Exist. Spur, Riser, or Curb Connection
2. ☐ Proposed New Riser
3. ☐ Fold Spur in
4. ☐ Drill in
5. ☐ M.H. Conn ☐ Exist ☐ Prop
6. ☐ Reuse Plugged Connections

E. SEWER DATA:

1. P.D. Plan No. \_\_\_\_\_ Date Approved \_\_\_\_\_ Expiration Date \_\_\_\_\_
2. Date Construction Permit Was Issued \_\_\_\_\_
3. Date Sewer Was Accepted By DEP \_\_\_\_\_
4. Sanitary Discharge Tributary to:

	No	Yes	Location
Private Sewage Treatment Plant	<input type="checkbox"/>	<input type="checkbox"/>	_____
Private Pumping Station	<input type="checkbox"/>	<input type="checkbox"/>	_____
Private Sewer	<input type="checkbox"/>	<input type="checkbox"/>	_____

F. LOCATION PLAN:

- ☐ As shown below ☐ See Attached Location Plan Attachment "F"

- \*1. Site Plan - 6 copies with hydraulic calculations \_\_\_\_\_
- \*2. Survey - 3 copies with watercourse stamp \_\_\_\_\_
- \*3. Tentative Lot Number Request Form - Attached \_\_\_\_\_ Not Applicable \_\_\_\_\_
- \*4. Owners Consent for STP/PS Connection Attached \_\_\_\_\_ Not Applicable \_\_\_\_\_
- \*5. Department of Health Approval - Attached \_\_\_\_\_ Not Applicable \_\_\_\_\_
- \*6. Department of Building Amendment Request - Attached \_\_\_\_\_ Not Applicable \_\_\_\_\_
- \*7. Condo/HOA Prospectus or Affidavit - Attached \_\_\_\_\_ Not Applicable \_\_\_\_\_
- \*8. Industrial Waste Approval - Attached \_\_\_\_\_ Not Applicable \_\_\_\_\_
- \*9. Associated Mapping/Demapping Action - Attached \_\_\_\_\_ Not Applicable \_\_\_\_\_
- \*10. Builders Pavement Plan - Attached \_\_\_\_\_ Not Applicable \_\_\_\_\_
- \*11. Boring Logs - Attached \_\_\_\_\_ Not Applicable \_\_\_\_\_
- \*12. Other (Specify) \_\_\_\_\_ Attached \_\_\_\_\_

\* Requires PE/RA Stamp and Original Signature (L.S. for Survey)

a Must be Notarized

B Must be Notarized and have Corporate Seal Imposed

SEWER INFORMATION CERTIFIED BY D.E.P.

- |  |  | <u>PUBLIC</u>   | <u>PRIVATE</u> |
|--|--|-----------------|----------------|
| 1. There <u>is is not</u> a sanitary sewer fronting the property available for connections. SIZE _____ |  | _____           | _____          |
| 2. There <u>is is not</u> a storm sewer fronting the property available for connections. SIZE _____    |  | _____           | _____          |
| 3. There <u>is is not</u> a combined sewer fronting the property available for connections. SIZE _____ |  | _____           | _____          |
| 4. Sanitary discharge tributary to:  |  | <u>Location</u> |                |
| City Treatment Plant - <input type="checkbox"/> NO <input type="checkbox"/> YES                        |  |                 |                |
| Private Sewage Treatment Plant - <input type="checkbox"/> NO <input type="checkbox"/> YES              |  |                 |                |
| Private Pumping Station - <input type="checkbox"/> NO <input type="checkbox"/> YES                     |  |                 |                |
| 5. Distance to, and location of nearest allowable drainage plan sewer:                                 |  |                 |                |
| a) Sanitary Outlet _____   |  |                 |                |
| b) Storm Outlet _____  |  |                 |                |
| c) Combined Outlet _____   |  |                 |                |

CERTIFICATION, RESTRICTIONS, SPECIAL CONDITIONS:

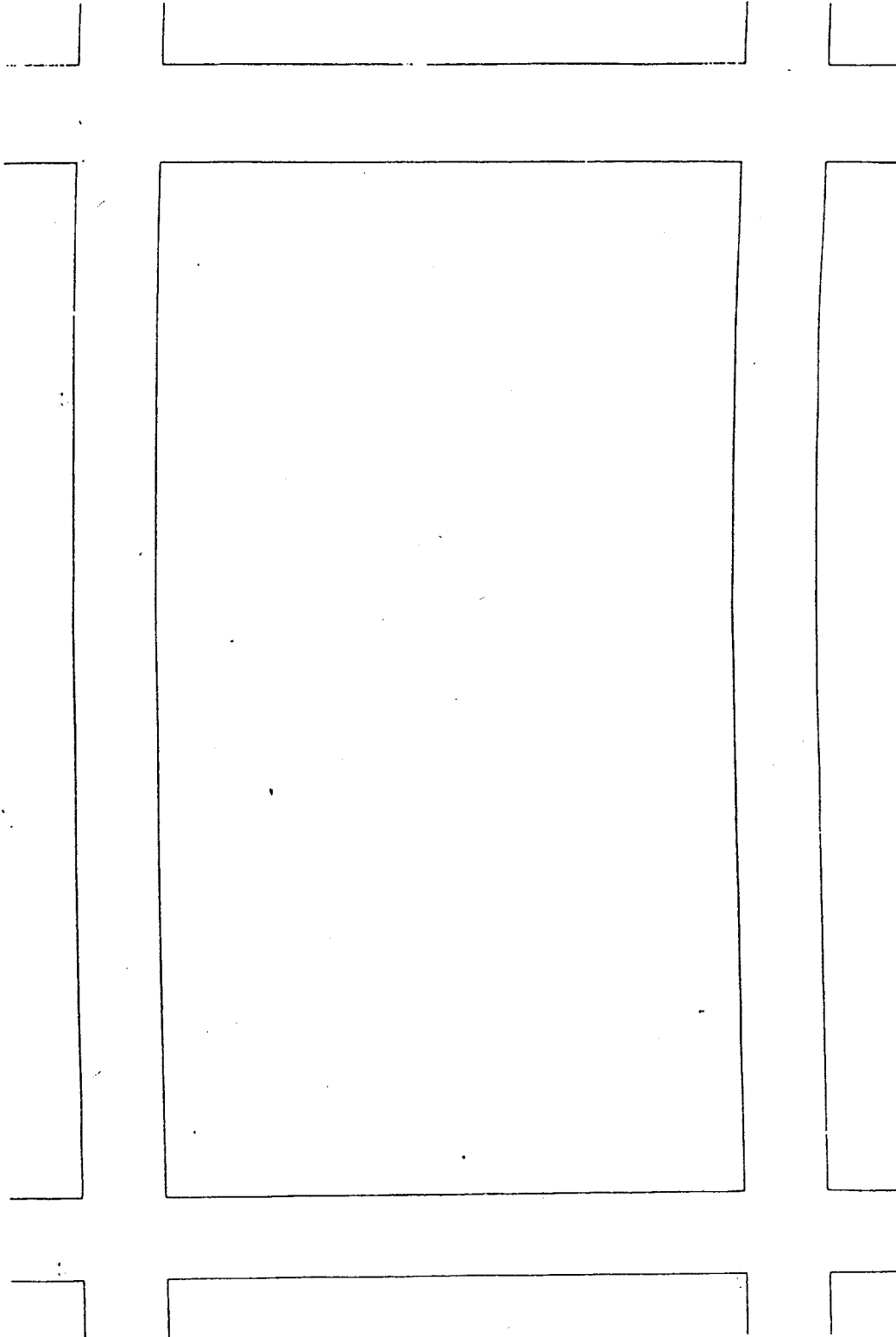
ADDITIONAL INFORMATION, COMMENTS BY D.E.P. LOCAL OFFICE:

- 1. Topo Map No. \_\_\_\_\_ Watercourse shown: ☐ YES ☐ NO
- 2. Comments: \_\_\_\_\_



LOCATION PLAN (Attachment "F"):

PE/RA Original Signature  
and seal



CITY OF NEW YORK  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
DIVISION OF SEWER REGULATION AND CONTROL  
CRITERIA FOR DETERMINATION OF  
RETENTION FACILITY VOLUME

The following procedures will be used to compute the required detention facility volume for 1&2 and site connection proposals, for storm flow generated totally within the site, to be detained within the site, and not receiving any street flow.

The method described below is based on an article entitled "A simple method of retention basin design" by Glen Yrjanainen and Alan W. Warren which appeared in *Water and Sewage Works*, December 1973, and "Storm Water Detention for Drainage, Water Quality, and CSO Management" by Peter Stahre and Ben Urbonas published by Prentice Hall, 1990.

Detention storage volume will be estimated by calculating the differences between the inflow and outflow hydrographs using the basic equation:

$$V = \int_0^{t_o} (Q_{in} - Q_{out}) dt$$

In which:

V = required storage volume

t = time from beginning of storage

t<sub>o</sub> = total time that storage is required

Q<sub>in</sub> = inflow rate to the facility

Q<sub>out</sub> = outflow rate from the facility

Inflow rate will be computed based on the rational method using the equation:

$$Q = C_w i A$$

where:

Q = the flow rate in cfs (cubic feet per second)

C<sub>w</sub> = the weighted runoff coefficient

i = rainfall intensity in inches/hr

A = area tributary to the detention facility in acres

Rainfall intensity i in inches/hr, will be based on the 10 year storm using the equation:

$$i = 140/(t+15)$$

where:

i = rainfall intensity in inches/hr.

t = duration of the rainfall event in minutes

The rational method assumes a uniform block rainfall distribution over the entire tributary area, that the runoff hydrograph has the same shape with respect to time as the rainfall hyetograph, and that the use of a weighted runoff coefficient for the tributary area is valid. For urban areas of less than 160 acres these assumptions are generally valid.

# 1. DETENTION FACILITIES WITH A VARIABLE OUTFLOW.

For a detention facility where the outflow is controlled by means of an orifice subject to a head which increases as the depth of storage increases, in a storage facility with a uniform area with respect to depth, the average flow rate out of the storage facility will be approximately 2/3 of the maximum outflow rate and the following procedures will be used to estimate the required storage volume.

1. Compute the flow rate in cfs to which the detention facility outflow will be restricted. Generally this will be the allowable flow as indicated by the drainage plan for the storm or combined sewer which it is proposed to connect to, minus any unrestricted developed site flow discharging to this same sewer. Developed flow will be calculated based on the rational formula:

$$Q = C_w i A$$

where:

Q = the flow rate in cfs

$C_w$  = the weighted runoff coefficient

i = a rainfall intensity of 5.95 inches per hour based on a 6 minute time of concentration for the 5 year storm.

A = the area tributary to the detention facility in acres

2. Calculate the restricted flow rate in cfs per acre of imperviousness by the equation:

$$Q_o = Q_{all}/(A C_w)$$

where:

$Q_o$  = the restricted flow rate in cfs per acre of imperviousness

$Q_{all}$  = the maximum outflow rate from the detention facility in cfs

A = the area tributary to the detention facility in acres

$C_w$  = the weighted runoff coefficient for the area tributary to the detention facility

3. Calculate the duration of the storm in minutes (t) which will require the maximum detention volume by means of the equation:

$$t = (12,600/Q_o)^{1/2} - 15$$

4. Calculate the maximum required detention volume in cubic feet (V) by means of the equation:

$$V = [8400t/(t+15) - 40 t Q_o] A C_w$$

(2)

## II. DETENTION FACILITIES WITH A CONSTANT OUTFLOW

For a detention facility where the outflow will be constant and will not vary with the depth of storage in the detention facility as by the use of a pump characterized by a steep curve operating over a narrow head range, or by the use of an orifice subject to a constant head, the following procedures will be used to estimate the required storage volume.

1. Compute the flow rate in cfs to which the detention facility outflow will be restricted as in I-1.

2. Calculate the restricted flow rate in cfs of imperviousness by means of equation:

$$Q_o = Q_{all}/(A C_w)$$

as in I-2.

3. Calculate the duration of the storm in minutes (t) which will require the maximum detention volume by means of the equation:

$$t = (8,400/Q_o)^{1/2-1.5}$$

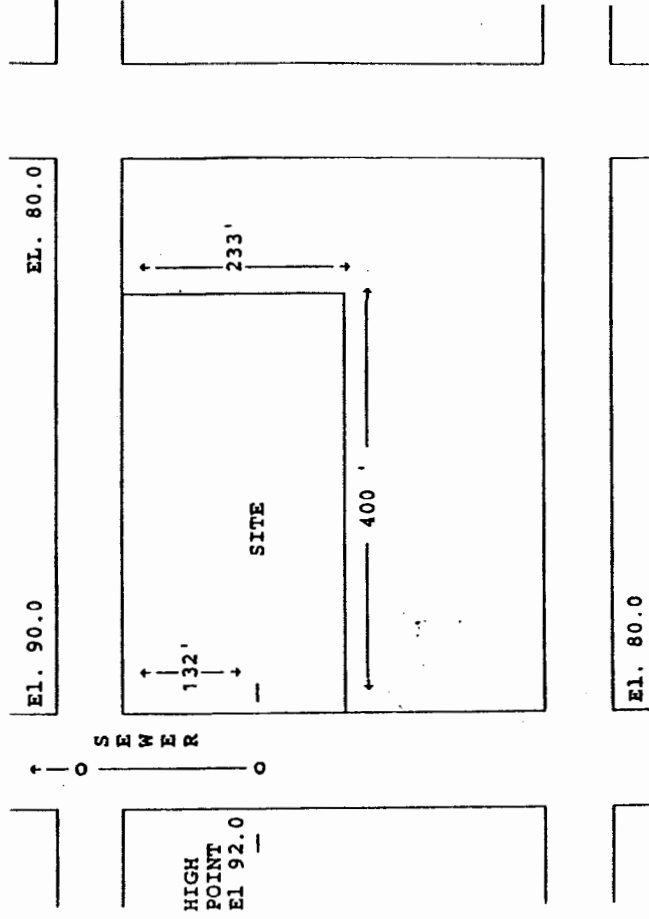
4. Calculate the maximum required detention volume in cubic feet (V) by means of the equation:

$$V = [8400t/(t+15) - 60 t Q_o] A C_w$$

Example #1

THE BRONX

Given: Area =  $93,200 \text{ ft}^2 = 2.14 \text{ acres}$   
 Roof =  $29,000 \text{ ft}^2 @ 1.00$   
 Paved =  $48,000 \text{ ft}^2 @ 0.85$   
 Grass =  $16,200 \text{ ft}^2 @ 0.20$   
 $C_w = (29,000 + 48,000 \times 0.85 + 16,200 \times 0.20) / 93,200 = 0.784$   
 $Q_{all} = (132 \times 100) \times 0.44 \times 4.0 / 43,560 = 0.533 \text{ cfs}$   
 Developed Flow =  $93,200 \times 0.784 \times 5.95 / 43,560 = 9.98 \text{ cfs} > 0.533 \text{ cfs}$   
 Flow must be restricted  
 $Q_o = Q_{all} / AC_w = 0.533 / (2.14 \times 0.784) = 0.318$



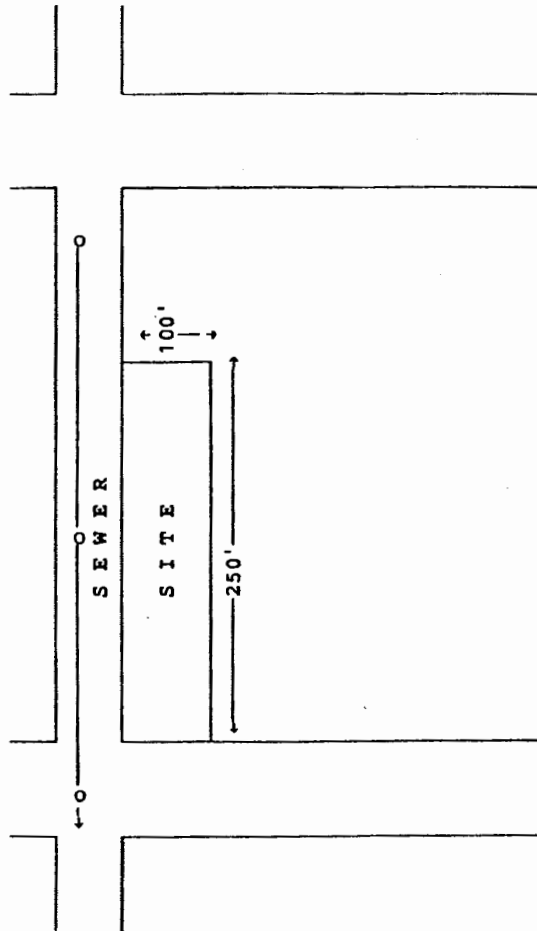
A: Outflow will be controlled by an orifice and will vary with the depth of storage  
 $t = (12,600 / 0.318)^{1/2} / 2 - 15 = 84.5 \text{ min.}$   
 $V = [8,400 \times 84.5 / (84.5 + 15) - 40 \times 84.5 \times 0.318] 2.14 \times 0.784$   
 $V = 10,165 \text{ ft}^3$

B: Outflow will be constant and will not vary with the depth of storage  
 $t = (8,400 / 0.318)^{1/2} / 2 - 15 = 66.3 \text{ min.}$   
 $V = [8,400 \times 66.3 / (66.3 + 15) - 60 \times 66.3 \times 0.318] 2.14 \times 0.784$   
 $V = 9,371 \text{ ft}^3$

Example #2

BROOKLYN

Given: Area = 25,000 ft<sup>2</sup> = 0.574 acres  
 Roof = 6,000 ft<sup>2</sup> @ 1.00  
 Paved = 10,000 ft<sup>2</sup> @ 0.85  
 Grass = 9,000 ft<sup>2</sup> @ 0.20  
 $C_w = (6,000 + 10,000 \times 0.85 + 9,000 \times 0.20) / 25,000 = 0.652$   
 $Q_{all} = (100 \times 250) \times 0.5 \times 5.0 / 43,560 = 1.43 \text{ cfs}$   
 Developed Flow = 25,000 x 0.652 x 5.95 / 43,560 = 2.23 cfs > 1.43 cfs  
 Flow must be restricted  
 $Q_o = Q_{all} / AC_w = 1.43 / (0.574 \times 0.652) = 3.82$



A: Outflow will be controlled by an orifice and will vary with the depth of storage

$$t = (12,600 / 3.82)^{1/2} - 15 = 13.7 \text{ min.}$$

$$V = (8,400 \times 13.7 / (13.7 + 15)) - 40 \times 13.7 \times 3.82 = 0.574 \times 0.652$$

$$V = 717 \text{ ft}^3$$

B: Outflow will be constant and will not vary with the depth of storage

$$t = (8,400 / 3.82)^{1/2} - 15 = 8.45 \text{ min.}$$

$$V = (8,400 \times 8.45 / (8.45 + 15)) - 60 \times 8.45 \times 3.82 = 0.574 \times 0.652$$

$$V = 408 \text{ ft}^3$$

RATIONAL METHOD:

Used by the City of New York, Department of Environmental Protection to determine storm flow:

$$Q = CIA$$

Where:

Q = Flow in cubic feet per second

I = Rainfall intensity in inches per hour

A = Tributary area in acres

1. ALLOWABLE STORM FLOW:

The allowable storm flow should be computed based on the drainage plan for the fronting sewer. As a general guideline, for lots with both depth and width no larger than 100 feet, connecting to drainage plan sewers\* fronting the site, the allowable storm flows for the following boroughs may be computed as follows:

Brooklyn ..... Q all. =  $0.5 \times 5.0 \times A$   
 Queens ..... Q all. =  $0.5 \times 4.8 \times A$   
 Bronx - pre 1964 ... Q all. =  $0.44 \times 4.0 \times A$   
       - Post 1964 .. Q all. =  $0.75 \times 4.0 \times A$

\* WPA Sewers; private drains; highway drains; TC's; plumbers drains; state highway sewers; railroad sewers, and watercourse diversions are not drainage plan sewers. The availability of any of these sewers/drains for flow must be examined and determined individually.

2. ACTUAL STORM FLOW:

The actual storm flow is computed using the following criteria:

C = 1.0 for roof areas;  
       = 0.85 for pavement;  
       = 0.75 for porous asphalt;  
       = 0.30 for undeveloped areas;  
       = 0.20 for grass

and I = 5.95 inches per hour for 5 year storm return frequency with 6 minute time of concentration.

NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION  
BUREAU OF WASTEWATER TREATMENT

LIMITATIONS FOR EFFLUENT TO *SANITARY OR COMBINED* SEWERS

Parameter	Daily Limit	Units	Sample Type	Monthly Limit
Total Petroleum Hydrocarbons	50	mg/l	Instantaneous	
pH (range)	5 - 11	SU's	Instantaneous	
Benzene	134	ppb	Instantaneous	57
Ethylbenzene	380	ppb	Instantaneous	142
Toluene	74	ppb	Instantaneous	28
Xylenes ( Total )	74	ppb	Instantaneous	28
Temperature	<150	degrees F	Instantaneous	
Cadmium	2 0.69	mg/l mg/l	Instantaneous Composite	
Chromium (VI)	5	mg/l	Instantaneous	
Copper	5	mg/l	Instantaneous	
Lead	2	mg/l	Instantaneous	
Mercury	0.05	mg/l	Instantaneous	
Nickel	3	mg/l	Instantaneous	
Zinc	5	mg/l	Instantaneous	
Flash Point	>140	degrees F	Instantaneous	
Total Suspended Solids	No Limit		Instantaneous	
PCB's ( Total )*	1	ppb	Composite	
Perc (Tetrachloroethylene)	20	ppb	Instantaneous	
MTBE (Methyl-Tert-Butyl-Ether)	10	ppb	Instantaneous	10
Naphthalene	47	ppb	Composite	19
Other				

\* Analysis for PCB's are requested ***only*** if ***both*** conditions listed below are met:

- 1) if proposed discharge > 10,000 gpd;
- 2) if duration of a discharge > 10 days.

***Analysis for PCB's must be done by method 608 by EPA only with MDL=65 ppt***



NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION  
BUREAU OF WASTEWATER TREATMENT

LIMITATIONS FOR EFFLUENT TO *STORM* SEWERS

Parameter	Daily Limit	Units	Sample Type	Monthly Limit
Oil & Grease	15	mg/l	Instantaneous	
pH (range)	6.5-8.5	SU's	Instantaneous	
Benzene	134	ppb	Instantaneous	57
Ethylbenzene	380	ppb	Instantaneous	142
Toluene	74	ppb	Instantaneous	28
Xylenes ( Total )	74	ppb	Instantaneous	28
Temperature	<150	degrees F	Instantaneous	
Cadmium	2 0.69	mg/l mg/l	Instantaneous Composite	
Chromium (VI)	5	mg/l	Instantaneous	
Copper	5	mg/l	Instantaneous	
Lead	2	mg/l	Instantaneous	
Mercury	0.05	mg/l	Instantaneous	
Nickel	3	mg/l	Instantaneous	
Zinc	5	mg/l	Instantaneous	
Flash Point	>140	degrees F	Instantaneous	
Total Suspended Solids	No Limit		Instantaneous	
PCB's ( Total )*	1	ppb	Composite	
Perc (Tetrachloroethylene)	20	ppb	Instantaneous	
MTBE (Methyl-Tert-Butyl-Ether)	10	ppb	Instantaneous	10
Naphthalene	47	ppb	Composite	19
Other				

\* Analysis for PCB's are requested *only* if *both* conditions listed below are met:

1) if proposed discharge > 10,000 gpd;

2) if duration of a discharge > 10 days.

*Analysis for PCB's must be done by method 608 by EPA only with MDL=65 ppt*



The City of New York  
Department of Environmental Protection  
Bureau of Water and Energy Conservation

## APPLICATION: TAP, SERVICE LINE, OR NON-PREMISE PERMIT

**PLEASE PRINT: Complete Part One and Either Part Two or Part Three**

### PART ONE: NAME/ADDRESS (TO BE COMPLETED BY ALL APPLICANTS)

APPLICANT'S FULL NAME: \_\_\_\_\_  
WORK SITE STREET ADDRESS: \_\_\_\_\_  
CITY/STATE/ZIP CODE: \_\_\_\_\_

### PART TWO: TAPE OR SERVICE LINE PERMITS (APPLICANT MUST BE LICENSED PLUMBER)

(Check Mark either TAP or REPAIR/RELAY)

TAP PERMIT (POTAP)		REPAIR/RELAY SERVICE LINE (PORRS)	
BUILDING SIZE: _____	DOT HIGHWAY PERMIT NUMBER _____		
TAP SIZE: _____	PLUG(s) (How Many?) _____		
SERVICE SIZE: _____			
PRIVATE WATER MAIN (Yes or No)	Yes _____	No _____	
DESCRIBE TAP WORK (Install? Plug? Repair? Locate?) _____			

The undersigned plumber being the duly authorized agent for the owner of the above property, hereby agrees to remove all existing abandoned taps supplying this or the former building on this site, and in case of his failure to do so, will be suspended immediately and further permits to him refused. The liability for all expenses incurred by the Department of Environmental Protection in excavating and closing said abandoned taps shall be against the property and unless promptly paid, the water supply will shut off. This application is approved subject to the rules and regulations of this Department. The plumber is to apply for his permit not later than one (1) working day following the date the application is approved.

SIGNATURE OF LICENSED PLUMBER/DATE: \_\_\_\_\_  
PLUMBER'S LICENSE NUMBER: \_\_\_\_\_

### PART THREE: NON-PREMISE PERMITS

(Check Mark Choice)

Hydrant Permit	(POHYD)	Hose Permit	(POHOS)
Building Purpose Misc. Permit	(POMSC)	Shipping Permit	(POSHP)

START TIME: \_\_\_\_\_ END TIME: \_\_\_\_\_ (Hose and Building Purposes-Misc. Only)

START DATE: \_\_\_\_\_ END DATE: \_\_\_\_\_ (Hose, Building Purposes-Misc., Hydrant, Shipping)

NUMBER OF DAYS USED: \_\_\_\_\_

NATURE OF WORK TO BE DONE: \_\_\_\_\_

BOAT/SHIP NAME: \_\_\_\_\_

SIGNATURE OF OWNER/CONTRACTOR/PLUMBER/DATE: \_\_\_\_\_

STREET ADDRESS: \_\_\_\_\_

CITY/STATE/ZIP CODE: \_\_\_\_\_

PERMIT CHARGE (LEAVE BLANK): \_\_\_\_\_ PERMIT No. (LEAVE BLANK): \_\_\_\_\_



## Sidewalk And Roadways Construction Permits

The Permit Management Office of the Bureau of Permit Management and Construction Coordination receives all permit applications and ensures that the necessary documents are included so they may begin the review process. The Office reviews plans, issues construction permits and applies appropriate fees. Permits are then issued to all utilities, plumbers, contractors, homeowners and other governmental agencies' contractors, enabling them to work on the city's streets and sidewalks.

### **General Information**

#### **Process for Obtaining Permits**

#### **Applications**

#### **Permit Types and Fees**

#### **More useful Information**

#### **Protected Streets Listing**

#### **Highway Inspection and Quality Assurance (HIQA)**

#### **NYC DOT Highway Rules**

#### **Regulations of Newsracks**

### **General Information**

#### **The Permit Management Office**

#### **Standard Requirements**

#### **Hours**

#### **Definitions**

### **The Permit Management Office**

The Permit Management Office issues a total of 69 different types of permits in the following categories.

- 44 types of permits are issued in the Street Opening category,
- 16 types of permits in the Construction Activity category,
- 5 types for Sidewalk Construction,
- 4 types for Canopy Permits and a miscellaneous category.

The Office of Construction Mitigation and Coordination (OCMC) develops the construction activity traffic stipulations for permits to insure that performing road work impacts the least on the City's businesses, traveling public, and residents.

The OCMC-Streets unit reviews all roadway and building construction on City streets and non-toll bridges, and develops traffic stipulations for daily permits or capital construction projects. These permit requests originate from the construction industry and other governmental agencies. OCMC-Streets interfaces with resident engineers, city agencies, community boards, elected officials and the general public to resolve construction issues or problems related to traffic, and works closely with the major utilities to ensure that their scheduled work is done expediently and with the least impact upon the public. OCMC-Streets issues construction embargoes for all significant special events such as the Marathon, parades, street fairs, and for the holiday season.

OCMC -Highways is responsible for coordination and enforcement of the City's review for any construction on limited access highways, expressways, parkways or toll bridges. The projects normally involving this office are long term capital projects currently averaging more than \$3.3 billion in construction cost. This office's responsibilities include: reviewing the impact of these projects, determining appropriate days and hours of operation, developing work time stipulations, lane availability stipulations and necessary detours; acting as the focal point for securing all necessary consents and permits required of City and other agencies; preparing Maintenance and Protection of Traffic (MPT) requirements for the construction stages, developing operational procedures and providing locations of storage areas.

### **Standard Requirements**

If you have any questions about insurance please refer them to your Insurance Broker, then have him/her give

us a call at (212) 442-7919.

If you are hiring a contractor, they must provide the insurance requirements before a permit will be issued. Insurance documents must have the same name and address as the Company applying for the Permit.

All applications for sidewalk or roadway closings must be submitted in person to the Office of Construction Mitigation and Coordination (OCMC) 220 Church Street, ground floor, New York, New York 10013 telephone # (212) 442-7954 for approvals. The OCMC Office must review and approve all sidewalk and roadway closings.

**Scheduled Hours for OCMC**

Monday 8:00 AM to 11:30 AM

Tuesday 8:00 AM to 11:30 AM

Wednesday 8:00 AM to 12:30 PM

Thursday 8:00 AM to 11:30 AM

Friday 8:00 AM to 11:30 AM

Once you have obtained the approval of OCMC., you must submit your application to the Permit office, which is located in the same area.

Permit Office Hours: New applications accepted 8:00 AM - 11:30 AM. Permit window closes at 3:30 PM.

If you are using a Permit Expediting Service, please submit, on your letterhead, a letter authorizing them to obtain permits on your behalf.

If you have been awarded a contract by another City/State agency, or Authority, please bring a copy of the contract, Order on Letter, Notice to Proceed or a letter of authorization. On the application, you should type or print your name and the name of the City/State agency, or Authority for whom you are working

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**Definitions**

**Administrative code.** The Administrative Code of the City of New York.

**Block Segment.** The term "Block Segment" means the linear stretch of the street between the curblines of the cross streets that intersect such block.

**Commissioner.** The Commissioner of the Department of Transportation or his or her authorized designee.

**Corrective action request or CAR.** A formal notice by the Department that work performed and/or a condition created or maintained on a street is in violation of these rules or other applicable law with a request that action be taken by the person to whom such notice is addressed to correct the work and/or the condition so described.

**Department.** The Department of Transportation.

**Designated field headquarters.** An office maintained at the work site, unless some other location is approved by the Department.

**Embargo period.** A period of time designated by the OCMC during which there shall be a temporary suspension of work (except for emergency work) due to a holiday, special event or emergency.

**Emergency.** A situation endangering the public safety or causing or likely to cause the imminent interruption of service required by law, contract or franchise to be continuously maintained.

**Emergency work.** Work necessary to correct a situation endangering the public safety or causing or likely to cause the imminent interruption of service required by law, contract or franchise to be continuously maintained,

for example, by a government agency, a public utility, a franchisee, etc. Such term shall not include work on new construction, regrades of existing hardware, continuation of an existing permit that has expired or will expire imminently or any other work which is not necessary to correct a condition likely to cause such imminent interruption.

**Intersection.** The term "Intersection" means the area contained within the grid created by extending the curblines of two or more streets at the point at which they cross each other.

**OCMC.** The Office of Construction Mitigation and Coordination, a unit within the Department which is responsible for providing traffic stipulations and coordinating construction activity on City streets.

**Protected street.** The term "protected street" means a street which has been resurfaced or reconstructed within five years prior to the date of application for a permit.

**Roadway.** The term "roadway" means that portion of a street designed, improved or ordinarily used for vehicular travel, exclusive of the shoulder and slope.

**Sidewalk.** The term "sidewalk" means that portion of a street between the curb lines, or the lateral lines of a roadway, and the adjacent property lines, intended for the use of pedestrians.

**Specifications.** The term "specifications" means the standard specifications available from the Department indicating required construction materials.

**Standards.** The standard details of construction, available from the Department, which contains drawings showing required dimensions of items to be constructed.

**Street.** A public street, avenue, road, alley, lane, highway, boulevard, concourse, parkway, driveway, culvert, sidewalk, crosswalk, boardwalk, viaduct, square or place, except marginal streets.

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## **Process for Obtaining Permits**

**[Permits by Mail for Private Homeowners](#)**

**[Instructions for Registration Application](#)**

**[Instructions for Permit Application Form](#)**

## **Applications**

**[Registration Application](#)**

**[Roadway/Sidewalk Permit Application](#)**

## **Process for Obtaining Permits**

Prior to obtaining permits from the Department, you must complete a [Registration Application](#). Please refer to the [Instructions for Registration](#). Application for detailed information. If you are a private homeowner applying for a Sidewalk Repair Permit and you will be making the repair yourself and/or if the permit is in response to a sidewalk violation, you may apply for a [Permit By Mail](#).

The completed Registration Application and proof of required insurance must be submitted to the Bureau of Permit Management and Construction Control 40 Worth, Street Room 915, New York, NY 10013. The required insurance includes Liability Insurance, Street Obstruction Bond, Plumber's Bond, and Worker's Compensation Insurance. Please refer to [Insurance Information](#) for more detailed information .

Upon submission of a properly completed Registration Application and the required insurance, you will be issued an account number. This account number will be referred to as your Permittee Number. Your Permittee Number is like a bank account number and it must be used on all of your permit applications. You should not give your permittee number to anyone except those you authorize on the Registration Application to obtain permits for you.

You are now ready to apply for a permit. To obtain a permit you must complete the Application for Roadway/Sidewalk Permit(s). Please refer to Instructions for Permit Applications Form for detailed instructions. Upon submission of the properly completed Application for Roadway/Sidewalk Permit(s) for the Permit Type you requested and the proper fee you will receive your Permit. Please refer to Permit Types and Fees for more detail.

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#### **Instructions For Registration Application**

The instructions below are for both Corporate and Individual registration. For individual registration, you must fill in : "Not Applicable" for all corporate question lines. Please print application on 8 1/2" X 14" paper only.

- 1) Date submitted: Enter today's date
- 2) E.I.N.(Employee Identification Number):Enter your Tax I.D. Number or your S.S.#
- 3) Name:Enter the Name the permits will be taken out in. If a corporation enter the corporation Name. AKA enter Name to be used other than your Name.
- 4) NYS Business Address: You must have a New York State Address.
- 5) City, State, Zip: Enter City, State and Zip Code.
- 6) Business Phone: Enter day time telephone number, a telephone number you can be reached at 24 hours a day (for emergency situations), and your fax number .
- 7) Category of Work performed: check all types of work that will be performed by you or your corporation.
- 8) Applicable License Numbers: Enter your Applicable License Numbers as required for each type of work you will perform.
- 9) Approved Paver: Check if you are an approved Paver.
- 10) Work In Borough: Check each Borough you expect to perform work in.
- 11) Authorized Representatives To Obtain Permits: Enter all persons you authorize to obtain permits for you, their affiliation to you and their telephone number.
- 12) Company Information for : Officers/Directors/ Managing Agents/Etc.: Enter at least two names of corporate officers, Title and Signature;
- 13) Designated Representatives to Accept Service of Summons At Your Business Office: You must enter the names of at least two peoples who are authorized to accept summonses for your corporation and who are located at your business address.
- 14) Company Official: Print your name. Sign: your signature and Title: Your title. For Corporations you must also submit a statement that the Employee Identification Number is registered for the company you are filing for, and this statement must be on your company's letterhead.

#### **Instructions For Permit Application Form**

Please print application on 8 1/2" X 14" paper only.

- 1) If permit is a renewal or extension enter permit number
- 2) Enter your IBM number and your tax I.D. number
- 3) Enter DOB, LPC or other agency/department applicable number
- 4) Check borough work will be performed in
- 5) Enter OCMC number (if applicable)
- 6) Enter name of permittee and telephone number
- 7) Enter business address
- 8) Enter plumber's restoration (if applicable)
- 9) Enter testing lab (if applicable)
- 10) Enter master rigger number (if applicable)
- 11) Enter type of pavement for roadway and/or sidewalk
- 12) Check all permit types you are requesting

- 13) If permit type is not on the list enter number and description
- 14) Enter building address of your job
- 15) Enter the street you are working on if different from the building address and add AKA to line
- 16) Enter the cross streets of the street work is being performed on
- 17) Enter the reason you are requesting the permit
- 18) Enter the number of openings (if applicable)
- 19) Enter the area size of job (square footage)
- 20) Enter the linear frontage
- 21) Enter exact diagram of work location you are requesting permit for showing all pertinent information including north arrow, sidewalk/street widths and distances to curbs, building lines, corners etc. which will help in showing the exact location of the work
- 22) Print name of person submitting this application and the date
- 23) Signature of authorized representative

## **Permit Types and Fees**

### **Street Openings**

### **Construction Activity Permit**

### **Sidewalk Construction**

### **Canopy**

Generally: A Street Opening Permit Fee is \$135, \$380 on a Protected Street, and is valid for 15 or 30 days unless otherwise stated (the duration in days may be extended as shown below with OCMC approval). A Construction Activity Permit Fee is \$50, and is valid for 90 days unless otherwise stated. Sidewalk Construction Permit Fees are \$70 and are valid for 30 days, unless otherwise stated. A Canopy Permit is \$50 and valid for 1 year. All types of permits usually allow for work within 300 linear feet by a width of 12 feet. Other conditions may apply such as a variation in the distance and width of the job which may increase the fee required. These permit types are marked with an \* and you should refer to Schedule Of Fees. Listed below are the Permit Type Numbers with their corresponding Fee and Duration.

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## **More useful Information**

### **General Conditions For Permits**

### **Embargo Periods**

### **Traffic Stipulations**

### **Insurance Information**

## **General Conditions For All Permits**

Permit applications for the following work shall be reviewed by the Office of Construction Mitigation and Coordination (OCMC)

prior to the issuance of permits:

Work to be performed for sewer and water system construction;

Work to be performed in Manhattan;

Work required on primary and secondary arteries;

Permits to close streets;

Permits for placement of commercial refuse containers in Manhattan;

Any other activity deemed necessary by the Commissioner.

Unless otherwise authorized, permits shall be kept at the work site or designated field headquarters at all times and shall be made available for inspection upon request of any police officer or any authorized employee of the Departments of Environmental Protection, Buildings, Police and Transportation or any other City employees specifically authorized by the Commissioner to enforce these rules.

Permittees shall display signs at the work site or at 100 foot intervals along a series of excavations or continuous cut indicating the name of the permittee conducting the work, the name of the entity for whom the



work is being conducted and, if applicable, the name(s) of the subcontractor(s). Such signs shall include: permittee's telephone number for complaints; contractor's telephone number, if not the permittee; the permit number; the purpose of the street opening; and the start and scheduled completion dates of the work. Signs shall be conspicuously displayed and shall face the nearest curb line. Such signs shall be clear, readable and in letters at least 1 1/2 inches in height and shall conform to the Department's specifications.

**Embargo Periods**

All routine work shall be suspended during an embargo period unless approval for the work is granted by the OCMC. Such suspension shall not apply to emergency work, for which an emergency number shall be obtained by the permittee pursuant to the provisions of section 2-11 of these rules. Information regarding embargo periods is on file at each borough permit office and is available upon request. It is the responsibility of each permittee to obtain such information prior to the commencement of any work. It shall be a violation of these rules to do any work on the street during an embargo period without the prior approval of the OCMC or an emergency number.

**Insurance Information**

An original certificate of insurance shall be filed with the Central Insurance Unit and shall include the following minimum requirements and where applicable the following statements:

- Certificate of Liability Insurance-  
Additional insured:  
The City of New York  
c/o Department of Transportation  
Bureau of Permit Management  
220 Church Street, Ground Floor  
New York, New York 10013

**Access clause**

The coverage is broad enough to cover the operations of this contractor in the Borough(s) of: \_\_\_\_\_  
(please specify each Borough or "all five Boroughs").

- Commercial General Liability of \$325,000 except as follows.  
Permit for Placing a Crane or Shovel on Street; the policy shall provide for \$500,000 to \$2,000,000 for bodily injury and \$500,000 to \$1,000,000 property damage.

Permit for Sidewalk Construction, the policy shall provide for \$50,000 bodily injury and \$5,000-property damage insurance.

20 - day cancellation clause

State: In the event of expiration or cancellation of any such policy, the company will give the Department of Transportation/Bureau of Permit Management at least twenty (20) day written notice prior to such expiration or cancellation

**Certificate holder:**

The City of New York  
c/o Department of Transportation  
Bureau of Permit Management  
220 Church Street, Ground Floor  
New York, New York 10013

- Street Obstruction Bond  
A five thousand dollar (\$5,000) bond will be required for a single location in each borough. A twenty-five thousand dollar (\$25,000) bond will be required for multiple locations in any of the five boroughs.

**Note:**

A twenty-five thousand dollar (\$25,000) bond will be required for all crane permits.

Face of the bond should list the terms and agreements, principal was issued, and the signatures of the Principal and Surety Co. President or Authorized Representative.

Power of attorney, Surety acknowledgment form must be signed and notarized. Acknowledgment form from either of the following: Corporation, Firm, Individual: signed and notarized.

A financial statement listing all assets and liabilities you may refer to [Sample Bond](#) for a copy of a Street Obstruction Bond that meets with DOT approval.

- **Plumber's Bond & Local Law 14 Plumber's Bond**  
A three thousand dollar (\$3,000) plumber's bond will be required for any work performed on the pavement, curbs, sidewalk and all subsurface structures.  
  
A three thousand dollar (\$3,000) Local Law - 14 plumbers' bond will be required for any work performed on a street that has been resurfaced or reconstructed within the last five years.
- **Worker's Compensation Insurance**  
Worker's Compensation Certificate addressed to the Department of Transportation, Bureau of Permit Management, City of New York. Certificate shall state that the General Contractor and all Subcontractors are covered for the entire operation. A separate Policy or Certificate need not be filed for each location, provided such coverage is in force for all operations in the entire Borough, City or State.

### **Back to Top**

### **Protected Streets Listing**

A Protected street is a street which has been resurfaced or reconstructed within five years prior to the date of application for a permit. No street opening activity shall be allowed, except for emergency work or as authorized by the Commissioner, in a protected street for a period of five years from the completion of the street improvement. The listing is updated weekly and is accurate to within the previous two-week period. This five-borough listing consists of 10 files: for each borough, there is one file for segments and one for intersections.

#### **Using The Protected Streets Listing**

(If you do not want to read this information, go directly to the [Protected Street Listings](#).)

#### **Special Note:**

These records are updated on a weekly basis. The most recent update was on 5/13/03.

#### **Finding a Location**

The official street name should be used when searching for a location in this listing. For example, Central Park West becomes Frederick Douglass Boulevard north of Cathedral Parkway/Central Park North. For numbered streets or avenues, do not spell out the number. For example, enter 1 Avenue or 4 Street.

### **The listing contains the following sections:**

#### **Blocks**

Blocks are listed in alphabetic order by street name with all numbered streets coming before all named streets. However, please note that streets having directional prefixes, such as East 57 Street, will appear under "East" not 57 Street.

Where several blocks of a street are protected, they are listed in geographical order. For each protected block, the listing also provides the high and low addresses. A range appearing as blank means that no addresses are on record for that block.

#### **Intersections**

Protected intersections are also listed alphabetically, based on which street name comes first. For example, the intersection of Astor Place and Broadway (Manhattan) is listed under Astor Place. Also, numbered streets precede named streets. To illustrate, the intersection of East Houston Street and 7 Avenue will be found under


7 Avenue.

**Completion Date**

A blank completion date denotes an "active" project. The street will become a protected street when the project work is completed.

For locations in the listing that do not include dates, please call the Borough Street Maintenance Office for additional information.

Bronx 718-931-5400 ext. 114  
Brooklyn 718-780-8138  
Manhattan 212-487-8439/8471  
Queens 718-286-2707  
Staten Island 718-816-2084

The Protected Streets Listing is an extensive document in the PDF Format  consisting of hundreds of pages of text and will take a significant amount of time to download.

Download Acrobat Reader . 

	Approximate File Size
<b><u>Manhattan segment</u></b>	162 KB
<b><u>Manhattan intersection</u></b>	74 KB
<b><u>Brooklyn segment</u></b>	330 KB
<b><u>Brooklyn intersection</u></b>	141 KB
<b><u>Bronx segment</u></b>	192 KB
<b><u>Bronx intersection</u></b>	110 KB
<b><u>Queens segment</u></b>	403 KB
<b><u>Queens intersection</u></b>	215 KB
<b><u>Staten Island segment</u></b>	210 KB
<b><u>Staten Island intersection</u></b>	103 KB

## Permit Types and Fees

### Street Opening Permits

Permit Number	Description	Fee	Duration in days
0100	Open sidewalk to install foundation	\$ 135	30/90
0102	Major installations - high voltage	\$ 135/380	30/90
0103	Major installations – gas	\$ 135/380	30/90
0104	Major installations – steam	\$ 135/380	30/90
0105	Major installations – telephone	\$ 135/380	30/90
0106	Transformer vault - on roadway	\$ 135/380	15/30
0107	Transformer vault - on sidewalk	\$ 135	15/30
0108	Installation of poles	\$ 135	30
0109	Major installations – water	\$ 135/380	30/90
0110	Major installations – cable	\$ 135/380	30/90
0111	Major installations – sewer	\$ 135/380	30/90
0112	Rapid transit construct/alteration	\$ 135/380	30/90
0113*	Repair water	\$ 135/380	15/30
0114	Repair sewer	\$ 135/380	15/30
0115	Repair water/sewer	\$ 135/380	15/30
0116	Fuel oil line	\$ 135	15
0117	Vault construction or alteration	\$ 135	30
0118	Reset repair or replace curb	\$ 135	30
0119	Pave street - w/engineering & inspect. Fee	\$ 135	15
0120	Tree Pit	\$ 135	30
0121	Construct/alter Manhole or Manhole cast	\$ 135/380	15
0122	Repair Gas	\$ 135/380	30
0123	Repair steam	\$ 135/380	30
0124	Repair electric / communications	\$ 135/380	30
0126	Test pits cores or boring	\$ 135/380	15
0127	Conduit construction (cable telecommunication) and franchise	\$ 135/380	15
0128	Erect canopy	\$ 135	30
0129	Install street furniture	\$ 135	30
0130*	Land fill	\$ 135	30
0131	Private sewer	\$ 135/380	30
0132	Install fence	\$ 135	30
0133	Install traffic signals	\$ 135/380	30
0134	Install or repair petroleum pipelines/monitoring and recovery systems	\$ 135/380	30
0138	Installation of fire alarm	\$ 135	30
0139*	Installation of bus shelters	\$ 135	30
0151	Public telephones	\$ 135	30

### Construction Activity Permits

Permit Number	Description	Fee	Duration
0201*	Place material on street	\$ 50	90
0202*	Crossing sidewalk	\$ 50	90
0203*	Place crane or shovel on street	\$ 50	1 Week
0204	Place equipment other than crane/shovel on street	\$ 50	90
0205	Place shanty or trailer on street	\$ 50	90
0207*	Franchise installation(overhead structure)	\$ 50	90
0208	Temporary pedestrian walk	\$ 50	90
0210	Install decorative planters on street	\$ 50	1 Year
0211	Temporary closing of roadway	\$ 50	90
0214	Place container on street	\$ 50	90
0215	Temporary sidewalk closing	\$ 50	90

### Sidewalk Construction Permits

Permit Number	Description	Fee	Duration
0401	Repair sidewalk	\$ 70	30
0402	Construction for new sidewalk	\$ 70	30
0500	Vault license	\$ 35	1 Time

### Canopy Permit

Permit Number	Description	Fee	Duration
0701	Hotel	\$ 50	1 Year
0702	In connection with sidewalk café license	\$ 25	1 Year
0703	Resident	\$ 50	1 Year
0704	Miscellaneous	\$ 50	1 Year



New York City  
Department of Transportation

Registration Application

Bureau of Permit Management and  
Construction Coordination  
Office of Permit Management  
40 Worth Street, Room 915  
Tel: (212) 442-7292, Fax: (212) 442-7252

DOT/BPMCC Use Only:

Approved: \_\_\_\_\_

Date Submitted: \_\_\_\_\_

Permittee Number: \_\_\_\_\_

E.I.N. \_\_\_\_\_  
(Employee Identification Number)

Name: \_\_\_\_\_

Aka: \_\_\_\_\_

NYS Business

City, State,

Address: \_\_\_\_\_

Zip: \_\_\_\_\_

(P.O. Box Not Accepted)

Business Phone: Day: \_\_\_\_\_

24 Hr. \_\_\_\_\_ Fax: \_\_\_\_\_

Category Of Work Performed (Check all that apply)

Work In Borough

General Contractor ☐ Plumber ☐ Government Contractor ☐

☐ Manhattan

Sidewalk Contractor ☐ Crane ☐ Authority Contractor ☐

☐ Brooklyn

Other ☐

☐ Bronx

Applicable License Numbers:

☐ Queens

Consumer Affairs # \_\_\_\_\_ Plumber # \_\_\_\_\_

☐ Staten Island

Master Rigger # \_\_\_\_\_ Sign Hanger \_\_\_\_\_

Approved Paver: Yes ☐ No ☐

Authorized Representatives To Obtain Permits:

	Name	Affiliation	Telephone #
1)	_____	_____	_____
2)	_____	_____	_____
3)	_____	_____	_____
4)	_____	_____	_____

Company Information for Officers/Directors/Managing Agents/Etc.

	Name	Title	Telephone #
1)	_____	_____	_____
2)	_____	_____	_____
3)	_____	_____	_____
4)	_____	_____	_____

Designated Representatives to Accept Service of Summons at Your Business Office:

1)	_____
2)	_____
3)	_____

Minimum of 2 names required for company information and for designated representatives.  
The Permittee shall verify and update information as necessary.

Company Official: \_\_\_\_\_ Sign: \_\_\_\_\_ Title: \_\_\_\_\_



New York City  
Department of Transportation

Application for Roadway/Sidewalk Permit(s)

Bureau of Permit Management and  
Construction Coordination  
Office of Permit Management  
40 Worth Street, Room 915  
Tel: (212) 442-7292,  
Fax: (212) 442-7252  
M11 (Rev.10-98)Front

Previous # (for renewals only) \_\_\_\_\_

Permittee (IBM)# \_\_\_\_\_ /EIN: \_\_\_\_\_ DOB, LPC #S: \_\_\_\_\_

Borough: ☐ M ☐ B ☐ Q ☐ X ☐ S ☐ MEC ☐ BNEC ☐ QEC ☐ BXEC ☐ REC OCMC# \_\_\_\_\_

Name of Permittee: \_\_\_\_\_ Telephone #: \_\_\_\_\_

Business Address: \_\_\_\_\_

Plumber's Restoration: \_\_\_\_\_ Testing Lab: \_\_\_\_\_ Master Rigger#: \_\_\_\_\_

Type of Pavement: \_\_\_\_\_ Roadway: \_\_\_\_\_ Sidewalk: \_\_\_\_\_

**Type of Permit(S) Requested** (Check All Applicable):

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> 100-Open Sidewalk To Install Foundation | <input type="checkbox"/> 126-Test Pits, Cores or Boring                           | <input type="checkbox"/> 208-Temporary Pedestrian Walk                |
| <input type="checkbox"/> 111-Major Installation-Sewer            | <input type="checkbox"/> 127-Conduit Construction (Cable, Telecomm) and Franchise | <input type="checkbox"/> 211-Temporary Closing of Roadway             |
| <input type="checkbox"/> 113-Repair Water                        | <input type="checkbox"/> 132-Install Fence  | <input type="checkbox"/> 214-Place Container on Street                |
| <input type="checkbox"/> 114-Repair Sewer                        | <input type="checkbox"/> 201-Place Material on Street                             | <input type="checkbox"/> 215-Temporary Sidewalk Closing               |
| <input type="checkbox"/> 115-Repair Water/Sewer                  | <input type="checkbox"/> 202-Crossing Sidewalk                                    | <input type="checkbox"/> 401-Repair Sidewalk                          |
| <input type="checkbox"/> 116-Fuel Oil Line                       | <input type="checkbox"/> 203-Place Crane or Shovel on Street                      | <input type="checkbox"/> 402-Construct New Sidewalk                   |
| <input type="checkbox"/> 117-Vault Construct. or Alt.            | <input type="checkbox"/> 204-Place Equipment Other Than Crane or Shovel on Street | <input type="checkbox"/> 403-Replace Sidewalk                         |
| <input type="checkbox"/> 118-Reset, Repair or Replace Curb       | <input type="checkbox"/> 205-Place Shanty or Trailer on Street                    | <input type="checkbox"/> 405-Construct New Sidewalk-Builders Pavement |
| <input type="checkbox"/> 119-Pave Street                         |   |   |

Other Type Permit: \_\_\_\_\_

Building Address: \_\_\_\_\_

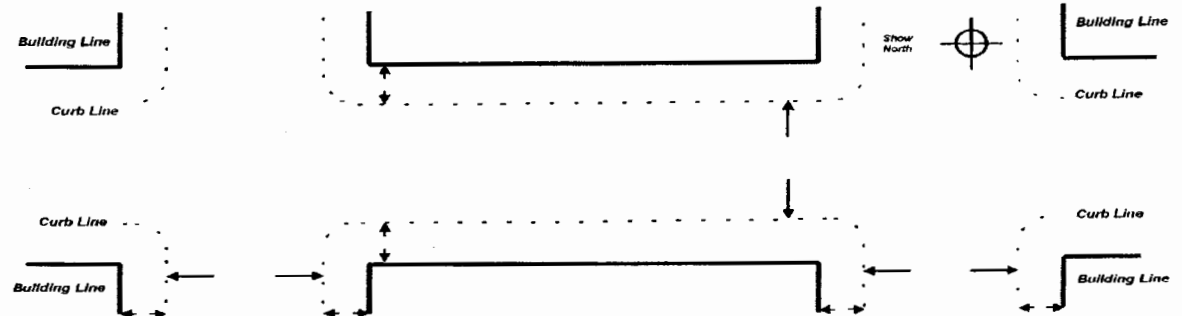
Street Working On : \_\_\_\_\_  
(if different from above)

Between: \_\_\_\_\_ And: \_\_\_\_\_

For The Purpose Of: \_\_\_\_\_

(# of openings): \_\_\_\_\_ (area size): \_\_\_\_\_ (frontage length in feet): \_\_\_\_\_

Work Start Date: \_\_\_\_\_ Work Completion Date: \_\_\_\_\_



Permit Code	Fee	OCMC Traffic Stipulations:	Permit # Received
Special Stipulations:			
Additional Fees:	Inspect.:	Tunneling:	Other(Specify):

OCMC Approval By: \_\_\_\_\_ Date: \_\_\_\_\_

**The permit to be granted subject to the following conditions:**

The applicant agrees to comply with all laws and rules of the department and other applicable laws and rules.  
No permit shall be issued unless the applicant has on file all insurance(bonds).

Approved For The Commissioner By: \_\_\_\_\_ Submitted By: \_\_\_\_\_ Date: \_\_\_\_\_

Date: \_\_\_\_\_ Signed By: \_\_\_\_\_ Tel.# : \_\_\_\_\_

Authorized Representative of Applicant

# Department of Transportation Protected Streets Listing Queens Segment

On Street	From Street	To Street	Address High	Address Low	Completed Date	Protected Until
178 PLACE	145 AVENUE	SOUTH CONDUIT AVENUE	144-001	144-047	.	.
178 PLACE	145 AVENUE	145 ROAD	144-049	144-099	.	.
178 PLACE	145 DRIVE	145 ROAD	145-001	145-057	.	.
178 PLACE	145 DRIVE	146 ROAD	145-059	145-105	.	.
179 PLACE	90 AVENUE	HILLSIDE AVENUE	088-001	089-099	8/31/1999	8/30/2004
179 PLACE	90 AVENUE	JAMAICA AVENUE	090-001	091-099	12/18/2000	12/18/2005
179 STREET	112 AVENUE	MURDOCK AVENUE	112-001	113-099	.	.
179 STREET	112 AVENUE	SAYRES AVENUE	111-001	111-099	.	.
179 STREET	114 ROAD	LINDEN BOULEVARD	114-067	115-099	10/1/1999	9/30/2004
179 STREET	114 ROAD	MURDOCK AVENUE	114-001	114-065	.	.
179 STREET	145 AVENUE	SOUTH CONDUIT AVENUE	144-001	144-099	.	.
179 STREET	145 AVENUE	145 ROAD	145-001	145-025	.	.
179 STREET	145 DRIVE	145 ROAD	145-027	145-069	.	.
179 STREET	73 AVENUE	75 AVENUE	073-001	074-099	.	.
179 STREET	75 AVENUE	UNION TURNPIKE	075-001	079-099	.	.
179 STREET	90 AVENUE	JAMAICA AVENUE	090-001	091-099	9/17/1999	9/16/2004
180 STREET	DEAD END	MERRICK BOULEVARD	130-001	130-099	11/1/1999	10/31/2004
180 STREET	104 AVENUE	LIBERTY AVENUE	103-000	103-098	.	.
180 STREET	104 AVENUE	105 AVENUE	104-001	104-099	.	.
180 STREET	105 AVENUE	106 AVENUE	105-001	105-099	.	.
180 STREET	106 AVENUE	106 ROAD	106-001	106-029	.	.
180 STREET	106 ROAD	107 AVENUE	106-031	106-099	.	.
180 STREET	107 AVENUE	BRINKERHOFF AVENUE	107-001	109-099	.	.
180 STREET	145 AVENUE	SOUTH CONDUIT AVENUE	144-001	144-099	.	.
180 STREET	145 AVENUE	145 ROAD	145-001	145-027	.	.
180 STREET	145 DRIVE	145 ROAD	145-029	145-065	.	.
180 STREET	65 AVENUE	67 AVENUE	065-001	066-099	9/17/2002	9/17/2007
180 STREET	67 AVENUE	69 AVENUE	067-001	068-099	9/17/2002	9/17/2007
180 STREET	69 AVENUE	73 AVENUE	069-001	072-099	9/17/2002	9/17/2007
180 STREET	90 AVENUE	HILLSIDE AVENUE	088-001	089-099	9/22/1999	9/21/2004
181 STREET	145 AVENUE	SOUTH CONDUIT AVENUE	144-025	144-099	.	.
181 STREET	145 AVENUE	145 ROAD	145-001	145-025	.	.
181 STREET	145 DRIVE	145 ROAD	145-027	145-065	.	.
181 STREET	145 DRIVE	146 AVENUE	145-067	145-099	.	.
181 STREET	146 AVENUE	146 ROAD	146-001	146-017	.	.
181 STREET	146 DRIVE	146 ROAD	146-019	146-041	.	.
181 STREET	146 DRIVE	146 TERRACE	146-043	146-065	.	.
181 STREET	146 TERRACE	147 AVENUE	146-067	146-099	.	.
181 STREET	147 AVENUE	DEAD END	147-001	147-099	.	.
181 STREET	89 AVENUE	HILLSIDE AVENUE	088-001	088-099	12/13/2000	12/13/2005



# Sample Bond

## HOME OFFICE NEW YORK OFFICE: OTHER THAN ONE LOCATION LIABILITY

KNOW ALL MEN BY THESE PRESENTS, That we

( \_\_\_\_\_ )  
Borough of ( \_\_\_\_\_ ) City of New York, as Principal and ( \_\_\_\_\_ ) Insurance Company,  
a corporation organized under the laws of the State of ( \_\_\_\_\_ ) and having an office and place  
business in the City of New York at ( \_\_\_\_\_ ) as Surety, are held and firmly  
bound unto the City of New York in the penal sum of TWENTY-FIVE THOUSAND AND NO/100)(\$25,000.00) DOLLARS,  
lawful money of the United States of America, to be paid to the City of New York its successors or assigns, for which  
payment well and truly to be made we and each of us do hereby bind ourselves and each of our heirs, executors,  
administrators, successors and assigns, jointly and severally, firmly by these presents. SEALED with our seals, dated this  
( \_\_\_\_\_ ) THE CONDITION of the above obligation is such that if the above bounded  
( \_\_\_\_\_ ) shall well and truly keep and in every respect comply with and conform  
to the conditions of all permit issued during the calendar year ( \_\_\_\_\_ ) and during each and every subsequent calendar  
year while this bond remains in force by the Commissioner of Buildings and or the Department of Transportation, of the  
City of New York to the said ( \_\_\_\_\_ ) covering all locations in the  
(City of New York) allowing him/her, it or they to drive across curbs and sidewalks, to take up the sidewalks or curbs for  
that purpose, to erect sheds on sidewalks and on roadways, and to place building material and equipment, tar kettles,  
boilers and vehicles upon streets and to transport any vehicle upon the roadway, for the period of time therein mentioned,  
and for such periods as such permits may be extended to or renewed, and shall during that period properly protect city  
monuments, and at the expiration of said period at once remove all material from the sidewalks and shall properly bridge  
the sidewalk where the Same are crossed by vehicles or equipment so as afford safe and convenient passage for  
pedestrians and will indemnify and save harmless the City of New York of and from all Damage and cost to which it may  
be put by reasons of injury to the person or property of another, resulting from the use of the streets as authorized by said  
permits, or resulting from failure to comply with the conditions upon which said permits were granted, and shall as  
aforesaid in all respects strictly comply with the terms and conditions of said permits, then this obligation shall be null and  
void, otherwise to remain full force, virtue effect.

It is agreed that this bond becomes effective on the date set forth above and shall continue in force until terminated as  
hereinafter provided. It is further agreed that the indemnity provided there under for any calendar year or part thereof  
during which this bond continues in force shall be the full penal sum aforesaid, provided however, that the liability of  
Surety as to any one calendar year shall not exceed said penal sum.

This bond shall be terminated on a date specified in a written notice given by the Commissioner of Transportation of the  
City of New York to Surety and Principal or in a written notice of at least sixty given by the Surety to the Commissioner of  
Transportation of the City of New York at 40 Worth Street, New York City, and the Principal by registered mail.

Contracting Company, Inc.

Signed, sealed and delivered in the present of

Attest: \_\_\_\_\_

**Peerless Insurance Company**

BY: \_\_\_\_\_

**Attorney-in-Fact**

# NEW YORK CITY DEPARTMENT OF TRANSPORTATION

## HIGHWAY RULES

as of 2/24/03

### Chapter 2

#### Section 2-01 Definitions

**Administrative code.** The term "Administrative Code" means the Administrative Code of the City of New York.

**Block Segment.** The term "Block Segment" means the linear stretch of the street between the curblines of the cross streets that intersect such block.

**Commissioner.** The term "Commissioner" means the Commissioner of the Department of Transportation or his or her authorized designee.

**Corrective action request or CAR.** The term "corrective action request" or "CAR" means a formal notice by the Department that work performed and/or a condition created or maintained on a street is in violation of these rules or other applicable law with a request that action be taken by the person to whom such notice is addressed to correct the work and/or the condition so described.

**Department.** The term "Department" means the Department of Transportation.

**Designated field headquarters.** The term "designated field headquarters" means an office maintained at the work site, unless some other location is approved by the Department.

**Embargo period.** The term "embargo period" means a period of time designated by the OCMC during which there shall be a temporary suspension of work (except for emergency work) due to a holiday, special event or emergency.

**Emergency.** The term "emergency" means a situation endangering the public safety or causing or likely to cause the imminent interruption of service required by law, contract or franchise to be continuously maintained.

**Emergency work.** The term "emergency work" means work necessary to correct a situation endangering the public safety or causing or likely to cause the imminent interruption of service required by law, contract or franchise to be continuously maintained, for example, by a government agency, a public utility, a franchisee, etc. Such term shall not include work on new construction, regrades of existing hardware, continuation of an existing permit that has expired or will expire imminently or any other work which is not necessary to correct a condition likely to cause such imminent interruption.

**Intersection.** The term "Intersection" means the area contained within the grid created by extending the curblines of two or more streets at the point at which they cross each other.

**OCMC.** The term "OCMC" means the Office of Construction Mitigation and Coordination, a unit within the Department which is responsible for providing traffic stipulations and coordinating construction activity on City streets.

**Protected street.** The term "protected street" means a street which has been resurfaced or reconstructed within five years prior to the date of application for a permit.

**Roadway.** The term "roadway" means that portion of a street designed, improved or ordinarily used for vehicular travel, exclusive of the shoulder and slope.

**Sidewalk.** The term "sidewalk" means that portion of a street between the curb lines, or the lateral lines of a roadway, and the adjacent property lines, intended for the use of pedestrians.

**Specifications.** The term "specifications" means the standard specifications available from the Department indicating required construction materials.

**Standards.** The term "standards" means the standard details of construction, available from the Department, which contains drawings showing required dimensions of items to be constructed.

**Street.** The term "street" means a public street, avenue, road, alley, lane, highway, boulevard, concourse, parkway, driveway, culvert, sidewalk, crosswalk, boardwalk, viaduct, square or place, except marginal streets.

## **Section 2-02 Permits**

### **(a) Initial permit application.**

The following information shall be provided to the Department upon initial application for a permit under these rules and shall be updated as necessary and refiled annually:

(1) If the applicant is a corporation:

(i) address and telephone number of applicant;

(ii) name and telephone number of a contact person in the event of an emergency;

(iii) affidavit acknowledging incorporation and a certified copy of the certificate of incorporation;

(iv) names of corporate officers:

insurance certificate, whether or not conforming to the requirements of paragraph 2 of this subdivision f, shall not relieve the owner or person in control of a newsrack of his, her or its obligation to actually provide such insurance. The certificate shall provide that no cancellation, termination or alteration shall be made without thirty (30) days' advance written notice to the Department.

**(g) Violations and removal.**

Violations of the provisions of section 19-128.1 of the Administrative Code or these rules shall be enforced and the newsracks shall be removed by the Commissioner pursuant to provisions of subdivision f of such section 19-128.1 and any other applicable provisions of law. The City shall charge the owner or person in control of a newsrack for the cost of removal and storage. The charge for removal shall be \$50 per newsrack. The storage charge shall be \$1.40 per newsrack per day.

**(h) Notices.** All notices required to be served on the owner or person in control of a newsrack pursuant to these rules or section 19-128.1 of the Administrative Code shall be served upon the address provided pursuant to the registration provisions in these rules. In the absence of the required registration information, service shall be made on the entity identified on the newsrack or in the publication found in the newsrack.

**Section 2-09**  
**Sidewalk, Curb and Roadway Work**

**(a) Compliance with requirements.**

Owners or builders installing or repairing roadway pavement, sidewalk and curb in connection with uses other than those requiring a Certificate of Occupancy (C of O) or letter of completion from the New York City Department of Buildings shall comply with the following requirements:

- (1) The Sidewalk, Curb & Roadway Application (SCARA) and all appropriate forms, plans and certifications shall be submitted to the Department.
- (2) All public infrastructure work shall be designed and installed in compliance with current highway engineering practice, the latest version of this publication, and the latest versions of these other Department publications: Standard Details of Construction, Standard Specifications, and Instructions for Filing Plans & Guidelines for the Design of Sidewalks, Curbs, Roadways and Other Infrastructure Components.

**(b) Professional Self-Certification.**

- (1) A property owner may install the required street infrastructure without prior review of the plan(s) by the Department under a process of

professional self-certification. Plan review by the Department will not be required when a Professional Engineer, Registered Architect or Registered Landscape Architect self-certifies that the proposed infrastructure work complies strictly with the requirements of the publications listed above in Section (a)(2) and meets or exceeds the Department's standards and specifications.

(2) If a submittal is not professionally self-certified, full Department review and approval must be obtained before work can begin.

**(c) Coordination with Capital Projects - All City, State and Federal Agencies and Public Authorities.**

In some cases, the required infrastructure work may be proposed for installation by an agency or authority under a capital improvement project. It shall be the sole responsibility of every applicant to examine all capital plans to see whether any such work is planned. If so, the applicant shall coordinate the improvements with the appropriate agency or authority.

**(d) Required Submissions.**

(1) Every applicant shall submit three (3) original SCARAs (no photocopies) for each project. See Instructions for Filing Plans & Guidelines for the Design of Sidewalk, Curbs, Roadways and Other Infrastructure Components.

(2) Every applicant shall submit the following:

(i) The correct Plan Type as required by SCARA.

(ii) The correct Certification Block as required by SCARA.

(iii) Written approval from the Landmarks Preservation Commission or the Art Commission of the City of New York, if applicable (applicant must check to see if the project is in a landmarked area or historic district).

(iv) Material testing, if required by SCARA.

(v) Maintenance agreement, if required by SCARA.

(vi) Statement of Professional Certification to accompany SCARA (optional).

**(e) Waiver.**

(1) A property owner may request a waiver of any requirement of the Department.

(2) The request shall be prepared in writing by a professional architect, engineer or landscape architect and shall have an original seal and signature affixed.

(3) It shall be submitted to the Department's Bureau of Permit Management & Construction Control.

(4) Supplementary materials must be submitted to support the waiver request, such as maps, drawings, traffic reports, calculations, affidavits, etc. No consideration will be given without complete and adequate documentation.

(5) A waiver may be granted at the discretion of the Commissioner, except where prohibited by law.

#### **(f) Sidewalks**

##### **(1) Property Owners' Responsibility.**

Property owners shall, at their own cost, install, repave, reconstruct and maintain in good repair, at all times, the sidewalk abutting their properties, including, but not limited to the intersection quadrant for corner property, in accordance with the specifications of the Department. Upon failure of a property owner to install, repave, reconstruct or repair the sidewalk pursuant to a Notice of Violation issued by the Department after an inspection, the Department may perform the work or cause it to be performed and shall bill the property owner pursuant to Section 19-152 of the New York City Administrative Code. If the property owner wishes to protest the violation, he/she may make a request at the appropriate borough office within the time specified in the notice of violation and the Department shall provide a reinspection by a different departmental inspector than the one who conducted the first inspection. The findings of the second inspection supersede the findings of the first inspection.

##### **(2) Permit Required.**

(i) A permit is required to install, repave, reconstruct or repair any sidewalk where the work involves an area of more than twenty-five square feet. Where the work involves an area of twenty-five square feet or less, a permit is only required where the purpose of the work is to remove a violation.

(ii) A sidewalk closing permit shall be required if a minimum width of five feet cannot be maintained on the sidewalk for unobstructed pedestrian passage.

(iii) An applicant shall file:

(A) An application for a sidewalk construction permit stating the location of the sidewalk work, including driveway, if applicable, and the start and estimated completion dates. All subway gratings, utility covers and castings situated in the sidewalk area which are not at proper grade or are in a dangerous condition shall be noted in the application;

(B) A Commercial General Liability insurance policy in the amount of \$250,000 combined single limit per occurrence for bodily injury and property damage;

(C) Workers' Compensation insurance;

(D) A plan for the restoration of the sidewalk, approved by the Department of Buildings, where the existing sidewalk is the structural roof of a vault or other opening.

(iv) An owner of the abutting property who files an affidavit stating therein that he/she will not employ any person or persons to repair the sidewalk for him/her, shall not be required to submit a commercial general liability insurance policy or workers' compensation insurance.

### **(3) Permit Requirements.**

All permits are subject to applicable provisions contained in Section 2-02 of these rules.

### **(4) General Sidewalk Requirements.**

(i) Except as otherwise authorized, all sidewalks shall be concrete. Sidewalks shall consist of a single course of concrete, 4" in thickness, laid upon a foundation 6" in thickness; in driveways and corner quadrants the concrete slab shall be 7" in thickness.

(ii) The foundation material shall consist of clean 3/4" broken stone, recycled concrete, gravel or clean granular materials meeting the standard specifications. The foundation material shall be tamped and compacted according to the specifications,

(iii) The sidewalk shall be constructed of New York City Mix Design Number B3200 concrete mix as per the specifications. The concrete shall be bought from a concrete plant approved by the New York State Department of Transportation. Any permittee placing 150 square feet or less of sidewalk may request approval to use a portable mixer from the Department.

(iv) Sidewalk Cores.

(A) Cores shall be required for all sidewalks in excess of 100 lineal feet. A core shall be required for each 500 square feet of sidewalk or fraction thereof. A minimum of 2 cores is required. Core evaluation reports by an approved laboratory shall be submitted to the Department.

(B) In the case of a one- or two- family dwelling on a corner lot and/or where the length of the sidewalk on each side is less than 100 lineal feet, the cores may be waived, provided that an affidavit of a Professional Engineer or Registered Architect who supervised the construction certifies that the work conforms with the specifications, and material delivery slips are submitted. (Delivery slips are to be signed by an authorized representative of the contractor).

(C) If the results of the cores meet the Department's requirements, the applicant shall file an affidavit from a Licensed Surveyor, Registered Architect or Professional Engineer certifying that the sidewalk, curb and roadway have been installed in conformance with the submitted SCARA plan. A final survey showing the actual grades as built shall be filed with the Department and the Topographical Bureau of the office of the applicable Borough President.

(v) Expansion joints are typically placed at 20' intervals and at the property or lot line. Expansion joints shall be placed between curb and sidewalk. Expansion joints shall be placed between concrete of different thicknesses or to match existing expansion joints. Every effort shall be made to isolate sidewalk hardware or other fixed objects in the sidewalk such as fire hydrants and electrical boxes with expansion material. Expansion joint filler material shall be placed to full depth of sidewalk.

All expansion joints shall be recessed 1/2" below finished sidewalk surface and sealed with Department specified sealer as soon as practical. The sealer should be applied carefully to avoid over-spilling onto sidewalk surface area. The joints are to be flush with the finished surface. Joints shall not be sealed during freezing temperatures.

(vi) The concrete shall be poured and finished in accordance with the specifications.

(vii) Flags shall be 5'x 5' where feasible. The following methods of scoring shall be employed unless otherwise approved by the Commissioner: The frontage of each building shall be divided by five. If it is exactly divisible, all flags shall be 5' wide; if not, the flags shall be plus or minus in an amount which will make them as near to 5' as possible. Cross flag scoring shall be at 90 degrees to the building line and curb. The flag markings along the sidewalk



between the curb and property line shall be parallel with the property line and curb and be uniformly 5' apart commencing at the property line, with the odd flag width, if any, nearest the curb.

(viii) All flags containing substantial defects shall be fully replaced. Patching of individual flags is not permitted.

(ix) When an existing concrete sidewalk is to be replaced and the foundation material meets specifications, the foundation material can be retained and graded to the required subgrade. Any foundation material not meeting specification shall be removed.

(x) Sidewalk Grades. Unless the Department grants a waiver of grade, permanent sidewalks shall be laid to the legal curb grades.

(xi) Transverse Slope: Sidewalks shall be laid to pitch from the building line toward the curb except in special cases as noted. The minimum slope, calculated on a line perpendicular to the curb, shall be 1" in 5', and the maximum shall be 3" in 5'. Minimum slopes shall be used wherever possible.

Note: The maximum transverse slope permitted for vault lights, covers, gratings and other sidewalk structures is 1 3/4" in 5'.

(xii) Longitudinal Slope: The longitudinal slope of the sidewalk shall be uniform and parallel to the curb at the curb's proper grade.

(xiii) Corner Treatment: The two slope lines meeting at the intersection of the two building lines shall drop from a common point at the building corner toward their respective curbs at a rate within the limits prescribed by these regulations. If this is not possible, the applicant shall submit sketches or drawings, in duplicate, showing the method of treatment proposed, to the Commissioner for approval.

(xiv) Pedestrian Ramps: Any person constructing, reconstructing or repairing a corner shall install pedestrian ramps in accordance with the specifications and in accordance with the latest revision of Standard Drawing H-1011.

(xv) Adjoining Existing and New Sidewalks: Junctions and transitions between new sidewalk and existing walk shall conform to the specifications.

(xvi) Distinctive Sidewalk:

(A) A sidewalk of a distinctive design or material may be permitted and shall harmonize with the architecture of the abutting building and/or area. The property owner or designated representative shall submit to the Department for approval: detailed plans, applicable fee, the Distinctive

Sidewalk Improvement Maintenance Agreement (DSIMA) and material samples of the proposed sidewalk.

(B) The distinctive sidewalk shall be repaired in kind or be replaced in its entirety with concrete. Changes to existing materials require a new DSIMA.

(C) The distinctive sidewalk shall be approved by the Art Commission prior to installation.

(xvii) Sidewalk Hardware And Structures:

(A) Cellar doors, gratings, underground street access covers or other similar items shall not be placed in the sidewalk unless they are of a type approved by the Department of Buildings.

(B) Any abandoned structures shall be removed and replaced with concrete sidewalk.

(C) Where the existing sidewalk is the structural roof of a vault or other opening, a plan approved by the Department of Buildings, along with vault plans as required by Section 2-13 of these rules, shall be filed for the restoration of the sidewalk.

(D) If a sidewalk improvement is in the vicinity of subway gratings or over a subway structure, the permittee shall obtain the approval of the New York City Transit Authority prior to the commencement of any work.

(xviii) Historic Districts:

(A) In Historic Districts, property owners shall obtain written approval from the Landmarks Preservation Commission prior to the repair or replacement of sidewalks. All work shall be done in compliance with the rules of the Landmarks Preservation Commission, and in accordance with the specifications.

(B) In Historic Districts gratings, bullseyes, vault lights, iron doors and other similar structures situated in the sidewalk shall not be removed without the authority of the Landmarks Preservation Commission. .

(xix) No person shall deface any sidewalk by painting, printing or writing names or advertisements, placing other inserts, attaching, in any manner, any advertisement or other printed matter, or by drawing, painting or discoloring such sidewalk, except as required by State of New York Industrial Code Rule 53 relating to Construction, Excavation and Demolition Operations at or near Underground Facilities.

(xx) Tree Pits and Trees:

(A) No trees shall be planted in the sidewalk area unless a Street Opening Permit is issued by the Department. No such permit shall be issued by the Department unless the prior written consent of the Department of Parks and Recreation authorizing the tree planting is furnished. Tree pits shall be constructed in accordance with the specifications.

(B) The soil level in the completed tree pits, including any paved surface, shall be flush with the sidewalk area and the maximum dimensions of the tree pit shall be 5' x 5'.

(C) No trees within the sidewalk area shall be disturbed or removed without the permission of the Department of Parks and Recreation.

(D) No trees or tree pits shall be installed in Historic Districts without a report from the Landmarks Preservation Commission.

#### **(5) Substantial Defects.**

Any of the following conditions shall be considered a substantial defect.

(i) One or more flags missing or sidewalk never built.

(ii) One or more flag(s) cracked to such an extent that one or more pieces of the flag(s) may be loosened or readily removed.

(iii) An undermined flag below which there is a visible void or a loose flag that rocks or seesaws.

(iv) A trip hazard where the vertical differential between adjacent flags is greater than or equal to 1/2" or where a flag contains one or more surface defects of one inch or greater in all horizontal directions and is 1/2" or more in depth.

(v) Improper slope, which shall mean (i) a flag that does not drain toward the curb and retains water, (ii) flag(s) that shall be replaced to provide for adequate drainage or (iii) a cross slope exceeding established standards.

(vi) Hardware defects, which shall mean (i) hardware or other appurtenances not flush within 1/2" of the sidewalk surface or (ii) cellar doors that deflect greater than 1" when walked on, are not skid resistant or are otherwise in a dangerous or unsafe condition.

(vii) A defect involving structural integrity, which shall mean a flag that has a common joint, which is not an expansion joint, with a defective flag and has a crack that meets the common joint and one other joint.

(viii) Non-compliance with Department specifications for sidewalk construction.

(ix) Patchwork, which shall mean (i) less than full-depth repairs to all or part of the surface area of broken, cracked or chipped flag(s) or (ii) flag(s) partially or wholly constructed with asphalt or other unapproved non-concrete material; except that patchwork resulting from the installation of canopy poles, meters, light poles, signs and bus stop shelters shall not be subject to this provision unless the patchwork constitutes a substantial defect as set forth in subparagraphs (i) through (viii) of this paragraph.

**(g) Curb (Concrete, Steel Faced, Stone).**

**(1) General Permit Conditions**

(i) The permittee shall complete all curb construction or installation before commencing any roadway paving operation or sidewalk construction, unless otherwise permitted by the Department.

(ii) All curbs more than 20 feet in length shall be built according to specifications. A Street Opening Permit is required.

(iii) Curbs less than 20 feet in length shall be built in accordance with Standard Detail H-1054. No Street Opening Permit is required if done in conjunction with a sidewalk repair permit.

(iv) Permits for the construction or installation of drop curbs and concrete driveways shall not be issued unless authorized by a permit from the Department of Buildings.

(v) All curbs shall be built according to specifications.

**(2) Recess in Vault for Curbs**

Where a vault extends to the curb line, the permittee shall provide a recess for its entire length in which the curb may be set or reset. See the Standard Drawing on file with the Department.

### (3) Permit Requirements

All permits are subject to applicable provisions contained in Section 2-02 of these rules.

(4) No person shall deface any curb by painting, printing or writing names or advertisements, placing other inserts, attaching, in any manner, any advertisement or other printed matter, or by drawing, painting or discoloring such curb.

### (5) General Provisions for Construction

Concrete curbs shall be 6 inches wide at the top, 8 inches wide at the bottom and 18 inches deep, or equal to the standards, measured on the back. All construction is to be at legal line and grade, or at any other line and grade approved by a Department engineer, and according to the specifications. Penetration of broken stone base will not be allowed unless the outside temperature is 50 degrees Fahrenheit or above.

## (h) Roadway

(1) Roadway pavement shall be 2 inches of asphaltic concrete wearing surface on a 4-inch penetrated broken stone base or a 4-inch compacted plant mixed binder base. Where the existing roadway is asphaltic concrete wearing course on a concrete base, restoration shall consist of matching the existing thickness but in no case shall there be less than 3 inches of asphaltic concrete wearing course on a 6-inch concrete base on compacted earth. Where soil conditions require, the base shall be constructed of such materials and depth as is acceptable to the Department.

(2) The roadway shall be paved at a minimum from the curb line to 5 feet beyond the center of the legal roadway width in front and on the sides of the property of the applicant. In no case shall the width of required roadway paving be less than 20 feet. Beyond the front of the property, there shall be access over a hard surface road to the nearest completed paved street system. If this does not exist, the applicant shall provide a pavement of at least 2 inches of asphaltic concrete graded to meet the existing paved street system. The width of such paving shall be at least 20 feet.

### (3) Roadway cores.

(i) Cores shall be required for all roadway pavement in excess of 100 lineal feet. A core shall be taken by the applicant for every 700 square yards of paved roadway or fraction thereof, in such manner as directed by the supervising engineer. A minimum of 2 cores is required. Core evaluation reports by an approved laboratory shall be submitted to the Department or self certified by a Professional Engineer or Registered Architect.

(ii) Where the length of roadway pavement is less than 100 lineal feet, the requirement of cores may be waived provided that an affidavit of a Professional Engineer or Registered Architect who supervised the construction certifies that the work conforms with the specifications, and material delivery slips are submitted. (Delivery slips are to be signed by an authorized representative of the contractor).

(iii) If the results of the cores meet the Department's requirements, the applicant shall file an affidavit from a Licensed Surveyor, Registered Architect or Professional Engineer certifying that the sidewalk, curb and roadway have been installed in conformance with the legally established grades as built under the terms of the permit. A final survey showing the actual grades as built shall be filed with the Department's borough office and the Topographical Bureau of the office of the applicable Borough President.

(4) The Department will issue a letter of acceptance for maintenance subject to the guarantee period of the roadway pavement, to the builder or developer if the roadway pavement meets the requirement of the permit and the specifications.

#### **Section 2-10 Street Furniture**

##### **(a) Permit Required.**

(1) See Revocable Consent Rules, Chapter 7 of this Title 34, for street furniture other than bicycle racks, small planters and non-electrical sidewalk sockets.

(2) The Commissioner may issue permits for the placement or installation of bicycle racks, planters smaller than four square feet or two feet in diameter, as measured on a horizontal plane and non-electrical sidewalk sockets.

(3) It shall be a violation of these rules to erect, place or install street furniture without a revocable consent pursuant to Chapter 7 of this Title or a permit pursuant to this section.

##### **(b) Permit Requirements.**

All permits are subject to applicable provisions contained in Section 2-02 of these rules.

##### **(c) General Conditions.**

**(g) Non-electrical Sidewalk Sockets.**

Veteran organizations of the Armed Services may, with the consent of the Commissioner and owners of the abutting property, place flagpole sockets at least five feet apart and at least eighteen inches, but no more than twenty-four inches, from the face of the curb. When the sidewalk socket does not have a flagpole in it, it shall be capped or covered and flush with the sidewalk.

**(h) Bicycle Racks.**

No person shall install a bicycle rack without a permit. All racks shall be installed in compliance with the bicycle rack clearances, which may be obtained from the Department's permit office. Based on sound engineering judgment and where pedestrian volume will allow, the minimum clearances may be waived. A site request that adheres to minimum clearances shall be denied where the bicycle rack would interfere with the safe passage of pedestrians.

**(i) Maintenance Required by the Permittee or Property Owner.**

- (1) Street furniture shall be maintained in a safe condition at all times.
- (2) Street furniture shall be graffiti and litter free at all times.
- (3) The Department may order the repair, replacement or removal of unsafe or defective street furniture.
- (4) Non-compliance shall result in permit revocation pursuant to Section 2-02 of these rules.

**Section 2-11  
Street Openings and Excavations**

**(a) Permit Required.**

- (1) No excavations shall be made in any street unless a Street Opening Permit is obtained.
- (2) Prior to any excavation or street opening pursuant to a franchise or revocable consent, all permits required by these rules shall be obtained.
- (3) Street Construction in Historic Districts

No planned street construction, reconstruction or maintenance operation shall be undertaken in a designated historic district unless preapproved in

writing by the Landmarks Preservation Commission. The provisions of subdivision (g) of this section also apply.

**(b) Permit Requirements.**

(1) All permits are subject to applicable provisions contained in Section 2-02 of these rules.

(2) A permittee shall obtain a separate permit for each 300 linear feet of a block segment and for each intersection where work is to be performed.

**(c) Conditions.**

(1) Proper Notification

Permittees and owners of underground facilities shall comply with State of New York Industrial Code Rule 53 relating to Construction, Excavation and Demolition Operations at or near Underground Facilities. Permittees shall take the precautions necessary to protect such pipes, mains, conduits, and other appurtenances at their own expense.

(2) All work shall be done in accordance with the specifications and the provisions of this Section 2-11.

(3) All debris on the street shall be removed at the expiration of the permit, unless otherwise stipulated.

**(d) Application.**

(1) Applications shall include:

(i) a description of the work to be performed;

(ii) the reason for the work;

(iii) the street address including the nearest cross streets where the excavation or street opening is to be made.

(iv) a sketch indicating the size and location of the proposed opening(s) which shall include:

(A) the distance in feet from the nearest intersection and from the nearest curbline;

(B) the dimensions of the opening including length and width; and

(C) the existing parking restrictions.

(v) the start and estimated completion dates;

(vi) the type of pavement or surface to be opened;



(vii) whether the proposed work will be on a protected street (if so, the provisions of the subdivision (f) of this section apply);

(viii) the name and address of the compaction testing company or laboratory, as required; and

(ix) the name of the contracting City agency, contract number, and OCMC reference number, if applicable.

(2) No trees within the sidewalk area shall be disturbed or removed without the permission of the Department of Parks and Recreation.

**(e) Excavation and Restoration Requirements.**

**(1) Proper Notice**

- (i) Permittees shall notify the Police Department and the Communications Centers of the Fire Department and the Department of Transportation of construction and street operations which require street closing permits at least twenty-four hours in advance of the commencement of non-emergency work.
- (ii) All permittees shall comply with the provisions of subdivision (g) of section 2-02 of these rules, if applicable.

**(2) Breaking Existing Pavement**

Precutting of pavement wearing course and base shall be required for pavement removal. The use of a "Ram Hoe" or truck mounted pavement breaker is not permitted, unless otherwise authorized. Only hand held tools may be used for this purpose. This applies to all streets at all times. The permittee shall be responsible for keeping the construction area as clean and neat as possible during the permit life. No material shall restrict water flow in gutters. All possible arrangements for the safety of the general public shall be maintained. Every effort shall be made to keep the pavement opening dimensions to an absolute minimum.

**(3) Excavation**

**(i) Sheet piling and Bracing**

The sides of every open excavation five feet or more in depth shall be securely held by adequate timber, sheet piling and bracing where the earth is not sloped to the angle of repose of the material, and where unsafe conditions are created due to composition of the soil, climatic conditions, depth of excavation or construction operations.

**(ii) Tunneling or Jacking**

No person shall make any installation or repair between two or more street openings by means of tunneling or jacking, without a permit.

Tunneling or jacking may be permitted for the installation or replacement of a lateral connection provided the opening does not exceed eight inches in diameter. Full trenching shall be required for all waste line repair/connections.

#### (4) Traffic Maintenance

(i) No more than one lane of traffic may be obstructed, except as provided by OCMC stipulations, or as otherwise authorized by the Commissioner.

(ii) All unattended street openings or excavations in a driving lane, including intersections, shall be plated, except as otherwise directed by the Commissioner. The Commissioner may require all street openings and excavations at any location to be plated when no work is in progress. In the case of gas or steam leaks, barricades in accordance with the New York State or Federal Manual on Uniform Traffic Control Devices shall be used until the leak is corrected.

(iii) Barricades, signs, lights and other approved safety devices shall be displayed in accordance with the New York State or Federal Manual on Uniform Traffic Control Devices.

(iv) The permit may restrict street operations and construction within critical areas to nights, weekends, or off-traffic hours. (Hours other than weekdays 7 a.m. - 6 p.m. will require a noise variance granted by OCMC.)

(v) Flagpeople. Permittees whose work results in the closing of a moving traffic lane, which requires traffic to be diverted to another lane, shall, at all times while actively working at the site, post a flagperson or utilize an authorized plan for the maintenance and protection of traffic at the point where traffic is diverted to assist motorists and pedestrians to proceed around the obstructed lane.

#### (5) Temporary Closing of Sidewalks

A minimum of five feet sidewalk width of unobstructed pedestrian passageway shall be maintained at all times. Where openings and excavations do not allow for five feet of unobstructed pedestrian passageway, a temporary sidewalk closing permit is required.

#### (6) Work Site Maintenance

(i) All excavated material shall be either removed from the site or stockpiled at a designated curb, properly barricaded in accordance with the New York State or Federal Manual on Uniform Traffic Control Devices and stored to keep gutters clear and unobstructed in accordance with Section 2-05 of these rules.

(ii) All obstructions on the street shall be protected by barricades, fencing, or railing, with flags, lights, or signs in accordance with the New York State or Federal Manual on Uniform Traffic Control Devices placed at proper intervals and during the hours prescribed. During twilight hours the flags shall be replaced with amber lights.

#### (7) Storage of Materials

(i) A street opening permit includes permission to store construction materials in a designated area adjacent to the permitted worksite.

(ii) No separate permit shall be required for the storage of equipment, excluding cranes, in a designated area in compliance with any applicable stipulations on the permit.

(iii) The designated storage area(s) are subject to review and approval by OCMC.

#### (8) Backfill and Compaction

(i) Upon completion of repairs in a street, permittees shall backfill street openings and excavations in a manner in accordance with the specifications. All materials used for backfill shall be free from bricks, blocks, excavated pavement materials and/or organic material or other debris.

(ii) Backfill material shall be deposited in horizontal layers not exceeding twelve inches in thickness prior to compaction. A minimum of ninety five percent of Standard Proctor maximum Density will be required after compaction.

(iii) When placing fill or backfill around pipes, layers shall be deposited to progressively bury the pipe to equal depths on both sides. Backfill immediately adjacent to pipes and conduits shall not contain particles larger than three inches in diameter.

(iv) Compaction shall be attained by the use of impact rammers, plate or small drum vibrators, or pneumatic button head compaction equipment. Hand tamping shall not be permitted except in the immediate area of the underground facility, where it shall be lightly hand tamped with as many strokes as required to achieve maximum density. The definition of the "immediate area" shall be a maximum of eighteen inches from the facility.

(v) Where sheeting has been used for the excavation it shall be pulled when the excavation has been filled or backfilled to the maximum unsupported depth allowed by the New York State Department of Labor, Industrial Code Rule 23 and Title 29, Code of Federal Regulations, Part 1926, Safety and Health Regulations for Construction. Where a difference exists between regulations, the more stringent requirements shall apply.

(vi) As a measure of maximum density achieved for temporary restoration, the pavement surface shall not sink more than two inches from the surrounding existing surface during the life of the temporary restoration. More than two inches of settlement shall be deemed a failure of the compaction of the backfill and cause the removal of said backfill to the subsurface facility and new fill installed and properly compacted.

(vii) The permittee shall be required to furnish the Department with copies of in-process compaction reports certified by a Professional Engineer as to the compliance with the requirement of the aforementioned backfill requirements. This certified compaction report shall be submitted along with the cutform for every tenth street opening permit issued to the permittee or as directed by the Commissioner.

#### (9) Temporary Asphaltic Pavement

(i) Immediately upon completion of the compaction of the backfill of any street opening, the permittee shall install a temporary pavement of an acceptable asphalt paving mixture not less than four inches in thickness after compaction, flush with the adjacent surfaces.

(ii) The permittee has the option of installing full depth pavement using an acceptable asphalt paving mixture immediately upon completion of the compaction of the backfill, excluding reconstructed protected streets and full-depth concrete roadways.

(iii) Upon the expiration of the permit, all equipment, construction materials and debris shall be removed from the site, unless otherwise stipulated.

(iv) When final restoration is to be done, the materials are to be removed with hand tools to a depth necessary to accomplish the final restoration.

#### (10) Plating and Decking

(i) All plating and decking installed by the permittee shall be made safe for vehicles and/or pedestrians and shall be adequate to carry the load.

(ii) The size of the plate or decking shall be large enough to span the opening, be firmly placed to prevent rocking and shall overlap the edges of trenches and openings and be sufficiently ramped to provide smooth riding and safe condition.

(iii) All plating and decking shall be fastened by splicing, countersinking or otherwise protected to prevent movement.

(iv) Where deflections are more than 3/4", heavier sections of plates or decking or intermediate supports shall be installed.

(v) All permittees who install plating and decking during the winter months shall either post signs at the site indicating "Steel Plates Ahead Raise Plow" or shall countersink said plates flush to the level of the roadway. All signs shall be of the size and type specified in section 6B-33 of the New York State or Federal Manual on Uniform Traffic Control Devices. These signs shall be placed on the sidewalk, adjacent to the curb, facing vehicle traffic five feet prior to the plates. On two-way streets, signs shall be placed on both sides of the street five feet prior to the plates.

(vi) All plating and decking shall have a skid-resistant surface equal to or greater than the adjacent existing street or roadway surface, but in no event less than a New York State skid resistance number of 36.

#### (11) Base

(i) Concrete and asphalt base material shall conform with Department specifications.

(ii) Concrete base shall be properly plated except where other stipulations have been granted in writing by OCMC.

(iii) Concrete for base shall be plated in a driving lane and intersections or barricaded in accordance with the New York State or Federal Manual on Uniform Traffic Control Devices in a parking lane for a minimum of three days to permit proper cure of concrete, unless otherwise specified by the Department.

(iv) Hot asphalt binder materials may be used in place of concrete for non protected and/or resurfaced streets at a thickness ratio of one and one-half inch of asphalt for every inch of concrete.

(v) The concrete base shall be restored at the same grade as the existing base; at no time may it be brought up to the asphalt course unless authorization has been granted by the Commissioner.

(vi) At no time will asphalt other than binder be permitted as a base course, unless otherwise authorized by the Commissioner.

(vii) Conduit or pipes shall be installed at a minimum depth of 18 inches from the surface of the roadway, or below the base, whichever is greater. Where conduits and pipes cannot be installed at the required minimum depth, protective plating shall be installed over the facilities upon written request from the permittee and receipt of written approval of the Department.

(12) Wearing Course

(i) Wearing course material shall conform to the Department's Specifications.

(ii) The finished grade of the wearing course shall be flush with surrounding pavement on all sides of the cut; the restored wearing course shall extend for a distance of six inches (6") beyond the edge of the base course.

(iii) The minimum thickness of the wearing course on full depth asphalt restoration shall be two inches.

(iv) When more than one roadway opening is made against a single permit and the openings are less than three feet apart and the openings are machine excavated, the existing wearing course between such openings shall be restored integrally with the opening wearing course restoration, in accordance with the current Standard Detail H-1042.

(v) When openings are made by digging with hand tools or hand held pneumatic tools, the existing wearing course between such openings need not be replaced.

(vi) When a street opening is twelve inches or less from the curb, the entire pavement between the opening and the curb shall be excavated and replaced in kind, in accordance with the current Standard Detail H-1042. The pavement base shall be inspected and repaired where necessary and a new wearing course shall be installed from the curb to the street opening. The areas described above shall be included in the permittee's guarantee.

(vii) Whenever any street is excavated, the permittee shall restore such street in kind as to material type, color, finish or distinctive design.

(viii) Pavements shall be restored in kind in designated historic districts and on streets constructed with cobblestones or other distinctive pavements, or as directed by the Commissioner.

(ix) The wearing course shall be properly sealed completely at the edges of the cut with liquid asphaltic cement ironed in with a heated smoothing iron or by means of infrared treatment to prevent water seepage into the pavement.

(x) Any roadway pavement markings, including but not limited to, crosswalks and lane lines, and any parking or regulatory signs or supports shall be replaced in kind to Department specifications.

(xi) Final (permanent) restorations shall be completed within ten (10) working days of the expiration of the permit. During winter months, the Commissioner may vary the above requirement.

(xii) For trenches on protected streets, six (6) inches of base and six (6) inches of the wearing course shall be cut back on both sides of the trench. For trenches on non-protected streets, (6) inches of the wearing course shall be cut back on both sides of the trench, provided, however, that the total cut is a minimum of eighteen (18) inches wide.

### (13) Concrete Pavements

(i) When street openings are made in concrete pavements, the pavements shall be saw cut full depth for the entire perimeter of the street opening.

(ii) The concrete restoration shall have the same depth, strength and finish as the original pavement.

(iii) The restoration area shall be plated and maintained until enough strength has developed to sustain traffic without deleterious effect to the roadway.

(iv) Reinforcing shall be replaced in kind and spliced as per specifications for reinforced concrete pavement.

(v) Asphalt restorations will not be permitted in concrete streets or concrete bus stop areas.

### (14) Color Coding

(i) At each excavation, the permittee shall imbed in the restoration or pavement immediately adjacent to it in the area closest to the curb line, a marker or color coding bearing the identification code or color assigned to the permittee by the Department.

(ii) Methods shall be approved by the Commissioner.

(iii) Coding shall take place upon leaving the site, whether the work is completed or not, for the purpose of easily identifying the permittee's openings and subsequent restoration.

(iv) Permittees shall be required to maintain color codes or markers throughout the guarantee period.

(v) Placement of Coding

(A) Coding shall be placed approximately six inches adjacent to the cut or trench (toward the curb where practical).

(B) For cuts or trenches ten feet or less, one marker in the linear center is required. Linear center shall mean along the theoretical six inch distance toward curbside.

(C) For cuts or trenches from ten feet to seventy-five feet two markers shall be placed approximately one-third the length apart.

(D) For cuts or trenches over seventy-five feet markers shall be placed every twenty-five linear feet maximum.

(vi) After pavement restorations, markings may be placed along the center of such restorations, rather than six inches adjacent as described above in (v)(A).

(vii) Color codes shall be assigned through Quality Control Procedure Q.P. 3 for permittees other than those listed below. Final pavement markers may be used as an alternative to color codes provided such use is approved by the Department.

(A) NYNEX-Cherry red marker, 3 inch diameter solid circle.

(B) Empire City Subway-Chrome yellow marker, 3 inch diameter solid circle.

(C) Consolidated Edison Co.-Regal blue marker, 3 inch diameter solid circle.

(D) Brooklyn Union Gas Co.-White marker, 3 inch diameter solid circle.

(E) Plumbers-Hunter green marker, 3 inch diameter solid circle.

(F) Signals and Street Lights-Orange marker, 3 inch diameter solid circle.

(G) Sewers-Aqua marker, 3 inch diameter solid circle.

(H) Water Supply-Bright silver marker, 3 inch diameter solid circle.

(I) Long Island Lighting Co.-Bronze marker, 3 inch diameter solid circle.

(J) Metropolitan Transit Authority-Tan marker, 3 inch diameter solid circle.



(K) Buckeye Pipe Line-Chrome yellow marker, 3 inch diameter solid circle.

(L) Fire Department-Cherry red marker, 3 inch solid triangle.

(M) Cable T.V.-Regal blue marker, 3 inch triangle.

(15) Quality Control Program Requirement for Roadways

(i) All permittees engaged in street openings, shall complete the work so as to provide smooth riding surfaces throughout the guarantee period on their respective restorations.

(ii) A documented quality history of restoration shall be maintained by the responsible permittee. This information should show that inspections are made at some optimum intervals to assure conformance to the guarantee.

(iii) Quality Control Program information shall be made available to the Bureau upon request.

(iv) The use of experimental methods or materials may be authorized under selective conditions, upon application to the Bureau for approval prior to use on the City streets.

(v) Any permittee may file a proposed Quality Control Program with the Commissioner for approval. The Commissioner may waive any of the foregoing specification requirements as part of an approved program of Quality Control. Any waiver so granted shall remain in effect as long as the approved program is implemented in a manner satisfactory to the Commissioner or until the Commissioner's approval is rescinded.

(16) Other Requirements

(i) Cutforms

(A) Within 30 calendar days of the completion of the permanent restoration, each permittee shall file a cutform which includes:

1. a sketch showing the exact dimensions and location of the restored area, and a description of the opening or trench defined by distance in feet from the nearest intersection and from the nearest curbline;
2. the street opening permit number;
3. the date of completion of the final restoration;
4. the name of the final pavement restoration contractor; and

5. a compaction report certified by a New York State licensed professional engineer.

(B) Failure to file cutforms in a timely manner may jeopardize future permit requests and may subject permittees to summonses.

(ii) Guarantee Period

Permittees shall be responsible for permanent restoration and maintenance of street openings and excavations for a period of three years on unprotected streets, and up to five years on protected streets commencing on the restoration completion date. This period shall be the guarantee period.

(iii) Permittees shall comply with all applicable sections of these rules, the specifications, and all other applicable laws or rules.

**(f) Excavations And Street Openings In Protected Streets.**

No street opening activity shall be allowed, except for emergency work or as authorized by the Commissioner, in a protected street for a period of five years from the completion of the street improvement. In addition to this subdivision (f), all provisions of Section 2-11 shall apply to protected streets.

(1) Permit Issuance

No permit to use or open any street, except for emergency work, shall be issued to any person within a five year period after the completion of the construction of a capital project relating to such street requiring resurfacing or reconstruction unless such person demonstrates that the need for the work could not have reasonably been anticipated prior to or during such construction. Notwithstanding the foregoing provision, the Commissioner may issue a permit to open a street within such five year period upon a finding of necessity therefor.

(2) Conditions

Permittees shall be responsible for contacting the Department of Design and Construction to determine whether a street is scheduled to be rebuilt under a street reconstruction project. Notwithstanding the foregoing provision, a permittee performing emergency work need not contact such Department.

(3) Application

(i) Permittees shall include on the application the justification for any street opening activities on protected streets.

(ii) The permittee shall attach the "Protected Street Opening Permit Application Attachment" to the Street Opening permit application prior to obtaining the permit.

#### (4) Restorations

(i) No backfill of any opening or excavation on a protected street shall be performed unless the permittee notifies the Department at least two hours prior to the scheduled start time for the backfill except as otherwise authorized by the Commissioner. In no case shall the permittee commence the backfill prior to the scheduled start time. For the base and wearing course, the permittee shall fax its daily paving schedule to the Department prior to commencing work. In addition, during the backfill and compaction phase of the work, permittees must provide, on site, a certified compaction tester from an approved laboratory or a licensed certified tester to test that the compaction of the backfills is in accordance with the Department's rules and specifications.

(ii) The Department may inspect any phase of the work, including but not limited to, initial excavation, backfill and compaction, performance of required cut backs, and final restoration.

(iii) A certification issued by a New York State licensed professional engineer shall be provided to the Department within thirty days of completion of work on protected streets. The certification shall state that the type of work performed was as described in the permit application, and that all phases of the restoration were performed in accordance with Department rules and specifications.

(iv) Permittees shall be responsible for the proper repair of the street opening or excavation for a period of three years from the date of completion or for the duration of the protected street guarantee period, whichever is longer.

(v) All restorations shall conform with the latest version of Department standard details 1042A and 1042B.

(vi) Where street openings cannot be confined to within 8 feet of the curb line, including the required cut back, and/ or within the sidewalk area, full curb to curb roadway restoration shall be required where protected street status has been in effect for 18 months or less, unless otherwise directed by the Commissioner.

(vii) In the event a permanent restoration pavement installed in violation of the provisions of subparagraph (i) of this paragraph (4) settles more than two inches below the surrounding existing surface during the life of such permanent restoration, this shall be deemed a failure of the backfill compaction, in which case, the permittee shall remove all of the failed backfill, down to the subsurface facility, and install new, properly compacted backfill.

**(g) Emergency Street Openings and Excavations.**

**(1) Permit Requirements**

(i) No person shall perform emergency work without obtaining an emergency number from the Department. Permittees shall fax the Emergency Street Opening Permit request form to the Department's Emergency Authorization Unit to obtain an emergency permit number, unless otherwise directed by the Commissioner.

(ii) An emergency permit number may be requested only for emergency work performed on existing services. An emergency permit number shall not be obtained for work to be performed pursuant to a CAR.

**(2) Conditions**

(i) A permittee shall begin emergency work within two hours after obtaining an emergency permit number.

(ii) A permittee shall perform emergency work on an around-the-clock basis until the emergency is eliminated, unless otherwise directed by the Commissioner. Once the emergency is eliminated on a critical roadway listed in subdivision (c) of section 2-07 of these rules, the permittee shall suspend work, restore the full width of the roadway and resume work, if necessary, during the non-restricted hours indicated in that subdivision. Such resumption of work shall only be undertaken within the 48-hour duration of the emergency permit number. A permittee working with an emergency number on a roadway other than a critical roadway may suspend or resume work at any time within the 48-hour period covered by the emergency number.

(iii) No more than one lane of traffic may be obstructed, however, if an emergency street opening is larger than 8 feet by 10 feet, permittee may occupy up to a maximum of 12 feet on one side of the opening and a maximum of 6 feet on the other side.

(iv) All unattended street openings or excavations in a driving lane, including intersections, shall be plated, except as otherwise directed by the Commissioner. The Commissioner may require all street openings and excavations at any location to be plated when no work is in progress. In the case of gas or steam leaks, barricades in accordance with the New York State or Federal Manual on Uniform Traffic Control Devices shall be used until the leak is corrected.

(v) Barricades, signs, lights and other approved safety devices shall be displayed in accordance with the New York State or Federal Manual on Uniform Traffic Control Devices.

(vi) A minimum of five feet sidewalk width of unobstructed pedestrian passageway shall be maintained at all times. Where openings and excavations do not allow for five feet of unobstructed pedestrian passageway, pedestrians shall be directed by signs to the opposite sidewalk

(vii) No private vehicles shall be kept within the work area.

(viii) A permittee shall submit an application for a regular permit, and for Landmarks Preservation Commission permits if applicable, within two business days of receiving an emergency permit number.

(ix) Emergency work in the African Burial Ground and Commons Historic District areas, requires the permittee excavate with utmost caution and the permittee shall not remove any excavation or debris from the site prior to Landmarks Preservation Commission's review of the excavation.

(x) If an emergency street opening is larger than 8 feet by 10 feet, permittee shall occupy a maximum of 12 feet on one side of the opening and a maximum of 6 feet on the other side.

(xi) If any emergency street opening results in a width of less than 11 feet in each direction for vehicular traffic, this shall be deemed a full roadway closure. In such case, the Police Department, the Communication Centers of the Fire Department and the Department of Transportation shall be notified simultaneously with the closure.

(xii) Emergency permit numbers shall be kept on site and shall be presented upon the request of any police officer or other City employee authorized by the Commissioner to enforce these rules. Any additional information regarding the emergency work that is requested at the site by a Department inspector shall be provided by the permittee and/or the persons performing such work.

(xiii) Flagpeople. Permittees whose work results in the closing of a moving traffic lane, which requires traffic to be diverted to another lane, shall, at all times while actively working at the site, post a flagperson or utilize an authorized plan for the maintenance and protection of traffic at the point where traffic is diverted to assist motorists and pedestrians to proceed around the obstructed lane.

(xiv) All permittees shall comply with the provisions of subdivision (g) of section 2-02 of these rules, if applicable.

### **(3) Application**

When applying for an emergency permit number by fax, a permittee shall submit all information required by the Department. This information includes, but is not limited to, the following:

- (i) Name of permittee
- (ii) Permittee ID #
- (iii) Location of emergency (including borough)
- (iv) Type of emergency (including interruption of service)

## **Section 2-12 Vacant Lots**

### **(a) Property Owners' Responsibility.**

Whenever the Commissioner shall so order or direct, property owners shall, at their own expense:

- (1) fence any vacant lot(s);
- (2) fill any sunken lot(s) in compliance with Section 2-06 or other requirements of these rules;
- (3) cut down any raised lot(s) in accordance with the specifications of the Department and Section 2-02 of these rules.

### **(b) Failure to Comply.**

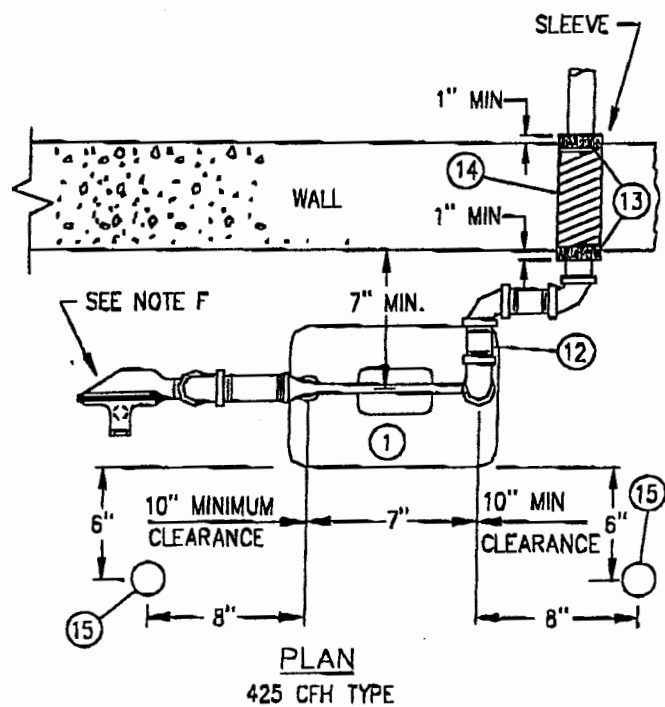
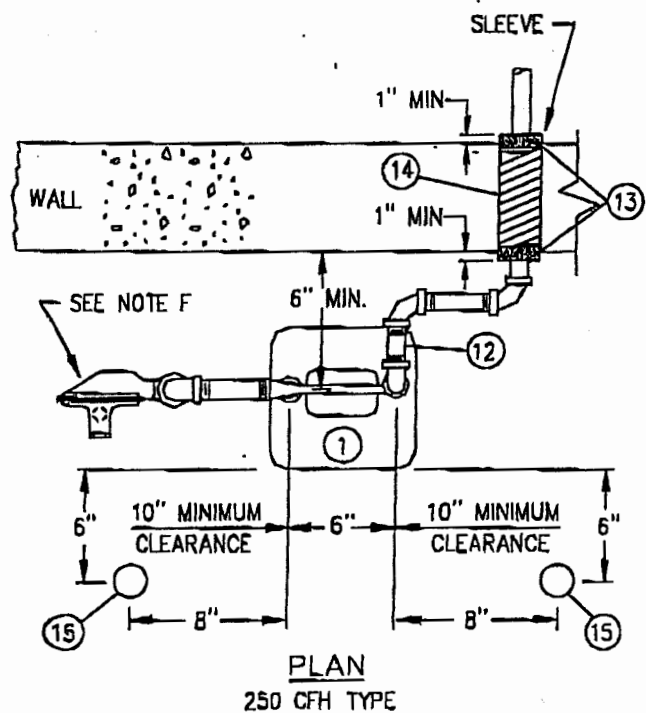
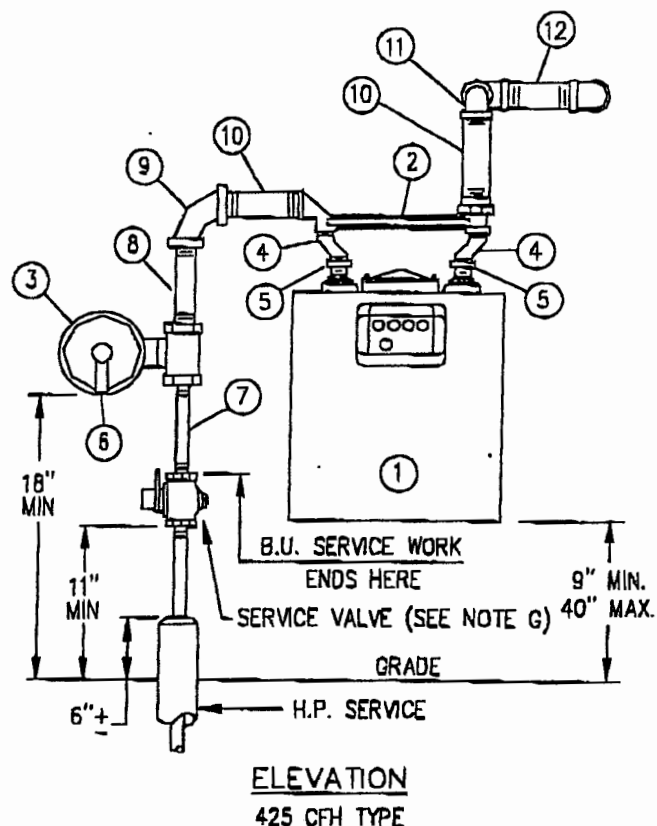
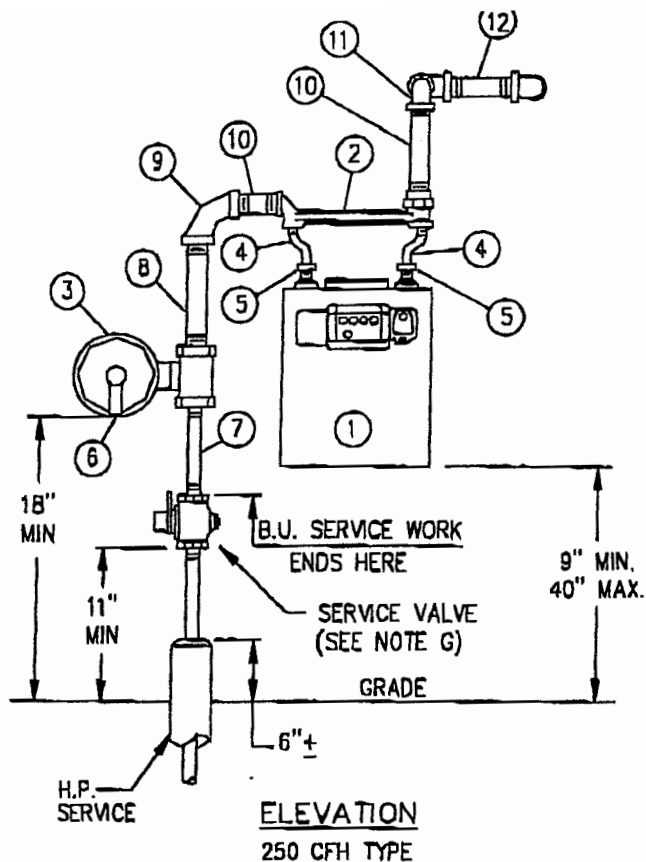
Upon the property owner's failure to comply with the requirements of paragraph (a), above, the Department may perform the work or cause it to be performed, the cost of which, together with the administrative expenses, shall constitute a debt recoverable from the owner by lien on the property affected, pursuant to Section 19-152 of the Administrative Code.

### **(c) Reinspection.**

Upon request of the property owner to the appropriate borough office, the Department shall provide a reinspection by a different departmental inspector than the one who conducted the first inspection.

### **(d) Permit Requirements.**

The property owner shall obtain a permit from the Department before performing any work pursuant to this section. All permits are subject to applicable provisions contained in Section 2-02 of these rules.



# NOTES AND BILL OF MATERIAL ON REVERSE SIDE

## REFERENCES:

STD. DWGS.  
S-001 CS-7  
S-008 CS-7A  
SM-407 CS-10  
SP-803

SPECS.  
CSSP-6100  
CSSP-6500

REVISIONS: **1** • UPDATE METERS, MATERIALS AND REFERENCE SPECIFICATIONS



SINGLE H.P. 60 PSIG METER AND REGULATOR  
OUTSIDE INSTALLATION  
0-250 CFH AND 0-425 CFH RANGE

DATE: OCT. 26, 1971	REV. NO: 1	EFFECTIVE DATE: APRIL 3, 1995
DESIGN: F. TAYLOR	STD. DWG. NO. CS-12	
DRAWN: J. CASTALUCCI		

**NOTES:**

- 1** A. NOTE KEY REQUIREMENTS FOR THE CONSTRUCTION OF METER HEADERS, REGULATORS AND METER INSTALLATIONS ARE CONTAINED IN BROOKLYN UNION SPECIFICATIONS CSSP-6100 AND CSSP-6500.
- B. ADDITIONAL FITTINGS MAY BE REQUIRED TO MAKE THE METER AND REGULATOR INSTALLATION.
- C. BROOKLYN UNION SHALL NOT BE RESPONSIBLE FOR FITTING DIMENSIONS OR FOR SCALED DIMENSIONS.
- D. FOR FLOW RATES BETWEEN 425 CFH AND 940 CFH (60# SYSTEM) AND 775 CFH AND 1550 CFH (15# SYSTEM) SEE STANDARD DRAWINGS CS-7 AND CS-7A.
- E. FOR FLOW RATES GREATER THAN 940 CFH (60 PSIG SYSTEM) OR 1550 CFH (15 PSIG SYSTEM) SEE SPECIAL ENGINEERING METER AND REGULATOR LAYOUT.
- F. REGULATOR VENT MUST FACE DOWN AND BE EQUIPPED WITH A RAIN AND INSECT RESISTANT SCREEN. VENT MUST BE A MINIMUM OF 18" ABOVE GRADE AND 18" FROM ANY OPENING WHICH COULD ALLOW VENTED GAS TO ENTER THE BUILDING.
- G. SERVICE VALVE MUST BE PAINTED RED.
- H. WHERE VEHICULAR TRAFFIC IS A CONCERN, INSTALL DEADMEN. SEE STANDARD DRAWINGS SM-407 AND SP-803 FOR INSTALLATION REQUIREMENTS.



**METER CHART**

METER CAPACITIES	0 - 250 CFH RANGE	0 - 425 CFH RANGE
AMERICAN	AL-250	AL-425
ROCKWELL EQUI-METER	275	415
SPRAGUE SCHLUMBERGER	250	400

15	DEADMEN FOR METER SET PROTECTION, (SEE NOTE H)	-----	-----	CONTRACTOR
14	YARN, PACKING	-----	-----	CONTRACTOR
13	FLEXIBLE SEALING COMPOUND (DUXSEAL)	-----	-----	CONTRACTOR
12	HOUSE PIPING TO LOAD	-----	-----	CONTRACTOR
11	ELBOW, 90° M.I., SIZE OF HOUSE PIPE RISER x	1"	1-1/4"	CONTRACTOR
10	NIPPLE 4" MINIMUM (LENGTH AS REQUIRED)	1"	1-1/4"	CONTRACTOR
9	ELBOW/REDUCING ELBOW, 90° M.I.	1"	1" x 1-1/4"	CONTRACTOR
8	NIPPLE, 4" MINIMUM (LENGTH AS REQUIRED)	1"	1"	CONTRACTOR
7	NIPPLE 4" MINIMUM (LENGTH AS REQUIRED)	3/4"	3/4"	CONTRACTOR
6	VENT ASSEMBLY WITH INSECT RESISTANT SCREEN, IF REQUIRED, 1"	40 - 70 - 901	40 - 70 - 901	B.U.
5	METER, CAP CONNECTION	42 - 70 - 140	42 - 70 - 145	B.U.
4	METER, OFFSET SWIVEL	42 - 70 - 545	42 - 70 - 542	B.U.
3	REGULATOR, FISHER S-102, 3/4" x 1" w/ 1/8" ORIFICE OR APPROVED EQUAL	80 - 87 - 101	80 - 87 - 101	B.U.
2	METER BAR, WITH INSULATED OUTLET, OR APPROVED EQUAL	42 - 70 - 080	42 - 70 - 072	B.U.
1	METER	250	425	B.U.
NO.	ITEM	B.U. CODE NO.	B.U. CODE NO.	SUPPLIED BY

**BILL OF MATERIAL**



**END OF SECTION 01010**

## **SECTION 01040 SITE PREPARATION**

### **1.1 DESCRIPTION**

The work for this item and its cost shall include mobilizing everything necessary to complete the work; preparing the site for construction; clearing and grubbing; installing the: decontamination pad, meteorological station; providing a project sign, and utilities; restoration and demobilizing from the site, and satisfactorily completing all work required by Contract Documents and not included in the other payment items.

### **1.2 CLEARING AND GRUBBING**

The Contractor shall clear and grub all areas necessary under this contract as required by the Engineer. All debris and other material cleared and grubbed from the site shall be disposed off-site by the Contractor in accordance with the applicable regulations.

Clearing shall be defined as the removal of trees, brush, down timber, rotten wood, rubbish, any other vegetation, concrete, pipe and objectionable material from areas within 5 feet of the limits of the completed work, or as directed by the Engineer.

Grubbing shall be defined as the removal of stumps, roots, brush, organic materials and debris to a depth of 0.5 feet below the planned subgrade or slope surface, or as directed by the Engineer.

During clearing and grubbing, as well as during all activities involved with this Project, including excavation of contaminated soil, all existing wells shall be protected. Any damage to the wells shall be repaired or replaced by the Contractor at his cost.

### **1.3 UTILITIES**

The Contractor shall provide all necessary utilities to the site for proper execution and satisfactory completion of this Contract. Contractor shall be responsible for utility markouts.

This includes furnishing, operating and maintaining the following utilities, and removal (if required) upon completion of the project:

- a. Electricity
- b. Telephone service
- c. Potable water supply
- d. Sanitary facilities
- e. Natural Gas
- f. Cable Internet service

### **1.3.1 Electricity**

No use shall be made of existing utilities located on the project site without the prior approval of the Department/Engineer.

Electricity and lighting shall be in accordance with federal, state and local regulations as well as local utility company requirements. All work shall be in accordance with the National Electrical Code (NEC), National Fire Protection Association (NFPA), American National Standards Institute (ANSI), National Electrical Manufacturers Association (NEMA), National Electrical Safety Code (NESC), and the Occupational Safety and Health Administration (OSHA). All materials shall be listed with Underwriters Laboratories (U.L.). Contractor shall obtain approvals of inspection agencies as required.

All electric service for the project site shall be provided where required. It shall be the responsibility of the Contractor to coordinate electric service installation with the local utility company. The Contractor shall be responsible for installation, service, energy and shut-off charges and for all permits, fees, applications, notifications, etc., for installation. The Contractor shall be responsible for all delays in operation of the systems due to delays in installation by the utility company.

Site electric service shall originate at a source adjacent to the project site. The electric service must be suitable for running the facilities for the duration of the remediation project. On-site generators shall not be used as a primary source of electric supply. If on-site generators are used, they shall be designed to eliminate any explosive hazard and noise (less than 70 dbA measured at 3'0" from unit). It shall be the responsibility of the Contractor to ascertain site power requirements and provide appropriate service.

Service shall be brought to the Project Site by conventional above ground poles (aerial service) unless otherwise directed by the local utility.

Service shall be brought to immediate work areas of the site, as required, by construction-type power conductors/rigid galvanized steel conduit. Distribution boxes, panel boards and circuit wiring shall be provided to meet the required power needs.

Lighting shall be provided for all work areas where natural light is inadequate to perform the work safely. Minimum illumination intensities shall be in accordance with 29 CFR 1910. 120 (m) (1) Table H-102-1 within all work areas and within all structures.

All wiring and connections shall comply with NFPA Article No. 70 - The NEC code which covers requirements for electric equipment and wiring in both hazardous and non-hazardous (unclassified) locations.

### **1.3.2 Telephone**

The Contractor shall make all arrangements and pay all costs for providing separate and dedicated telephone lines.

The minimum quantity of phone lines to be installed shall be as follows:

- One telephone / fax line shall be installed in the Engineer/Department office until removal of the office trailer at the end of Part C Substantial Completion. The fax machine provided shall be specifically for use on a shared voice/fax line. Otherwise, a separate fax line also shall be provided.
- One or more phone line(s) as required for the remote alarm notification for the SVE system.
- One or more phone line(s) as required for the remote operation and monitoring of the ERH system.
- Any phone lines that the Contractor may require in order to facilitate work and for project security
- The Contractor has the option to relocate and reuse phone lines where possible; e.g., the ERH phone line could later be used as the SVE phone line.

#### **1.3.3 Potable Water Supply**

The Contractor shall determine the site water requirements and provide adequate on-site potable water from off-site sources for the entire duration of the project.

#### **1.3.4 Sanitary Facilities (Portable)**

Sanitary facilities, and disposal of sanitary wastes, shall be in accordance with New York State Department of Health and local requirements.

Adequate portable sanitary facilities for both male and female on-site personnel shall be provided throughout the contractor work area.

Waste from portable sanitary facilities shall be collected by a sanitary vacuum tank truck and disposed of off-site at least once every week during construction at the expense of the Contractor. Contractor shall obtain the services from a reputable, licensed sanitary waste company prior to construction. The proposed portable sanitary waste facilities shall be supplied/serviced in accordance with local sanitary codes and other applicable NYS Sanitary and Health codes.

#### **1.3.5 Natural Gas**

The Contractor shall determine the natural gas requirements for the site and make all arrangements and pay all costs for providing natural gas service. Details for natural gas connections are shown in Section 01010, Appendix A.

### **1.3.6 Cable Internet Service**

The Contractor shall make all arrangements and pay all costs for providing separate cable Internet service to the Engineer/Department office until removal of the office trailer.

### **1.4 DECONTAMINATION PAD**

The Contractor shall provide an area(s) within the containment area for decontamination. The decontamination area shall be a properly graded area that allows no deleterious material to leave the containment area. This will facilitate the Contractor to be able to pump the decontaminated washwater to a portable truck or tank for future treatment. The decontamination pad as shown in the drawings shall be located onsite near areas of bus traffic. The Contractor has the option to use a mobile decontamination pad or to install multiple pads as required to facilitate the work across the site.

A high pressure wash system shall be provided in the equipment decontamination pad and shall be suitably sized to provide a minimum pressure of 150 psi and a 0.5 gallons per minute flow and a nominal temperature of 180°F. Wash units for equipment decontamination shall be self-contained, portable high pressure water and detergent induction units.

Washwater from the equipment decontamination shall drain into the sump. The water shall be pumped from the sump to a temporary holding tank for future hauling to a NYSDEC permitted disposal facility system at the Contractor's expense. The Contractor also has the option to treat the water on site using the ERH or other temporary treatment system, provided that it meets the requirements and is approved by the NYCDEP. All water shall be removed from the site quickly so as not to interfere with the site operations. No washwater shall be discharged without prior approval of the engineer.

The Contractor shall be responsible for the provision of an adequately equipped decontamination area(s) which shall meet the following requirements and shall be approved by the Engineer. The Contractor also has the option to use a mobile decontamination area, provided that it meets the requirements outlined below.

- 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 the Exclusion Zone shall be decontaminated.
- b. Perimeter to be curbed and provided with splash guards.
- c. An impermeable membrane required to prevent seepage into the ground.
- d. Sumps, pumps, 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 a 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  $1.0 \times 10^{-7}$  cm/sec.

- f. All facilities to be at minimum 5 feet clear of the Contamination Reduction Zone boundary.
- g. The decontamination area shall be located at the exit of the exclusion zone.
- h. There shall be side wall panels, six feet high minimum, on two sides to prevent overspray.

The Contractor shall clean the decontamination area after daily use. No contamination shall be left behind. The Contractor will be required to dismantle, remove and properly dispose of the pad and all appurtenances at his own expense. No visible dirt, residue or washwater shall remain after removal of the pad.

## **1.5 PROJECT SIGN**

An entrance sign with the following specifications is to be installed at a location designated by the Department's representative adjacent to the site entrance road.

The sign shall be 4' high by 8' wide, and constructed of 3/4" medium density over lay 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. The sign will be erected on 2 each, 4" by 4" pressure treated post or similarly suitable material such as Western Red Cedar. The posts shall be imbedded a minimum of 30" below grade. The sign's background will be painted with white exterior oil base sign enamel with the exception of the fifth line which reads: 1986 N.Y.S. Environmental Bond Act Project. Its background will be yellow and the letters will be black. The third, fourth, and eighth lines will have green letters. The first, second, and sixth and seventh lines will have blue letters. The N.Y.S. logo will be painted as noted. Graphics to be Engineering Grade exterior vinyl with a minimum durability of 7-10 years exposed to elements. All adhesives are to be solvent resistant. The sign will be erected such that bottom of the sign is 6 feet above road surface.

An example sketch of the sign is provided as Figure 01040-1.

## **1.6 FENCING**

- A. The Contractor shall install a secure 5 foot high plastic construction fence (Tenax Alpi or equal) as necessary around open work areas to meet the requirements of the Health and Safety Plan. The Contractor shall erect fence for the work area only as necessary to facilitate operations and site security, as approved by the Engineer.

All temporary fencing shall be removed at the completion of the work and disposed off-site by the Contractor.

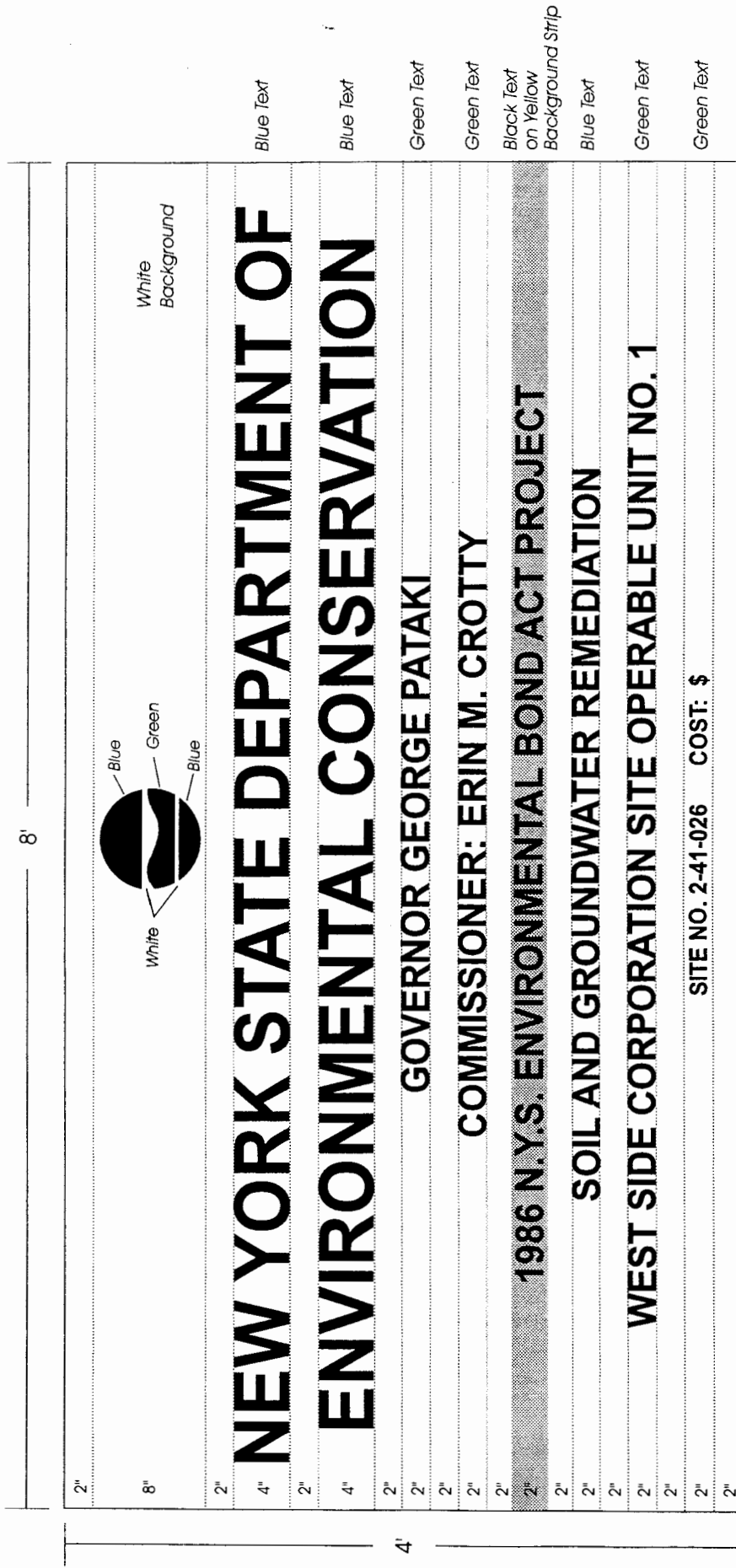
- B. The Contractor shall furnish and install an 8-foot high fence surrounding the ERH area that is topped by the three strands of barbed wire. The exact location of the fence shall be coordinated with the Engineer and bus company prior to installation.

The fencing shall include top tension wire, extension arms, barbed wire, continuous bottom horizontal rails, posts, concrete foundation, bracing, fabric ties, truss rods, stretcher bars, double leaf gates and mangates, as necessary to provide firm support and to allow easy access for personnel, trailers and equipment. The fence fabric shall be #9 gage galvanized steel wire interwoven to form a 2-inch diamond link, continuously meshed without any splice. The fence frames, posts, and post foundations shall conform to NYSDOT standards.

At the completion of ERH (Part B Substantial Completion) the Contractor shall remove the fence and all components for disposal off-site by the Contractor. All holes and areas of pavement damaged by the fence shall be restored to their pre-work condition.

- C. The Contractor shall remove fence along western property to facilitate access to Contractor's areas on NYCDEP property as required. Removed fence shall be replaced as necessary and as directed by the Engineer. Any fence that is not reused shall be disposed offsite by the Contractor.

END OF SECTION 01040



NOTE: Cost Amount to be Determined

**URS**

PROJECT SIGN

FIGURE 01040-1





## **SECTION 01050 SITE FACILITIES AND SERVICES**

### **1.1 DESCRIPTION**

A. The work for this item and its cost shall include the maintenance of the remedial work site, and providing site security and snow/ice removal during the length of the Contract. This includes operating and maintaining all the items described in this section, including supervision and administration staff. This remedial project will consist of three phases: construction, operation and maintenance, and removal of the facilities and structures from the site.

### **1.2 SITE SECURITY**

A. The Contractor shall be responsible for site security within the Project Site, 24 hours per day, seven days per week, for the duration of the Contract. The repair or replacement of any vandalism to the Contractor's work, equipment, or materials at the site shall be at the Contractor's expense. The security requirements specified in these Contract Documents are only minimum requirements. The Contractor has the option to provide additional security as desired, at his own expense.

B. The Contractor shall ensure that site security is maintained and that unauthorized personnel are not allowed on site. Any security problems shall be reported immediately to the Contractor's authorized representative. The Contractor shall be responsible for the expeditious correction of all problems observed. The Contractor shall report all problems and corrective actions taken to the Engineer.

C. The Contractor shall provide any security personnel with accommodations separate from the Department and Engineer.

D. The Contractor's office trailer shall be located as shown on the Drawings and maintained with communication links to all supporting agencies. Signs shall be posted at this facility indicating that all persons entering the site must sign in.

E. The Contractor shall be responsible for the control of all persons and vehicles entering and leaving the Project Site. No vehicles except as required for construction shall be allowed beyond the designated area. All construction vehicles leaving the site must pass through the decontamination area. The Contractor shall maintain a current list of authorized persons and shall submit copies of the updated list to the Engineer. The Contractor shall:

1. Require personnel to print full name and employer and sign in upon entering the Project Site and to sign out when leaving.
2. Maintain a log of all vehicles and equipment entering and leaving the Project Site.
3. Persons not associated with the project will require the Contractor's acceptance to be admitted on site.

4. Maintain a log of visitors.
5. Require that no person without OSHA 40-hour Health and Safety Training be allowed into the ERH area.

A log of all security incidents shall be maintained and furnished to the Engineer upon request.

F. The Contractor shall ensure that security fences and gates are completely closed and locked when there are no work activities at the site. Any breaks or gaps shall be repaired by the Contractor, at his expense, immediately. The Engineer shall be informed immediately of any vandalism to the fences, gates, or other secured areas.

G. The Engineer will have the right of approval and rejection of the Contractor's security personnel.

H. 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 response to foreseeable contingencies will 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.

### **1.3 FACILITIES**

This Section includes furnishing, operating and maintaining the following temporary facilities, and the removal of temporary facilities on completion of the project:

- a. A field office for use only by the Engineer and the Department. The field office will be removed by the Contractor following Part C Substantial Completion.
- b. Personnel decontamination, equipment storage and emergency medical facilities in accordance with OSHA and the Contractor's approved HASP.

All facilities specified shall be located on site within the Project Site boundary as shown on the Contract Documents or as approved by the Department/Engineer.

No use shall be made of existing facilities located on the Project Site without the prior approval of the Department/Engineer.

All materials shall be suitable for their intended use and shall conform to applicable codes and standards. Manufacturers' requirements shall be strictly adhered to.

All trailers and treatment system housing shall be provided with the following minimum requirements:

- a. Lighting; electric, non-glare type producing a minimum illumination level of 50 foot-candles measured at desk height or approximately 2'-6" AFF.
- b. Heating and cooling; capable of maintaining ambient temperatures within the structure of 70 degrees Fahrenheit (plus or minus three degrees).
- c. Potable bottled water.
- d. Fire extinguisher; non-toxic dry chemical type, UL-approved for Class A, B and C fires (minimum rating of 2A, 10B, 10C).
- e. Telephone Service.
- f. Janitorial services not less than weekly.
- g. Emergency facilities (e.g. eyewash or showers) as required by OSHA.

Facilities shall be structurally sound and weathertight, with floors raised above ground.

### **1.3.1 Engineer/Department Office**

The Contractor shall supply and maintain a lockable field office, with a minimum floor space of 200 square feet, for exclusive use by the Department and the Engineer during the construction period. Contractor's use of the Department's or Engineer's facilities will not be allowed.

The Engineer/Department office shall consist of a trailer which has self-contained, built-in electric heating and air conditioning. Trailers shall be placed on concrete blocks and leveled, with adequate wooden steps and handrails provided at each exterior door. The interiors shall consist of wood paneling and fluorescent ceiling lights. The following shall be provided by the Contractor:

The field office shall contain at least two operable windows which are equipped with functioning blinds and security guard screens, and shall be supplied with the following equipment:

- a. Two office desks with lockable drawers, swivel chair and table (60 inches x 30 inches laminated top).
- b. Telephone with answering machine. The telephone shall have a minimum of 12 ft. of cord.
- c. Fax machine with a dedicated telephone line, built in telephone, and auto-receive features.
- d. Cable Internet service.
- e. Two (2) fire resistant, 2 drawer, lockable filing cabinets, legal size.

- f. Shelf set, two shelves 12 inches deep x three feet long (attachable to wall). Attachment will be performed by Contractor at the direction of Engineer.
- g. One (1) waste basket.
- h. One (1) paper towel dispenser with towels. The supply of towels to be replenished by the Contractor as required by the Engineer.
- i. One (1) bulletin board, measuring four (4) feet x six (6) feet.
- j. One office table with laminated top, three feet x eight feet.
- k. Six straight-backed chairs.
- l. One (1) operational water cooler with refrigerator. Supply of water to be replenished by the Contractor as required by the Engineer.
- m. One (1) paper cup dispenser with cups. The supply of cups to be replenished by the Contractor as required by the Engineer.
- n. One (1) first aid kit - to be replenished as needed.
- o. One (1) fire extinguisher, carbon dioxide (10 pound) - operational and certified.
- p. One (1) operational coffee pot with a capacity of ten (10) cup minimum.
- q. One (1) laptop computer with a minimum of:

<b>Base Unit:</b>	Latitude C840, 1.80GHz, Pentium 4, 15.0, UXGA, NIC/MDM, English (220-9490)
<b>Memory:</b>	512MB, Double Data Rate SDRAM, 1 Dimm for Dell Latitude C840/C640 Notebooks, Factory Install (311-1371)
<b>Video Memory:</b>	32MB, NV17, Double Data Rate, Nvidia, Video Card for Dell Latitude C840 Notebooks, Factory Install (320-0199)
<b>Hard Drive:</b>	20GB Hard Drive, 9.5MM for Dell Latitude C810/C840 Notebooks, Factory Install (340-6334)
<b>Operating System:</b>	Windows 2000, Service Pack 2, English for Dell Latitude C840 Notebooks, Factory Install (420-0749)
<b>CD-ROM or DVD-Rom Drive:</b>	Internal 24-20-24X CD Read Write for Dell Latitude C810/C840 Notebooks, Factory Install (313-1116)
<b>Option 2:</b>	Classic Nylon Carrying Case for Dell Latitude C810/C600/C500/C610/C510/C840/C640 Notebooks, Packaged with System (310-5271)

<b>Service:</b>	Type 3 Contract - Next Business Day Parts and Labor On-Site Response + CompleteCare, Initial Year (900-6670)
<b>Service:</b>	Type 3 Contract - Next Business Day Parts and Labor On-Site Response + CompleteCare, 2YR Extended (900-6672)
<b>Dirline:</b>	Promo, Gold Technical Support Service Latitude, 3 Years , (902-4919)
<b>Misc:</b>	Windows NT/2000, NTFS File System, Factory Install (420-0153)
	DellPlus, Integration Service, Windows 2000, Image Load, Latitude (365-2201)
	DellPlus Routing SKU, Factory Install (365-0257)

The Contractor shall be responsible for the cost of all project-related long distance and local calls made from the Department/Engineer's field office.

A sign shall be furnished on the outside of the Department's field office. The sign shall be 3'x4' x 3/4" thick marine plywood with white background and black letters. The sign shall read:

FIELD OFFICE  
NYS DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
TELEPHONE (include # when available)

All trailers and equipment supplied to the Engineer and the Department will remain the Contractor's property, unless specified otherwise.

The Engineer's/Department's office shall be located and installed in such a location as to provide free access for any individual wishing to communicate with the Engineer and/or the Department's representative. The public access to this trailer shall be provided directly from the public road and the entrance for the public shall be clearly posted.

### **1.3.2 Emergency Medical Facilities**

The Contractor shall provide for a separate area for providing an active Zone for emergency medical facilities.

### **1.3.3 Personnel Decontamination**

The Contractor shall provide for a separate area for personnel decontamination.

All equipment and fixtures shall be maintained in clean condition. No storage of any equipment will be allowed in the decontamination section of the Contractor's facility.

#### **1.4 METEOROLOGICAL STATION**

A. The Contractor shall provide and maintain a meteorological station in good working order throughout this contract. The meteorological station shall remain property of the Contractor for removal at the end of Part C Substantial Completion. Minimum parameters to be monitored by the system include indoor/outdoor temperature, barometric pressure, indoor/outdoor humidity, wind speed and direction, and rainfall.

#### **1.5 TRAFFIC CONTROL**

A. The Contractor shall comply with all rules and regulations of the City, County and State regarding closing or restricting the use of public streets or highways and shall obtain all necessary permits. The Work shall be conducted as to assure the least possible obstruction to traffic and normal commercial pursuits. All obstructions within public roadways shall be protected by installing approved signs, barricades, and lights where necessary for the safety of the public. The convenience of the general public and residents and the protection of persons and property shall be provided for in an adequate and satisfactory manner.

B. When flagmen and guards are required by regulation, or when deemed necessary by the Engineer or Contractor for safety, they shall be furnished with approved orange wearing apparel and other regulation traffic control devices required by the appropriate Department of Transportation (DOT) or local agency.

C. Parking areas shall be designated and regulated to insure free entry and egress to and from the site. The Contractor shall control vehicular traffic on the site and insure safe and efficient operations.

#### **1.6 STAGING AREAS**

A. The Contractor shall maintain a soil staging area until all soil staging activities have been completed. The staging area will be used to store the contaminated soil as outlined in Section 02230. The staging areas shall be located and maintained so as to provide safe access for site personnel and vehicles. The staging area shall be located in an area inaccessible to the general public. Areas allowed for soil staging are indicated on Contract Drawing No. 5 and shall be coordinated with the Engineer and bus company. No contaminated soil staging shall be allowed on the NYCDEP property.

B. The Contractor shall ensure that all contaminated materials within the staging areas are properly drummed or contained to prevent the escape of contaminant vapors. No contaminated material shall be placed directly on the ground surface. Precautions shall be taken to prevent the migration of contaminants from the staging area by wind or by precipitation. Precipitation and surface runoff shall be properly collected or diverted from the staging area as soon as practicable. The staging area shall be protected from flooding by the use of swales and ditches.

## **1.7 SNOW AND ICE REMOVAL**

A. The Contractor shall be responsible for management of snow and ice to maintain safe access for site personnel and vehicles for the duration of the Contract. The site is an active facility where snow and ice removal will be part of routine maintenance for the facility. However, the Contractor's responsible for all snow and ice removal necessary to perform his work.

END OF SECTION 01050







## **SECTION 01051 SURVEY**

### **1.1 DESCRIPTION**

- A. The Contractor shall provide all necessary survey information and control required to construct all elements and phases of the project as shown on the plans and as specified herein, and to document the completed construction.
- B. The work shall include, but shall not necessarily be limited to, stake-out for the fence and other structures as shown on the plans and as required, surveys to verify the slopes and elevation of SVE piping, surveys for the preparation of record drawings, and surveys of all well locations and elevations, consistent with current, generally-accepted construction surveying practice.
- C. All available survey information has been provided on the Contract Drawings. The Contractor shall establish any additional control points that he may require or that are deemed by the Engineer to be necessary.
- D. The stake-out survey shall proceed immediately following the Contractor's mobilization and shall expeditiously progress to completion in a satisfactory manner.
- E. Record Drawings: All survey and related notes shall be performed in observance of and to facilitate the preparation of project record drawings as described in Section 01010 - Subsection 1.14.

### **1.2 SUBMITTALS**

The Contractor shall submit the following information:

- A. Upon Engineer's request, certificates for inspection and calibration on survey instruments indicating certification that instruments are working to manufacturer's specifications.
- B. Description and recovery sketches of all permanent control survey monuments if different from or additional to those shown on the drawings.
- C. Data for all newly installed or modified wells or other subsurface structures, including: northing, easting, well depth, top of casing elevation, top of riser elevation, and ground elevation.
- D. Alignment, location and elevation of all below-grade permanent structures and utilities installed by the Contractor, such as pipe lines, wells, and cables, to prepare record drawings.
- E. Elevation and slope of all SVE pipelines.
- F. Data: All original surveyor field notes, records, and calculations used by the Contractor's surveyor shall be submitted no later than the date of acceptance of Work. The submittal shall include field notebooks. All data necessary to perform the work shall be submitted in a bound book, or other acceptable manner, organized chronologically and fully indexed. All computations performed to facilitate the surveying activities shall be provided in a 3-ring notebook, indexed chronologically.

## **SECTION 01600      OPERATION AND MAINTENANCE MANUAL**

### **1.1      GENERAL**

The Contractor shall develop and implement an Operation and Maintenance Plan to ensure proper operation of the remedial system and to assist in continued system operation following remedial system operation turn-over to the Department.

This section describes the minimum requirements for preparation of the Operation and Maintenance Plan, provides minimum Contractor performance requirements, system progress monitoring requirements, and water and air analytical sampling requirements.

The Department and the Engineer will review the Operation and Maintenance Plan for acceptability for the remedial system safe and efficient operation.

### **1.2      OPERATION AND MAINTENANCE PLAN**

The Operation and Maintenance (O&M) Plan is a deliverable product of this project.

A.      Submit three copies bound in 8-1/2 x 11 inch (216 x 279 mm) text pages, three D side ring capacity expansion binders with durable plastic covers.

B.      Prepare binder covers with printed title "OPERATION AND MAINTENANCE", title of project, and subject matter of binder when multiple binders are required.

C.      Contents: Prepare a Table of Contents for each volume, with each Product or system description identified, print on 24 pound white paper.

D.      Internally subdivide the binder contents with permanent page dividers, logically organized as described below; with tab titling clearly printed under reinforced laminated plastic tabs.

E.      Part 1:

Directory, listing names, addresses, and telephone number of Engineer, Contractor, Subcontractors, and major equipment suppliers. Also include in Part 1 the following:

1.      Purpose of the Treatment System.
2.      Operation and Managerial Responsibility.
3.      Discharge Permits and Operating Standards.
4.      Overall System Description
5.      Description of Individual Treatment Processes.
6.      Safety Inspections and Personal Protective Equipment.
7.      On-Site Safety Facilities.

8. Confined Space Safety.

F. Part 2:

Operation and maintenance instructions, arranged by system and subdivided by specification section. For each category, identify names, addresses, and telephone numbers of Subcontractors and suppliers. Identify the following:

1. Significant design criteria.
2. List of equipment.
3. Parts list for each component.
4. Standard Operating Procedures.
5. Manufacturer's Operation and Maintenance Manuals.
6. System Trouble Shooting.
7. Scheduled Preventative Maintenance.
8. Unscheduled Maintenance and Repairs.
9. Maintenance Record Keeping.
10. Spare Parts Records.
11. Recommended Lubricants and Spare Parts.
12. Required Tools.
13. Maintenance instructions for finishes, including recommended cleaning methods and materials and special precautions identifying detrimental agents.

G. Part 3:

Project documents and certificates, including the following:

1. Shop drawings and product data.
2. Air and water balance reports.
3. Certificates, i.e. material and equipment.
4. Photocopies of guarantees, warranties and bonds.
5. Record Drawings

## 2.01 Schedule

A. The Contractor shall submit the O&M Plan in stages based on the following:

1. An O&M plan outline shall be submitted to the Engineer and DEPARTMENT prior to 50% construction completion.
2. A draft O&M plan shall be submitted to the Engineer and DEPARTMENT prior to 90% construction completion.
3. A draft final O&M plan shall be submitted to the Engineer and DEPARTMENT within one week following the start-up period.
4. The final O&M plan shall be submitted to the Engineer and DEPARTMENT prior to turnover of the system to the Department and prior to Part D Substantial Completion.

B. The Engineer and the DEPARTMENT will review and comment on the each Contractor submittal. Agreed upon responses to all comments will be incorporated into the next version of the O&M plan.

**END OF SECTION 01600**



## **SECTION 01731 INSTRUCTION OF OPERATIONS AND MAINTENANCE PERSONNEL**

### **1.1 GENERAL**

- A. CONTRACTOR shall provide the services of factory trained maintenance specialists to instruct DEPARTMENT'S designated operations and maintenance personnel in the recommended operation and the preventive maintenance procedures for equipment specified in the equipment Sections.
- B. The qualifications of specialists shall be subject to approval by Engineer.
- C. CONTRACTOR shall coordinate these services at times acceptable to DEPARTMENT, with start-up and initial operations in a manner acceptable to DEPARTMENT and with the requirements of the specific equipment Sections.
- D. Manufacturer shall provide field training. All training shall be conducted at the site unless otherwise stated in the equipment Sections.
- E. Manufacturer shall allow any and all training sessions to be videotaped by DEPARTMENT.
- F. Instruction of DEPARTMENT'S personnel shall commence only after the equipment has been started and acceptance tests made.

### **1.2 TRAINING SCHEDULE**

- A. The Contractor shall provide a minimum of two days of training. Travel time and expenses are responsibility of the Contractor.

### **1.3 INSTRUCTION LESSON PLAN**

- A. Manufacturer's proposed Lesson Plan shall detail specific instruction topics. Training aids to be utilized in the instruction shall be referenced and attached where applicable to the proposed Lesson Plan. "Hands-On" demonstrations planned for the instruction shall be described in the Lesson Plan. Indicate the estimated duration of each segment of the Lesson Plan.

- B. Instruction Lesson Plan shall include the following as a minimum:

- 1. Equipment Operation:
  - a. Describe equipment's operating (process) function.
  - b. Describe equipment's fundamental operating principals and dynamics.
  - c. Identify equipment's mechanical, electrical and electronic components and features.
  - d. Identify all support equipment associated with the operation of subject equipment (e.g., air intake filters, valve actuators, motors).
  - e. Recommend standard operating procedures to cover start-up, routine monitoring and shut-down of the equipment.
- 2. Detailed Component Description:
  - a. Identify and describe in detail each component's function.
  - b. Where applicable, group related components into subsystems. Describe subsystem functions and their interaction with other subsystems.
  - c. Identify and describe in detail equipment safeties and control interlocks.



3. Equipment Preventive Maintenance (PM):
  - a. Describe PM inspection procedures required to:
    - 1) Perform an inspection of the equipment in operation.
    - 2) Spot potential trouble symptoms and anticipate breakdowns.
    - 3) Forecast maintenance requirements (predictive maintenance).
  - b. Define the recommended PM intervals for each component.
  - c. Provide lubricant and replacement part recommendations and limitations.
  - d. Describe appropriate cleaning practices and recommend intervals.
  - e. Identify and describe the use of special tools required for maintenance of the equipment.
  - f. Describe component removal/installation and disassembly/ assembly procedures.
  - g. Perform at least two "hand-on" demonstrations of preventive maintenance procedures.
  - h. Describe recommended measuring instruments and procedures, and provide instruction on interpreting alignment measurements, as appropriate.
  - i. Define recommended torquing, mounting, calibration and/or alignment procedures and settings, as appropriate.
  - j. Describe recommended procedures to check/test equipment following a corrective repair.
4. Equipment Troubleshooting:
  - a. Define recommended systematic troubleshooting procedures.
  - b. Provide component specific troubleshooting checklists.
  - c. Describe applicable equipment testing and diagnostic procedures to facilitate troubleshooting.

#### **1.4 TRAINING AIDS**

A. The manufacturer's instructor shall incorporate training aids as appropriate to assist in the instruction. As a minimum, the training aids shall include text and figure handouts. Other appropriate training aids are:

1. Audio-Visual Aids (e.g., films, slides, videotapes, overhead transparencies, posters, blueprints, diagrams, catalogue sheets).
2. Equipment cutaways and samples (e.g., spare parts and damaged equipment).
3. Tools (e.g., repair tools, customized tools, measuring and calibrating instruments).

B. The manufacturer's instructor shall utilize descriptive class handouts during the instruction. Photocopied class handouts shall be good quality reproductions. Class handouts should accompany the instruction with frequent reference made to them. Customized handouts developed especially for the instruction are encouraged. Handouts planned for the instruction shall be attached with the manufacturer's proposed Lesson Plan.

#### **1.5 "HANDS-ON" DEMONSTRATIONS**

A. The manufacturer's instructor shall present "hands-on" demonstrations of operations and maintenance of the equipment for each scheduled group. The proposed "hands-on" demonstrations should be described in the manufacturer's proposed Lesson Plan.

END OF SECTION 01731

## **SECTION 02220 EARTHWORK**

### **1.1 GENERAL**

A. This item shall include all earthwork associated with the site, including excavation, trenching, and backfilling. The Contractor shall provide the labor, equipment, and materials necessary to perform all of the work as outlined in this specification section. The Contractor is responsible for any and all permits necessary for the completion of this work.

B. The Contractor shall be responsible to determine the construction and existing condition of any basements or foundations of adjacent buildings that may be impacted by the work at the site, including but not limited to excavation and well installation activities. Any pre-existing conditions with the structures shall be noted by the Contractor to the Engineer prior to the beginning of any excavation work at the site. The Contractor shall make all arrangements determined to be necessary to protect the existing structures at the site and on adjacent properties.

C. The Contractor is responsible for the repair of any damage to offsite properties caused by actions of the Contractor or any subcontractors. This shall include, but not be limited to, landscaping, repairing, and reseeding damaged areas and replacing of pavement.

### **1.2 SITE GRADING**

A. The Contractor shall backfill, grade, and restore all disturbed areas of the site to pre-excavation elevations and conditions unless otherwise directed by the Engineer.

### **1.3 EXCAVATION AND TRENCHING**

A. Damage to the buildings, structures or roads from the Work shall be repaired at Contractor's expense.

B. The Contractor shall not allow soil to be tracked outside his immediate work area at any time during the Project. Visible soil tracks on streets or across the property will not be allowed and the Contractor will be responsible for clean up at the direction of the Engineer at the Contractor's expense. The Contractor shall take sufficient precautions to prevent loose soils from adhering to tire treads, wheel wells, etc.

C. The Contractor shall completely cover the soil and debris with polyethylene at the conclusion of the excavation or at the end of the day, whichever is sooner, to protect the excavated area from the weather. Polyethylene is to be anchored or weighted down as necessary to prevent loosening by wind. The Contractor shall be responsible for keeping excavations free of standing water. The Contractor shall maintain the integrity of the cover at all times and is responsible for immediate repair as necessary. The Contractor shall not move soil and debris when it is raining. The soil and debris shall remain covered during rain to minimize water accumulating in the soil. All soil staging areas must be approved by the NYSDEC and the Engineer prior to their placement.

D. The Contractor shall furnish a description of the earth moving and excavation equipment that is proposed for use in performing the work, and the proposed methods of excavation.

E. The Contractor shall submit the proposed method of dewatering if required. The Contractor shall ensure that no water is discharged from the site without treatment and without prior approval of the Engineer.

F. The Contractor shall identify all underground and overhead utilities and structures to be maintained. Location of the utilities and structures shall be verified by the agencies of concern prior to breaking ground. The locations of onsite utilities are not known. Additionally, there may be other buried objects in the path of excavation including railroad tracks. Information on these structures is included in the Limited Site Data document. The Contractor shall exercise due diligence and care in performing all work.

G. If the Contractor elects to use braced or sheeted excavation, the Contractor shall specify the proposed sheet pile material, thickness, and method of supporting the excavation. The drawings shall indicate all dimensions of walling and bracing, and tiebacks or anchors.

Calculations prepared by an Engineer licensed in the State of New York shall be submitted. Any sheet piling used in the excavations shall be removed upon completion of the work.

H. Special care shall be taken to avoid damage wherever excavation is being done. The width of such excavation shall not exceed the width actually necessary for the proper prosecution of the work as shown on the Contract Drawings and approved by the Engineer. All excavations shall be of such width for the proper and expeditious progress of the work and to permit the laying and readjusting of all sewers, mains, utilities, and other subsurface structures encountered along the route and contiguous to the project. In no case shall the Contractor be paid for any over-excavation beyond that shown on the Contract Drawings or without the prior approval of the Department/Engineer. The dimensions of excavations for payment shall be determined by measurement in the field by the Engineer.

I. Excavated slopes which are unstable or subject to slides shall be flattened, cutback or supported. The Contractor is solely responsible for compliance with all OSHA requirements. Contractor shall meet all applicable regulations as set forth in Title 29 Code of Federal Regulations, Part 1926, Safety and Health Regulations for Construction (OSHA). All Municipal, County, State and/or National Ordinances, regulations or laws shall be observed in connection with sheeting, shoring and bracing work. The requirements and minimum standards for sheeting are set forth in the Industrial Code - Rule No. 23 promulgated by the State of New York, Department of Labor and OSHA. Blasting will not be permitted as an excavation method.

J. The Contractor shall control vapors, odor and dust originating during excavation, stockpiling, staging activities, loading and other operations under this Contract. Methods may include plastic sheeting or foam suppression and must receive prior approval by the Engineer. All excavated material shall be handled in accordance with Section 02230.

K. Any water collected during excavation will be stored for future hauling to a NYSDEC permitted facility. The Contractor also has the option to treat the water on site using the ERH or other temporary treatment system, provided that it meets the requirements and is approved by the NYCDEP. All water shall be removed from the site quickly so as not to interfere with the site

operations. . The Contractor shall not discharge any construction-related water without the prior approval of the Engineer.

#### **1.4 BACKFILLING**

A. The Engineer must approve all areas for backfill. The Contractor shall utilize excavated soil as backfill to the extent practical. In general, soil that is excavated from one of the three Source Areas as designated on the Contract Drawings can be placed back into the same excavation, assuming that the material is free of debris and other material unacceptable to the Engineer, and meets moisture content requirements.

For excavation outside the Source Areas, the Contractor shall screen all excavated material with a photoionization detector. Material that is "clean" can be placed back into the same excavation, assuming the material is free of debris and other unacceptable material. Any soil that may be contaminated based on the photoionization detector readings (e.g. greater than 10 ppm) shall immediately be disposed offsite following the requirements of Section 02230. The Contractor also has the option to collect and analyze soil samples at his cost from the excavation areas prior to actual excavation. If these samples show that the soil meets the Soil Cleanup Objective Levels as presented in the Record of Decision (ROD) for this site, dated July 2000, the Contractor will be allowed to use the material as backfill. These cleanup levels are based on NYSDEC Technical and Administrative Guidance Memorandum (TAGM) 4046. These samples shall be collected at a minimum of once every 5 feet along excavation areas as directed by the Department/Engineer. These samples are in addition to any samples that may be required by the disposal facility.

B. If additional backfill is needed, clean backfill material obtained from offsite sources and as approved by the Engineer can be used. The Contractor shall provide the results of a full TCLP analysis, certify that the material is clean, and indicate the source of the material. Backfilling shall begin immediately upon Engineer's approval of the backfill material. Backfill material shall achieve a minimum 95% compaction and have a maximum particle size of two inches.

C. Following excavation of the contaminated soil and debris, the exposed subgrade shall be smoothly graded, and compacted to the approval of the Engineer. The fill shall be spread evenly above the approved subgrade in lifts not exceeding twelve (12) inches before compaction and shall be built up in horizontal layers as nearly even as practicable.

D. Each lift shall be compacted using suitable mechanical compactors. Lifts shall be compacted a minimum of six passes of the compactor. At the approval of the Engineer, the fill shall be compacted at a moisture content within 2 percent of optimum at the time of placement. Improperly compacted fill material shall be replaced at the Contractor's expense. Compaction or consolidation achieved by traveling trucks, machines, or other equipment is not acceptable.

E. The moisture density curve for the fill shall be supplied by the Contractor and shall be used as a guide in controlling moisture.

F. Backfill areas shall be free of debris, snow, and ice, and ground surfaces shall not be frozen during placement of backfill. Where required, the Contractor shall, at his own expense, add

sufficient water during the compaction effort to assure proper density. If, due to the rain or other causes, the material exceeds the optimum moisture content acceptable range for satisfactory compaction, it shall be allowed to dry, assisted by dicing or harrowing, if necessary, before compaction or filling effort is resumed. The Contractor shall be responsible for all delays and costs incurred by failure to keep the backfill dry.

G. The Contractor shall seal the working surface (i.e., open excavations) with a minimum 10 mil polyethylene liner at the close of each day's operation and when practical prior to rainfall. This shall be in addition to any plates and other precautions necessary for safety and/or to maintain traffic at the site.

H. The Contractor, as directed by the Engineer, shall minimize the time between excavation and backfilling. This is intended to minimize the area of open excavation, and the collection of water within the excavation. The Contractor shall expedite all trenching activities as quickly as possible to minimize any impacts to the site activities.

I. Clean fill material may be stockpiled on site in an uncontaminated area as shown on the Drawings or as approved by the Engineer. The fill shall be adequately covered to prevent runoff, in a manner satisfactory to the Engineer.

## **1.5 EROSION CONTROL**

A. The Contractor shall be responsible for the control of erosion and sedimentation at the remedial project site. The Contractor shall take the measures necessary to ensure that all runoff from the project site is sufficiently sediment free according to all applicable New York State and local guidelines. Measures shall also be taken to prevent ponding of rainwater in all areas of the project site. The Contractor shall comply with his approved Surface Water Management Plan as described in Section 01010-Subsection 1.8.

END OF SECTION 02220

## SECTION 02221 DRILLING AND PLACEMENT

### 1.1 GENERAL

A. Summary - The Contractor shall provide the labor, equipment, materials, tools, and supplies required to install the subsurface structures including ERH electrode/vapor recovery wells, ERH temperature monitoring points, SVE extraction wells, SVE vacuum monitoring points and groundwater monitoring wells. Subsurface structures shall be constructed to the dimensions, details, and depths shown on the Contract Drawings, and approved by the NYSDEC and the Engineer, to be necessary for effective operation. The Contractor shall comply with all applicable federal, state and local statutes regarding the installation of the subsurface structures. Additional restrictions in regard to the drilling and installation of wells are included on the Contract Drawings.

B. Applicable Publications - The publications listed below form a part of this specification to the extent referenced. The publications are referenced in the text by basic designations only.

American Society for Testing and Materials (ASTM) publications:

C136-83	Sieve Analysis of Fine or Coarse Aggregates
D2478-69	Classification of Soils for Engineering Purposes
D2488-69	Description of Soils (Visual-Manual Procedures)
C-478	Specifications for Precast Reinforced Concrete Vault Sections
D-698	Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort

C. Disposal of Cuttings - The Contractor shall be responsible for the collection, handling, *sampling* and disposal of all drill cuttings and soil excavated for concrete vaults generated during the installation of the wells. All cuttings shall be disposed in accordance with Section 02230. Payment for disposal associated with installation of all well structures and borings shall be included in the unit costs for the well/boring installation.

D. The Contractor shall be responsible for properly handling, storing, treating, *sampling* and discharging of any liquid wastes generated as a result of well installation and development activities in accordance with the Section 02230 of the Contract. All costs associated with the disposal of liquid wastes shall be included in the unit costs for the well/boring installation.

E. The Contractor shall also be responsible for all costs associated with the repair or replacement of existing monitoring wells that are damaged resulting from the Contractor's activities.

The Contractor shall provide a qualified geologist, as approved by the Engineer, to oversee all drilling and boring activities at the site.

### 1.2 SUBSURFACE CONSTRUCTION

A. The Contractor shall provide subsurface structures as detailed in the Contract Drawings. The structures shall be installed at locations shown on the Contract Drawings or as approved by the Engineer and the Department.

## B. Materials

1. Filter Material - Material for the sand filter pack around the screen shall be rounded to subrounded, washed sand composed of hard, tough, and durable particles free from adherent coatings. It shall contain no organic matter nor soft, friable, thin, or elongated particles in quantities determined deleterious. No more than five (5) percent by weight of calcareous material shall be permitted. The sand filter material shall conform with the well screen such that not more than 10% of the filter material will pass through the screen opening size. Well filter material will be approved by the Engineer.
2. Cement/Bentonite Grout - The cement/bentonite grout shall consist of a mixture of 2 to 5 pounds of pure bentonite powder per 94 pound base of Portland Cement Type I or II with 7 to 8 gallons of water.
3. Bentonite Seal: Material for the seal filter pack shall consist of pure grade bentonite pellets.
4. Material for ERH electrodes shall be as shown on the Contract Drawings or as approved by the Department/Engineer.

## C. Installation

1. Drilling and Sampling - Standard Penetration test split-spoon samples will be collected at every 5-foot interval by the Contractor's geologist in vadose zone soils and continuously when drilling through saturated (i.e. below water table) soils.
2. Construction Records - During drilling and construction, the record construction details shall be documented including the depth of each construction material such as bentonite pellet seal, sand pack, and final depth of hole using weighted tape method.
3. Temporary Casing - Any temporary casing shall have sufficient thickness to retain its shape and maintain a true section throughout its depth. The temporary casing shall be such as to permit its removal without damaging or interfering with the filter or permanent casing.
4. Permanent Casing - All casings will be grouted in place and allowed to cure for a 24 hours prior to completing the borehole. Casings shall be set plumb and shall not deviate from the vertical by more than one (1) percent of its full depth of casing.
5. Placement of Filter Pack Material - The annular space between the casing and the wells shall be filled with the filler material. The temporary casing shall then be removed incrementally while gradually filling the annular space with the sand pack in increments not to exceed 12 inches vertically. The removal of temporary casing and installation of the sand pack shall proceed in such a manner not to endanger the well. The sand pack will be sounded after well development to ensure that

significant settling has not occurred. If required, additional sand will be added so that the filter pack construction is consistent with the drawings.

6. Development of Monitoring Wells -Development of the monitoring wells shall be by surge blocking, over pumping , or other methods which are approved. Development shall continue until the water is visually free of sand and fines. Surging with air or pumping shall continue until discharge has a clear appearance acceptable to the Engineer. In no case shall the total amount of development water per well be less 3 times the well volume prior to the start of development. All development water shall be handled in accordance with Section 02230 of the Contract Documents. The Contractor also has the option to treat the water on site using the ERH or other temporary treatment system, provided that it meets the requirements and is approved by the NYCDEP. All water shall be removed from the site quickly so as not to interfere with the site operations.
7. Potable water must be used for grouting materials and drilling fluids. The water source shall be approved by the Engineer.

### **1.3 WELL BOXES**

- A. The Contractor shall supply and install 12-inch round well boxes at every TMP, vacuum monitoring point and groundwater monitoring well location. Each well box shall be equipped with a flush/traffic load rated manhole cover.
- B. Minimum concrete compressive strength shall be 4,000 psi at 28 days.
- C. All TMPs, vacuum monitoring points and groundwater monitoring wells shall be labeled and marked with permanent metallic plates or labels, using the well designations as indicated on the Contract Drawings. Painted well labels shall not be accepted.

### **1.4 PRECAST CONCRETE VAULTS**

- A. Description - The Contractor shall furnish all labor, materials, equipment, tools and accessories, required to complete the work of construction and installing precast reinforced concrete vaults with all accessories as shown, specified or required on the contract drawings for the SVE wells. The vaults shall be selected and sized to allow maintenance without any need for personnel to enter vault structures.
- B. Construction -
  1. Precast concrete vaults shall be fabricated as shown on the Drawings and in accordance with provisions of ASTM C-478. The Contractor may elect to cast the vaults in place. Should he elect to do so, he shall submit shop drawings showing the details of construction, to the Department for approval.
  2. Cement shall be ASTM C150 - Type II.



3. Compressive strength shall be minimum 5,000 psi at 28 days.
4. The vaults shall have lockable, watertight, aluminum covers and frames that are hinged and spring-assisted to be easily lifted and opened by one person. All hardware shall be stainless steel. Hinges shall be recessed below the elevation of the door suitable for snow plows.
5. Joints between segmented vault sections shall be sealed with gaskets and joint sealant in accordance with the manufacturer's directions.
6. Vaults shall be constructed and installed to prevent damage due to freezing of the subsurface soil.
7. Where piping or conduits penetrates the vaults, a water proof link type, mechanical annular seal shall be installed.
8. Stone material conforming to NYSDOT Standard Specifications Size Designation 3A, shall be used and compacted as a leveling course beneath the vault.

C. Installation

1. The Contractor shall install the vaults at the locations shown on the Contract Drawing and in accordance with the manufacturer's recommendation and with the approval of the Engineer.
2. The Contractor shall limit the extent of excavation. Non-contaminated soil generated from installing vault shall be temporarily stockpiled adjacent to the excavation and then used as backfill upon installation of vault. Where excess non-contaminated excavation materials are available, the Contractor shall use as borrow, where necessary.
3. Outdoor vaults shall be covered during the night with ½ inch thick carbon steel plates, the same dimensions as the vault or greater until the frame and lid are placed. The steel plates shall be placed in a manner suitable for site traffic.
4. Pipe/conduits and other connections to the vault shall be watertight and as shown on the Drawings.
5. A leveling course of stone shall be placed across the entire width of the bottom of the excavation, to a thickness of 6 inches. The leveling course shall be compacted with a minimum of 2 passes using plate or small drum vibrators, as approved by the Engineer. Compaction shall be carried out in accordance with NYSDOT Standard Specifications, Section 203-3.12, in layers not exceeding 6 inches in thickness.
6. Native backfill shall be placed in layers not exceeding 8 inches thickness and compacted in accordance with NYSDOT Standard Specifications, Section 203-3.15,

to 95 percent of Standard Proctor Maximum Density, as determined from results of tests performed in accordance with methods given in ASTM D-698.

7. Random fill too wet to be compacted shall be dried or replaced with suitable material.
8. All interior concrete surfaces shall be treated with a cement sealer.
9. All exterior concrete surfaces shall be damp-proofed.

## **1.5 BORINGS**

The Contractor shall install soil borings to determine the top of clay in areas of interest onsite. The Contractor shall install soil borings in accordance with the following:

1. Locations: The location of soil borings shall be as determined by the Engineer.
2. Number of Borings: The estimated number of borings is six (6).
3. Depth of Boring: Borings shall extend to a depth of approximately 75 feet bgs. The depth of borings may vary depending on field conditions.
4. Drilling and Sampling: Standard Penetration test split-spoon samples will be collected by the Contractor every 10 foot interval for the first 50 feet and continuously thereafter until the top of clay.
5. Boring Logs: Boring logs shall be prepared by the Contractor in accordance with the United Soil Classification System (USCS).
6. All boring locations shall be backfilled with grout, tremied from the bottom of the boring.
7. Drill cuttings shall be disposed of by the Contractor in accordance with specification Section 02230 - Contaminated Materials.
8. The Contractor shall patch and restore all pavement damaged by the installation of the borings. Pavement repair shall be in accordance with Section 02500 - Site Restoration of these Contract Documents.

END OF SECTION 02221



## 1.1 GENERAL

## 1.2 SCHEDULE FOR DECOMMISSIONING

- ### 1.3 METHODS

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**TABLE 02222-1**  
**DECOMMISSIONING SCHEDULE**

<b>Description</b>	<b>Quantity</b>	<b>Diameter</b>	<b>Depth bgs</b>
Monitoring Well MW-88D	1	2 inch	73.1 feet
Monitoring Well MW-88S	1	2 inch	20.3 feet
Monitoring Well MW-9D	1	2 inch	74.5 feet
Monitoring Well MW-9S	1	2 inch	18.5 feet
Chemical Oxidation Injection Sleeves	12	4 inch	8 feet

Note:

Well logs and additional information are included in the Limited Site Data document.

END OF SECTION 02222

## **SECTION 02230**

## **CONTAMINATED MATERIALS**

### **1.1 GENERAL**

A. The Contractor shall provide the labor, equipment, and materials necessary for handling, storage, treatment, and disposal as required for debris, soil, drill cuttings, personal protective equipment, asphalt, concrete, soil cuttings, and other disposables, decontamination water, and other residual waste generated by the work. The Contractor is responsible for any and all permits necessary for the completion of this work, including any requirements of the City of New York or Queens County. For off-site transportation, the Contractor shall comply with the regulations of those states through which the Contractor plans to transport the materials.

B. All equipment supplied shall be in good repair and good working condition. Equipment and machinery delivered to the site, including drill rigs and 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.

If off-site disposal is deemed necessary, the Contractor shall meet the requirements of Subsection 1.9 for transportation and disposal. Vehicles used to haul waste materials both on and off-site shall be designed, equipped, operated and maintained to prevent leakage, spillage or airborne emissions during transport. All vehicles leaving the Exclusion Zone shall be decontaminated in the Contamination Reduction Zone prior to leaving the site, and a decontamination certificate, signed by the Contractor's Health and Safety Officer or his designated representative, shall be provided to the Engineer stating that:

- a. No soil or other material is adhering to the vehicle body, tires or undercarriage.
- b. The vehicle is not leaking or dripping liquids.
- c. The contents of the vehicle are covered or completely enclosed so as not to permit potentially fugitive particulate matter to become airborne.

C. 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 site, the generator identification number NYD987031564 shall be used, and the Engineer shall sign manifests on behalf of the Department. However, the Contractor shall be responsible and will be held accountable for assuring that all sampling, analysis, transportation, and disposal requirements of the Treatment, Storage and Disposal Facility (TSDF) or Solid Waste Management Facility (SWMF), federal government and state governments are complied with and properly documented. All work shall be performed in compliance with applicable provisions of the OSHA, US Department of Transportation, the State of NY, and municipal and regulatory agencies regarding the handling, transport, and disposal of such waste.

D. Prior to shipment of hazardous wastes off the site, if applicable, the Contractor shall confirm by written communication from the designated TSDF or SWMF that it is authorized, has the capacity, and will provide or assure that the ultimate disposal method is followed for the particular 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 TSDF or SWMF.

E. The Contractor shall be responsible for all sampling and analyses as may be required by disposal facilities for disposal of debris and other material (including soil) under this Contract. All sampling will be conducted with the Engineer present.

## **1.2 DEBRIS**

A. Handling, relocation, and off site disposal of debris may be required to implement remedial measures at the site. The Contractor shall handle and relocate debris as required for performance of the work. Areas of debris removal and brush clearing may include the Contractor's work areas on the adjacent NYCDEP property as indicated on the Contract Drawings. Debris handling, relocation, and disposal will be paid under bid item LS-2 Site Preparation.

## **1.3 SOIL AND SEDIMENTS**

A. This item includes all excavation, stockpiling, staging, sampling, analyses, transportation, treatment, and disposal costs for soil and sediments. All soil shall be properly handled in accordance with Section 02220 - Earthwork and the Contractor's approved Materials Handling Plan

B. Whenever possible, excavated soil shall be put back into the excavation as outlined in Section 02220, 1.4. Any contaminated soil that can't be put back into the excavation shall be taken off-site.

C. Due to limitations on available space, and the number of residences located in the immediate vicinity of the work, the Contractor will not be allowed to stockpile or store contaminated soil at the site for any extended period of time. All contaminated soil, drill cuttings, etc. that is not being used as backfill shall immediately be placed into an appropriate rolloff container or drummed for off-site disposal. The Contractor shall make all arrangements necessary such that the storage of the soil for disposal does not impact the ongoing operation at the site. All soil can be stored on-site for a maximum of one week.

D. Ultimate disposal for hazardous soil will be to a permitted Treatment, Storage, and Disposal Facility. Final disposal will be subject to Resource Conservation and Recovery Act (RCRA), Toxic Substances Control Act (TSCA) and Federal/State regulations and specific requirements of the Treatment, Storage and Disposal Facility (TSDF). The Contractor shall be responsible to obtain the specific requirements which the TSDF will require for proper disposal into one of their Solid Waste Management Units and the cost shall be included in this item.

E. Sediments generated by decontamination activities or other construction activities shall be included in this item. These sediments shall be managed in accordance with the provisions of this section.

#### **1.4 DRILL CUTTINGS**

A. Drill cuttings generated by remedial activities shall be disposed of as outlined under Subsection 1.3.

B. The Contractor will be responsible for sampling, analyzing, handling, treating, and disposing of all drill cuttings. Costs for the disposal of drill cuttings shall be included in the unit costs for the installation of all structures and borings. All drums shall be disposed of in accordance with the Contractor's approved Materials Handling Plan.

#### **1.5 PERSONAL PROTECTIVE EQUIPMENT**

A. Reference Section 01030.

#### **1.6 CONTAMINATED WATER**

A. Contaminated water shall include but not be limited to: groundwater in excavations, decontamination water and well development water. Costs involving the containment, analysis, and disposal of water that collects within the excavation are the responsibility of the Contractor.

B. The Contractor shall haul the collected water directly to a NYSDEC permitted facility. The Contractor also has the option to treat the water on site using the ERH or other temporary treatment system, provided that it meets the requirements and is approved by the NYCDEP. All water shall be removed from the site quickly so as not to interfere with the site operations. The Contractor shall treat the contaminated water as required by the disposal facility.

#### **1.7 ACTIVATED CARBON**

A. The Contractor shall be responsible for the handling, storage, sampling, analysis, transportation and disposal/regeneration and all other costs associated with contaminated (spent) carbon generated by the electrical resistance heating system. The carbon shall be taken offsite and handled in accordance with all applicable regulations and in accordance with all requirements of the disposal/regeneration facility.

#### **1.8 RESIDUAL WASTE**

A. The Contractor shall be responsible for handling, storage, sampling, analysis, transportation and disposal of all residual waste generated by the construction or operation of the remediation system. Solids shall be disposed of in accordance with Subsection 1.3 and liquids in accordance with Subsection 1.6.

#### **1.9 TRANSPORTATION AND DISPOSAL**

##### **1.9.1 Description**

A. The Contractor shall properly transport and dispose of all items, including solid and liquid hazardous and nonhazardous wastes removed from the site, to appropriate disposal facilities. This



includes existing wastes as well as 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 the TSDF, SWMF, POTW, reclamation or salvage facilities, federal, state, and local governments are complied with and properly documented.

### **1.9.2 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:

- Trucks used for transportation of material for disposal off-site shall be permitted pursuant to 6 NYCRR Part 364;
- Vehicle operator possession of a commercial driver's license with hazardous materials endorsement (if applicable);
- Registration of vehicle as a hazardous waste carrier (if applicable);
- Utilization of shipping papers and/or hazardous waste manifest; (6NYCRR Part372).
- Proper marking and placarding of vehicles;
- 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); and
- Compliance with load height and weight regulations.

### **1.9.3 Materials And Equipment**

A. All equipment supplied shall be in good repair and good working condition. Equipment and machinery delivery 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.

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.

#### **1.9.4 Execution**

A. **DECONTAMINATION:** Transport vehicles shall be decontaminated at the Decontamination Station (see Section 01040) upon leaving the Exclusion Zone at the site and again at the disposal facility as required.

B. **MEASUREMENT:** The transport vehicle shall be weighed at the disposal facility on a certified scale to determine the amount of material being removed from the site. A printed ticket verified by the disposal facility with the time, date, and net weight of material being disposed shall be given directly to the Engineer.

C. **TRANSPORTATION:** 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.

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. 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 TSDF or SWMF.

D. **SAMPLING:** The Contractor shall be responsible for all sampling of wastes to be disposed of as may be required by the disposal facility.

E. **MANIFESTING:** 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 abandoned inactive hazardous waste site, the Department has obtained the EPA-required generator identification number (NYD 987031564) and 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.

END OF SECTION 02230



## **SECTION 02500 SITE RESTORATION**

### **1.1 GENERAL**

- A. The Contractor shall provide all required labor, equipment, materials, and supplies for site restoration.
- B. Any disturbance by the Contractor's operations to existing structures, pavement, utilities or other site features shall be repaired as specified herein or as approved by the Engineer.
- C. All waste pavement and concrete shall be disposed off-site by the Contractor at his expense.
- D. Related Sections:
  - 1. Section 02220 - Earthwork
  - 2. Section 02512 - Bituminous Paving
  - 3. Section 02513 - Crushed Stone and Gravel

### **1.2 PAVEMENT RESTORATION**

- A. Pavement removed, disturbed or damaged by or as a result of performance of the Contract shall be repaired and replaced by the Contractor by a new and identical pavement.
- B. The pavement shall be cut with a Carborundum saw to give a uniform straight edge.
- C. The cut edges shall be seal coated prior to restoration.
- D. Restoration shall include a subbase course, base course, top course, and tack coat. Materials shall be New York State Department of Transportation (NYSDOT) standard specification construction materials suitable for heavy truck and bus traffic, or as approved by the Engineer.
- E. Courses shall be laid in one (1") lifts and compacted with a minimum two (2) ton roller or other means as approved by the Engineer.
- F. The Contractor shall apply a minimum of one (1) coat of sealer over the top lift.
- G. Pavement restoration required during cold months, after the shutdown of asphalt plants, shall be temporarily repaired using cold patch asphalt. The Contractor shall remove the cold patch and complete restoration of the pavement in the spring, at no additional cost to the Department.

### **1.3 CONCRETE RESTORATION**

- A. Concrete removed, disturbed or damaged by or as a result of performance of the Contract shall be repaired and replaced by the Contractor by new and identical concrete.

- B. Restoration of existing concrete shall be performed by workmen experienced in this type of work. Application techniques shall be in strict accordance with the manufacturer's instructions. Restoration and resurfacing materials shall not be applied at temperatures below 45 degrees F, nor when the temperature is expected to fall below 45 degrees F within 48 hours.
- C. The Contractor shall define the areas of concrete removal prior to any work. The engineer shall approve the proposed cuts and concrete removal/restoration.
- D. The pavement shall be saw cut to give a uniform straight edge.
- E. Repair the concrete slabs in the following manner:
1. Drill 1-inch diameter holes in the center of the slab, nine inches deep, and 15 degrees from the horizontal, on 12-inch centers.
  2. Clean drilled hole and slab edges of debris.
  3. Epoxy grout 18-inch long #6 reinforcing steel bar into the holes.
  4. Apply epoxy bonding agent to edges of slab.
  5. Pour 4,000 psi strength concrete or as equal to the existing concrete slab.
  6. Finish/coat the surface of the concrete consistent with the existing concrete.

END OF SECTION 02500

## **SECTION 02512      BITUMINOUS PAVING**

### **1.1      GENERAL**

A.      CONTRACTOR shall provide all labor, materials, equipment and incidentals as shown, specified or required to furnish and install hot mix-hot laid bituminous paving. The Work includes the following:

1.      Coarse graded binder course.
2.      Fine graded top course.
3.      Pavement marking.
4.      Testing as specified.

B.      Related Sections:

1.      Section 02220 - Earthwork
2.      Section 02500 - Site Restoration
3.      Section 02513 - Crushed Stone and Gravel.

C.      Tests:

1.      The services of a qualified testing laboratory shall be engaged by CONTRACTOR to make tests and determine acceptability of the pavement materials. The laboratory shall be acceptable to ENGINEER.
2.      Required Tests:

- a.      Refer to New York State Department of Transportation (NYSDOT) requirements.

D.      Reference Standards: Comply with the applicable provisions and recommendations of the following, unless otherwise shown or specified.

1.      Standard Specifications for Road Work of the State of New York.
2.      Federal Specification (FS) TT-P-115, Paint, Traffic, Highway, White and Yellow.

E.      Shop Drawings: Submit for approval the following:

1.      Job mix formula proposed, giving complete data on materials, including source, location, percentages, temperatures, and all other pertinent data.

F.      Material Certificates:

1.      In lieu of laboratory reports required in the NYSDOT Standards, CONTRACTOR may submit certificates of compliance for the following:

- a. Coarse and fine aggregates from each material source and each required grading.
    - b. Asphalt or tar cement for each penetration grade.
    - c. Job-mix design mixtures for each material or grade.
    - d. Density of uncompacted bituminous concrete.
    - e. Density of compacted bituminous concrete.
    - f. Density and voids analysis for each series of bituminous concrete mixture test specimens.
    - g. Bituminous concrete plant inspection.
  - 2. Certificates that materials, mixtures and plant comply with Specification requirements.
  - 3. Certificates signed by CONTRACTOR.
- G. Weather Limitations: Use weather limitations in the NYSDOT Standards for the following:
- 1. Application of bituminous prime coats.
  - 2. Construction of base and surface courses.
- H. Grade Control: Establish and maintain the required lines and grades, including crown and cross-slope for each course during construction operations.

## **1.2 MATERIALS**

- A. Aggregate, mineral filler, bitumen, and prime coat shall be in accordance with the State Standards.
- B. Aggregate includes stone, gravel, slag and sand.
- C. Mineral filler includes limestone dust, portland cement or other inert material.
- D. Bitumen includes asphalt and tar cement.
- E. Prime coat includes asphalt cutback, tar or asphalt emulsion.

## **1.3 BITUMINOUS-AGGREGATE MIXTURES**

- A. Job-Mix Criteria for driveways, parking lots, and roadways:
  - 1. Provide job mix formulas as follows:
    - a. Top Course: NYSDOT Section 403-1 Type 7 Top

<u>Sieve Designation (Square Opening)</u>	<u>Percent Passing</u>
½ inch	100
1/4 inch	90-100
1/8 inch	45-70
No. 20	15-40
No. 40	8-27
No. 80	4-16
No. 200	2-6
Bitumen (percent)	6.0-8.0

b. Binder Course: NYSDOT Section 403-1 Type 3 Binder

<u>Sieve Designation (Square Opening)</u>	<u>Percent Passing</u>
1-1/2 inch	100
1 inch	95-100
½ inch	70-90
1/4 inch	48-74
1/8 inch	32-62
No. 20	15-39
No. 40	8-27
No. 80	4-16
No. 200	2-8
Bitumen (percent)	4.5-6.5

#### **1.4 TRAFFIC AND PARKING MARKING MATERIALS**

- A. Traffic lane marking paint with chlorinated rubber base.
- B. Factory mixed, quick drying and non bleeding, FS TT-P-115, Type III.
- C. Color: To match existing.

#### **1.5 INSPECTION**

- A. Examine the subgrade on which bituminous concrete will be installed. Notify ENGINEER in writing of conditions detrimental to the proper and timely completion of the Work. Do not proceed with the Work until unsatisfactory conditions have been corrected in a manner acceptable to ENGINEER.



## **1.6 PRIME COAT**

- A. Apply prime coat to subgrade in accordance with the requirements of the NYSDOT standards.

## **1.7 PAVEMENT INSTALLATION**

- A. Preparing the mixtures, paving equipment, placing the mixes, and compacting the mixes shall be in accordance with the NYSDOT Standards.
- B. Preparing the mixtures includes the plant equipment, stockpiling, heating, aggregate processing, mixing of aggregate and bituminous material, and transporting to job site.
- C. Paving equipment includes bituminous pavers, rolling equipment and hand tools.
- D. Placing the mixes includes paver placing, hand placing, spreading, tamping and jointing.
- E. Compacting the mixes includes breakdown rolling, second rolling and finish rolling.
- F. Pavement shall not be placed on any wet surface or where the surface temperature is below 40EF for the binder course or 60EF for the surface course.

## **1.8 PAVEMENT QUALITY REQUIREMENTS**

- A. General: In addition to other specified conditions, comply with the following minimum requirements:
  - 1. Provide final surfaces of uniform texture, conforming to required grades and cross sections.
- B. Density:
  - 1. If directed by ENGINEER, compare density of in-place material against laboratory specimen or certificates on same bituminous concrete mixture. Use nuclear devices.
  - 2. Minimum acceptable density of in-place course material will be 90 percent of the recorded laboratory specimen or certificate density. Maximum acceptable density will be 98 percent.
- C. Thickness: In-place compacted thicknesses shall average not less than the thicknesses specified.
- D. Surface Smoothness:

1. Test finished surface of each bituminous concrete course for smoothness, using a 10-foot straightedge applied parallel to and at right angles to centerline of paved areas.
2. Check surfaced areas at intervals directed by ENGINEER.
3. Surfaces will not be acceptable if exceeding the following:
  - a. Binder Course: 3/8 inch in 10 feet.
  - b. Surface Course: 1/4 inch in 10 feet.

## **1.9 PATCHING**

- A. As directed by ENGINEER, remove and replace all defective areas. Cut-out such areas and fill with fresh bituminous concrete. Compact to the required density.

## **1.10 CLEANING AND PROTECTION**

- A. Cleaning: After completion of paving operations, clean surfaces of excess or spilled bituminous materials and all foreign matter.
- B. Protect newly finished pavement until it has become properly hardened by cooling.
- C. Cover openings of drainage structures in the area of paving until permanent coverings are placed.

## **1.11 MARKING PAVEMENT**

- A. Cleaning:
  1. Sweep surface with power broom supplemented by hand brooms to remove loose material and dirt.
  2. Do not begin marking bituminous concrete pavement until approved by ENGINEER.
- B. Application:
  1. Using mechanical equipment, provide uniform straight edges in two separate coats. Apply in accordance with paint manufacturer's recommended rates.

END OF SECTION 02512



## SECTION 02513 CRUSHED STONE AND GRAVEL

### 1.1 - GENERAL

A. CONTRACTOR shall furnish and place crushed stone and gravel of the types specified at locations shown and as ordered by the ENGINEER.

B. Related Work Specified Elsewhere:

1. Section 02220, Earthwork
2. Section 02500, Site Restoration
3. Section 02512, Bituminous Paving.

C. Required Tests:

1. Select fill, sand, gravel samples gradation, ASTM D421, D422.
2. Select fill, sand, gravel samples moisture density relations ASTM D698, ASTM D1557.

### 1.2 MATERIALS

A. Pipe Bedding:

1. CONTRACTOR shall furnish and place crushed stone or crushed or screened gravel fill or sand under pipe as shown on or specified, or directed by the Engineer.
2. The material for piping shall be well-graded and clean, obtained from an approved source and conform to NYSDOTSS, Item 304-2.02, Type 1 subbase with the following gradation requirements:

Percent Passing	
<u>Sieve Size</u>	<u>Passing by Weight</u>
3 inch	100%
2 inch	90-100%
¾-inch	30-65%
No. 40	5-40%
No. 200	0-10%

B. Subbase Course for Pavement:

1. CONTRACTOR shall furnish and place sand and gravel or stone subbase for pavement as shown or specified.
2. The material shall be well graded from coarse to fine and free from organic or other deleterious material.
3. Roadway, access road, and pavement subbase material shall be obtained from an approved source and conform to NYSDOTSS, Item 304-2.02, Type 2 crushed stone with the following gradation requirements:

<u>Sieve Size</u>	<u>Percent Passing by Weight</u>
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2-inch	100%
¼-inch	25-60%
No. 40	5-40%
No. 200	0-10%

### **1.3 PLACING**

A. Gravel shall be spread in layers of uniform thickness not exceeding 8 inches and shall be thoroughly compacted with suitable power driven tampers or other power driven equipment.

END OF SECTION 02513

## **SECTION 11301 SOIL VAPOR EXTRACTION SYSTEM**

### **1.1 DESCRIPTION**

A. This section covers the work necessary to construct, start-up, test, operate and maintain the Soil Vapor Extraction (SVE) system as described herein.

B. The SVE system consists of several components. The Contractor shall be responsible for selecting and integrating all components to meet the requirements of the Contract Documents. Each component of the system has its own operating and construction requirements. It shall be the Contractor's responsibility to ensure that all of the system components are constructed and will operate in a manner compatible with each other, while each meeting their individual objectives.

C. All equipment and housing provided under this section shall be new and unused.

### **1.2 EQUIPMENT HOUSING AND STRUCTURAL SUPPORTS**

D. The Contractor shall provide housing and supports for all equipment of the SVE system and its components. All aboveground components (except the catalytic oxidizer) as shown on the Contract Drawings shall be housed in structures to provide protection of all equipment from weather, vandalism, and other factors. Housing shall be an enclosed trailer with wheels for transport or approved equivalent.

E. The system housing structures shall be equipped with heating and/or ventilation as required to maintain temperatures in the range of 50-100°F. Housing shall be equipped with lighting adequate for system O&M. The layout of the structures shall provide adequate space for movement and easy access to all equipment and control devices as required both for operation and maintenance. The housing must meet all State, Federal, and local regulations regarding safety of operation and proper environmental protection.

F. The system housing and supports must be designed to withstand all external loads and forces including snowload, wind, and frost, etc. All supports and anchors shall have an adequate factor of safety against overturning and sliding due to wind.

G. The Contractor shall install all utilities such as Electricity and Telephone in accordance with New York State applicable codes and in accordance with the requirements of the local utilities. The Contractor shall also follow the New York State Energy Conservation Construction code regarding heating, ventilation, thermal insulating, and lighting the system housing. All doors and windows shall be equipped with locking devices and weatherproofed. All services shall be brought to the system housing by buried conduit or pipe lines (except phone and electrical service) unless otherwise approved by the Department/Engineer.

### **1.3 PERFORMANCE OBJECTIVES**

A. The SVE system shall extract and treat soil gas containing VOC vapors

B. The SVE system shall process a minimum 750 SCFM of soil gas.

C. The SVE system shall produce a minimum vacuum of 40 inches water column at each extraction well head when all wells are connected to the system.

D. The Contractor shall modify the construction and/or operation of the SVE system as necessary to meet the performance objectives.

#### **1.4 PERFORMANCE STANDARDS**

A. Soil gas emitted from the system shall comply with the substantive NYSDEC air discharge requirements as identified in Section 01010, 1.15 of these Contract Documents before being discharged to the atmosphere.

B. Water (condensate) generated by the SVE system shall be disposed of in accordance with Section 02230. Costs for disposal shall be included in the unit cost for operation of the SVE system.

C. The Contractor shall modify the construction and/or operation of the SVE system as necessary to meet the performance standards.

#### **1.5 NOISE ABATEMENT**

A. Blowers shall be housed in soundproof enclosures and installed with intake and discharge silencers.

B. Sound from each blower shall not exceed 70 dBA at a distance of 3' - 0" from the blower housing.

C. SVE system operation shall comply with all local noise ordinances.

D. Sound levels shall be attenuated to levels that permit work without special hearing protection.

E. Vibration dampening supports shall be installed between the blowers and the supporting structures.

#### **1.6 MINIMUM REQUIREMENTS OF THE SVE SYSTEM**

##### **A. General**

1. It shall be the responsibility of the Contractor to select, furnish, install and test all components necessary to provide a complete, workable, and efficient SVE system that is capable of achieving the requirements specified herein. All components must meet the approval of the Engineer.
2. The minimum requirements for each of these components are described separately below. However, it shall be the Contractor's responsibility to select, operate, and control the components of the SVE system as one complete and compatible unit.

The Contractor shall include items and appurtenances not specified below, but required for a complete and operable system.

3. Unless specified below, the Contractor shall ensure that all components of the system are constructed of materials that are acceptable and chemically inert to the contaminants expected to be present in the soil gas at the concentrations detected as detailed in the Limited Site Data document.
4. All equipment shall be rated for hazardous locations (Class 1 Division 1 or Class 1 Division 2) in accordance with the New York City Electrical Code.

**B. Monitoring**

1. Ports shall be located at each wellhead, as shown on the Drawings and as required by the Engineer and shall be suitably constructed to easily and accurately perform the following functions:
  - Collect vapor samples
  - Connect to a portable pressure gauge
  - Connect to a portable flow gauge
  - Connect to a portable temperature gauge
2. Portable monitoring instruments or gauges to indicate pressure, flow, and temperature as described in 1.6B1 shall have a range adequate to indicate the expected range of pressures, flows, and temperatures at the monitoring location.

**C. Pipe and Valves**

1. Valves shall be located at each individual well head to allow the soil gas flow rate to be regulated or shut off at each extraction point.
2. All lines installed shall be constantly sloped to freely drain back towards the extraction wells. All line slopes shall be verified by survey. All pipe inverts shall be submitted to the Engineer as part of the As-Built drawings. There shall be no low points or locations in the network where condensate could stand and collect. All SVE system pipe after the blower discharge shall meet any temperature requirements specified by the blower manufacturer. Minimum pipe diameters are shown on the Contract Drawings. However, the Contractor shall ensure that the installed pipes are large enough to transmit the soil vapor without any significant pressure drop or restrictions to the system.
3. Installation of some pipe and SVE extraction wells will require the Contractor to cut through the walls and/or floor of the existing building. All such activities shall be coordinated with the existing site occupant. The Contractor shall be responsible to provide adequate dust control and use proper methods and equipment to complete a neat and clean installation with minimal impact to the site occupants.



D. Equipment

1. A moisture separator with an integral stainless steel demister, liquid level control switches, a liquid level site gauge, automatic vacuum relief, piping, and valves. The separator shall be constructed of epoxy lined steel, and have a minimum capacity of 55 gallons.
2. Three regenerative blowers installed in parallel, each sized for a minimum of 250 cfm and 50 inches of water vacuum. The blower shall be engineered for continuous long-life operation in an SVE application. The blower and motor shall be suitable for the design conditions. The blower shall be equipped with inlet filters, check valves, silencers, relief valves and other components as recommended by the manufacturer.
3. Provide all instrumentation required to monitor and to operate the equipment including indicators, transmitters, controls, alarms, and recorders as necessary.

E. Vapor Treatment

The minimum requirements for vapor treatment are specified in Section 11303 - Vapor Treatment.

F. Instrumentation

1. Level Switch
  - a. Service: Level control in moisture separator.
  - b. Description: Float type
  - c. Materials: Stainless steel body and polypropylene float.
  - d. Control Requirements: Shutdown blowers, activate local alarm, and activate autodialer to notify offsite operator(s) of alarm condition.
2. Portable Flow/Temperature Indicators
  - a. Service: Gas flow rate and temperature measurement at extraction wells, and after blowers.
  - b. Description: Portable digital thermo-anemometer with telescoping probe.
  - c. Range: Four field selectable ranges. Total range 0 - 15,000 feet per minute.
  - d. Manufacturer: Dwyer Model 471-2 or approved equivalent.
  - e. Quantity: A total of two units (one plus spare) shall be provided.

3. Pressure Indicators (Gauges)

- a. Service: Vacuum/pressure measurement at extraction wells and before and after blowers in SVE system.
- b. Description: Liquid-filled gauges.
- c. Dial Size: 2 ½-inch minimum.
- d. Range: Compatible with system location and function.
- e. Temperature: Gauges at extraction wells shall be suitable for outside temperature as low as -10°F.
- f. All gauges shall be installed with isolation valves between the gauge and the process piping.
- g. Manufacturer: Ametek series 500 gauges or approved equivalent.

4. Flow Switch

- a. Service: Indicator low/no flow in SVE system.
- b. Description: Vane operated flow switch.
- c. Range: Compatible with pipe and blower sizes.
- d. Manufacturer: Dwyer Series V4 or approved equivalent.

5. Autodialer

- a. Service: Notify operator(s) of high level alarm for moisture separator or low/no flow alarm in system.
- b. Standard Features: Minimum standard features shall include: 1) four (4) input channels; 2) alarm reporting to eight (8) preprogrammed phone numbers; 3) programmable via standard touch tone handset; 4) digitally recorded voice messages; 5) automatic alarm for external power failure; 6) surge protection; and 7) compatible with pager, cellular, and voice mail systems.
- c. Optional Features: Minimum optional features shall include: 1) battery backup during power failure, 2) NEMA 4 x enclosure; 3) 120 VAC to 6 volt DC transformer; and 4) cellular communication system.
- d. Manufacturer: RACO GUARD-IT or approved equivalent.

**G. Power and Controls:**

The minimum requirements for the power and control components of the SVE system are outlined below. Additional requirements are located in other sections of these contract documents. It shall be the Contractor's responsibility to select, operate, and control the components of the system as one complete and compatible unit.

1. The Contractor shall be responsible for furnishing and installing all electric service to the system.
2. The Contractor shall be responsible for furnishing and installing all conduit and wiring for all system equipment. This includes all power, control and instrumentation interconnections required for a fully operable system.
3. The Contractor shall be responsible for installing all motor starters, equipment, unit heaters, ventilating fans, skid mounted equipment, disconnects, power feeder wiring, lighting fixtures, instrumentation, controls, etc., associated with the system.
4. The system control panel shall contain all operator interface and local control devices, motor starters, circuit breakers, control power transformers, system disconnect switches, and alarm system components.
5. The control system shall include all additional alarms, controls, and interlocks as indicated on the Contract Drawings and as required for proper operation and monitoring.
6. Functional Requirements: The control system shall provide all functions required for complete automatic and manual operation of the system and provide the following functions:
  - a) System shutdown and alarm on high level in moisture separator.
  - b) Manual start/stop for blowers
  - c) System shutdown and alarm on low/no flow in system.
  - d) Automatic callout and notification in the event of an alarm.
7. All work outdoors and in wet locations shall be weatherproof. All material, equipment, and incidentals in hazardous locations shall meet NEC/NFPA/UL/NEMA/OSHA requirements for hazardous locations.

**1.7 ROUTINE MAINTENANCE**

**A.** Routine maintenance of the SVE system shall be performed as required by the Operation and Maintenance Plan.

**B.** Routine maintenance shall include checking: belt tensions, amperage loadings, valves, level controls, interlocks, and all monitoring equipment.

C. Contractor shall operate and maintain the system components in a safe and efficient manner in accordance with manufacturer's recommendations and all applicable standards of the appropriate trades or professions throughout the duration of operation.

D. All equipment installed shall be provided with the manufacturer's recommended maintenance and service by the Contractor and shall be maintained and operated by the Contractor throughout the duration of operation.

E. The Contractor shall be responsible to monitor and individually adjust the flow rates if necessary from all extraction wells at least on a weekly basis or as directed by the Department/Engineer. The entire system shall be continuously adjusted and balanced to maintain required flows and vacuum.

F. The Contractor shall be responsible to drain condensate from the moisture separator as required to ensure the continuous operation of the system. The Contractor shall also remove condensate and other buildup from the extraction piping as required to ensure the effective operation of the system. The Contractor shall dispose of all condensate off site in accordance with Section 02230 of these Contract Documents. All costs for sampling and disposal shall be included in the unit cost for SVE operation.

## **1.8 PHASES OF OPERATIONS**

A. Construction: The Contractor shall be responsible for selection, installation, and integration of the SVE system components.

B. Start-up and Performance Testing: The Contractor shall operate the SVE system at the required system parameters to meet performance objectives and standards and/or as determined by the Engineer. The system shall operate continuously 7 days per week, 24 hours per day. The Contractor shall conduct monitoring and analyses listed in Progress Monitoring (Section 11301, Subsection 1.9). The start-up and performance Testing Phase is anticipated to last for a minimum period of 1 month.

C. Routine Operation Phase: The Contractor shall operate the SVE system at the required system parameters as determined by the Engineer. The Contractor shall be responsible for operation and maintenance of the SVE system as specified by the Engineer for a six month period following completion as system start-up and performance testing. The Contractor shall adhere to the operation and maintenance procedures described in the O&M Manual developed for this site.

## **1.9 PROGRESS MONITORING**

A. Parameters to be monitored by the Contractor during the remediation process shall be as indicated in Table 11301-1 Progress Monitoring.

## **1.10 GROUNDWATER MONITORING**

A. The Contractor shall monitor groundwater elevations in site monitoring wells for the duration of time for which the Contractor is responsible for operating the SVE system, beginning

with a round of water elevation measurements just prior to initial startup of the SVE system. The groundwater elevations shall be measured to the nearest hundredth of a foot, and included with the system performance reports. Groundwater monitoring shall be in accordance with Table 11301-2. All well locations are shown on the Contract Drawings.

#### **1.11 REPORTS**

A. The Contractor shall furnish reports satisfactory to the Engineer covering operation of the SVE system during the duration of operation. Reports will clearly indicate operating conditions of the system and shall include the following parameters tabulated to show historical trends:

Flowrate (cfm) from each extraction well.

Total flow from all extraction wells (cfm).

Pressure (inches wc) at each well

VOC concentrations as each point sampled.

Mass of VOCs removed (lbs).

Groundwater table elevations for monitoring wells.

Groundwater contour map at a scale of 1 inch equals 60 feet.

Log of downtime and description of maintenance task or other corrective action taken.

All other data collected during the period.

B. Reports shall indicate project name, job number, Contractor's name, report number and data. Each report shall be signed by the Contractor's superintendent.

C. The Contractor shall furnish weekly reports to the Engineer during the start-up and performance testing phase.

D. The Contractor shall furnish monthly reports to the Engineer during the routine operations phase.

E. One copy of the reports shall be submitted to the Department, and two copies shall be submitted to the Engineer.

F. All reports shall be submitted within one week from the end of the reporting period. A pro-rated amount shall be deducted from the Contractor's payment for each calendar day that a complete report is submitted late.

END OF SECTION 11301

**TABLE 11301-1  
PROGRESS MONITORING**

Location	Matrix	Number of Samples/ Locations per event	Parameters	Frequency During Startup and performance Testing (1 month)	Laboratory Turnaround Time During Startup and Performance Testing	Frequency During Operation (6 months)	Laboratory Turnaround Time for Operation	Total Number of Analytical Samples
Extraction Wells	Air	15	TCL VOCs	Once every two weeks	2 days	Monthly	2 weeks	120
	Air	15	Flow rate	Daily	Field Measure	Weekly	Field Measure	
	Air	15	Pressure	Daily	Field Measure	Weekly	Field Measure	
	Air	15	Temperature	Daily	Field Measure	Weekly	Field Measure	
Blower Inlet	Air	3	Pressure	Daily	Field Measure	Weekly	Field Measure	-
Blower Outlet	Air	3	Flow rate	Daily	Field Measure	Weekly	Field Measure	-
	Air	3	Pressure	Daily	Field Measure	Weekly	Field Measure	
	Air	3	Temperature	Daily	Field Measure	Weekly	Field Measure	
Catalytic Oxidizer Inlet	Air	1	TCL VOCs	Once every two weeks	2 days	Monthly	2 weeks	8
	Air	1	Flow rate	Daily	Field Measure	Weekly	Field Measure	
	Air	1	Pressure	Daily	Field Measure	Weekly	Field Measure	
	Air	1	Temperature	Daily	Field Measure	Weekly	Field Measure	
	Air	1	Total VOCs (PID)	Daily	Field Measure	Weekly	Field Measure	
Catalytic Oxidizer Outlet	Air	1	TCL VOCs	Daily	2 days	Monthly	2 weeks	36
	Air	1	Total VOCs (PID)	Daily	Field Measure	Weekly	Field Measure	
	Air	1	Temperature	Daily	Field Measure	Weekly	Field Measure	
	Air	1	Hydrochloric Acid	Every 2 days	2 days	Weekly	2 weeks	

1. TCL VOCs shall be analyzed by method TO-15 and shall be in accordance with NYSDEC Analytical Services Protocol, latest edition and the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition, 1/97.
2. Frequencies are subject to change during operation. The Contractor shall be paid for additional authorized analyses and shall give credit for analyses not performed as directed by the Department.
3. All samples shall be shipped on the day of collection for overnight delivery to the laboratory.
4. The Contractor shall be responsible for supplying, canisters, packaging, handling as required.
5. Turnaround time is defined as the time for receipt of electronic or fax results of the analyses, from the date of sample receipt by the laboratory.

**TABLE 11301-2**

**GROUNDWATER TABLE ELEVATION MONITORING**

<b>Location</b>	<b>Matrix</b>	<b>Parameter</b>	<b>Measurement Frequency</b>
MW-1S	Water	Level	Monthly
MW-4S	Water	Level	Monthly
MW-7S	Water	Level	Monthly
MW-22S	Water	Level	Monthly
MW-66S	Water	Level	Monthly
MW-101S*	Water	Level	Monthly
MW-102S*	Water	Level	Monthly
MW-103S*	Water	Level	Monthly
MW-104S*	Water	Level	Monthly
MW-105S*	Water	Level	Monthly
MW-106S*	Water	Level	Monthly

\* - New wells to be installed as part of this contract.

1. All level measurements shall be with a Solinst or equal water level gauge.
2. All reports shall indicate where the water level depth is measured from, and provide the calculated actual water level elevation.
3. Monitoring shall begin prior to startup and operation of the SVE system.

## **SECTION 11302 ELECTRICAL RESISTANCE HEATING**

### **1.1 DESCRIPTION**

A. This section covers the work necessary to construct, start-up, test, operate and maintain the Electrical Resistance Heating (ERH) system as described herein.

B. The ERH system consists of several components. The Contractor shall be responsible for selecting and integrating all components to meet the requirements of the Contract Documents. Each component of the system has its own operating and construction requirements. It shall be the Contractor's responsibility to ensure that all of the system components are constructed and will operate in a manner compatible with each other, while each meeting their individual objectives.

### **1.2 ENCLOSURES, SUPPORTS, AND BARRIERS**

A The Contractor shall provide enclosures, supports, and barriers for all ERH system components as necessary. All aboveground components shall be protected from weather, vandalism, and other factors.

B. The Contractor shall provide lighting adequate for system O&M on a 24 hour per day basis. The layout of the structures shall provide adequate space for movement and easy access to all equipment and control devices as required both for operation and maintenance. Any enclosures must meet all State, Federal, and local regulations regarding safety of operation and proper environmental protection.

C. The system enclosures and supports must be designed to withstand all external loads and forces including snowload, wind, and frost, etc. All supports and anchors shall have an adequate factor of safety against overturning and sliding due to wind.

D. The Contractor shall install all utilities such as Electricity and Telephone in accordance with New York State applicable codes and in accordance with the requirements of the local utilities. The Contractor shall also follow the New York State Energy Conservation Construction code regarding heating, ventilation, thermal insulating, and lighting.

E. The ERH system shall be fenced as shown on the Contract Drawings and as described in Section 01040. The fence shall include safety signage in accordance with the Contractor's ERH Health and Safety Plan.

### **1.3 PERFORMANCE OBJECTIVES**

A. The ERH system shall mobilize into the vapor phase and subsequently remove subsurface contaminants to the largest extent practicable.

B. Following the two startup phases described in 1.8B and 1.8C, the ERH system shall achieve minimum temperatures based on the depth below the surface as presented in Table 11302-1.



C. The Contractor shall evaluate compliance with objective 1.3B by collecting temperature measurements on a daily basis at nine (9) locations at eight depths for a total of seventy-two measurement points per day. For each of the 72 temperature points, the temperature measurement will be compared to the corresponding depth-specific temperature presented in Table 11302-1. For each thermocouple, or other approved temperature measurement device, the Contractor shall calculate and report, the percentage of the temperature goal met, using the Celsius temperature scale. If the thermocouple reads higher than the target temperature, the Contractor shall assign a maximum percentage of 100%. Compliance with objective 1.3 B shall be met if the average of the 72 calculated percentages is above 95%. The Contractor shall not be in compliance with performance objective 1.3B if the temperature at any measurement point is below 80% of the minimum required temperature (performance objective on Table 11302-1).

D. Performance objectives in 1.3B and 1.3C are based on a water table depth of 12 feet below ground surface (bgs). These objectives may be modified by the Engineer if the water table is greater than 1 foot above or below 12 feet bgs prior to start-up. The water table shall be confirmed by measuring the water level in MW-101S one week prior to start-up.

E. Temperature measurements shall be performed at the same time each day. These measurements will be used to compute the average temperature. These temperatures shall be used as a basis for Contractor payment as described in Section XII.

F. Following the two start up phases described in Section 1.8B and 1.8C, the Contractor shall maintain a minimum average daily power input to the treatment zone of 19,200 KWhr.

G. Any water introduced by the Contractor to the subsurface shall be coupled with a system to simultaneously remove an equivalent volume of water either as a liquid pumped from the aquifer, or as vapor above and beyond a minimum of 2 gpm condensate to be generated by the minimum power input specified in 1.3F.

H. The Contractor shall modify the construction and/or operation of the ERH system as necessary to meet the performance objectives.

#### **1.4 PERFORMANCE STANDARDS**

A. Emissions from the ERH system (catalytic oxidizer unit) shall comply with the substantive NYSDEC air discharge requirements as outlined in Section 01010.

B. Water discharged to the sewer system shall comply with the requirements of New York City Department of Environmental Protection Division of Sewer Regulation and Control as outlined in Section 01010.

C. The Contractor shall modify the construction and/or operation of the ERH system to meet the performance standards.

## **1.5 NOISE ABATEMENT**

- A. Blowers shall be housed in soundproof enclosures and installed with intake and discharge silencers.
- B. Sound from each component shall not exceed 70 dBA at a distance of 3' - 0" from the component.
- C. ERH system operation shall comply with all local noise ordinances.
- D. Sound levels shall be attenuated to levels that permit work without special hearing protection.

## **1.6 MINIMUM REQUIREMENTS FOR THE ERH SYSTEM**

### **A. General**

- 1. It shall be the responsibility of the Contractor to select, furnish, install and test all components necessary to provide a complete, workable, and efficient ERH system that is capable of achieving the requirements specified herein.
- 2. The minimum requirements for each of these components are described separately below. However, it shall be the Contractor's responsibility to select, operate, and control the components of the ERH system as one complete and compatible unit. The Contractor shall include items and appurtenances not specified below, but required for a complete and operable system.
- 3. The Contractor shall provide written demonstration in accordance with Section III Article 5 (Required Bid Submittals) and Article 10 (Experience and Financial Statements) that the Contractor (or its specific ERH system subcontractor and/or its personnel) meet the following minimum experience requirements:
  - a. Minimum three years individual experience in applying ERH as a principal remedial technique at the full or field-pilot scale.
  - b. Application of ERH technology at the full or field-pilot scale at a minimum of five sites, with two of the sites using ERH to primarily treat contamination in the saturated zone.
- 4. Unless specified below, the Contractor shall ensure that all components of the system are constructed of materials that are acceptable and chemically inert to the contaminants expected to be present in the soil gas at the concentrations detected as detailed in the Limited Site Data document.
- 5. All equipment shall be rated for hazardous locations (Class 1 Division 1 or Class 1 Division 2) in accordance with the New York City Electrical Code.

## B. Equipment

1. Power control unit(s) (PCU) capable of supplying sufficient power to meet all performance requirements described in paragraph 1.3. The PCU(s) shall be powered by two separate 500 KVA electrical services as required by Section 16010. The PCU(s) shall be controlled by the Contractor from a nearby (local) computer and a remote computer. The PCU(s) shall be equipped with components for automatic shut off and emergency stop to prevent potential exposure to hazardous voltages. The PCU(s) shall include a method to allow remote restart after a power failure. Electrical metering shall provide revenue-quality measurements of energy (KW-hours) and demand (average and peak KW) on the input. The PCU(s) shall accurately measure the rate of energy delivery from the PCU(s) to the electrodes. Surge protection shall be provided on all input lines. Electrical equipment shall be protected from weather following NEMA construction methods. The PCU(s) and/or ancillary equipment shall incorporate a temperature monitoring system for continuously monitoring and recording temperatures of at least 120 temperature measurement devices (e.g. thermocouples).
2. A condenser rated for a minimum heat duty of 5 million BTU per hour. Condenser shall be plate and frame type heat exchanger or approved equivalent. Materials shall be resistant to chlorinated solvents.
3. A skid mounted cooling tower complete with blower, make-up tank, and pump.
4. Two vacuum blowers installed in parallel, each sized for a minimum 460 scfm and an inlet vacuum up to 14.5 inches of mercury. The blower shall be equipped with inlet filters, check valve, silencers, relief valves and other components as recommended by the manufacturer.
5. Two (2) moisture separators (inlet and outlet) with demisters, level control switches, site gauges, automatic vacuum relief valves, and other appurtenances as required. Contractor shall provide secondary containment equal to a minimum 110% of the volume of the tank.
6. A water (condensate) holding tank with a minimum capacity of 1,000 gallons. The Contractor shall provide secondary containment equal to a minimum 110% of the volume of the tank.
7. Two carbon adsorption units installed in series. Each unit shall be designed to treat a minimum 10 gpm of contaminated water and shall contain a minimum 125 pounds of activated carbon.

## C. Pipe and Valves

1. Pipe connecting ERH wells to the ERH system and pipe connecting system components shall be constructed of CPVC in accordance with Section 15050.

2. Pipe size shall be selected by the Contractor and approved by the Engineer. Minimum pipe size shall be 1 ½ inch nominal diameter.
3. Pipe routing shall be determined by the Contractor and approved by the Engineer.
4. Valves shall be installed at the locations shown on the Drawings at a minimum and as required for efficient operation as approved by the Engineer.
5. All pipe and valves shall be installed above grade.

D. Power, Controls, and Instrumentation

The minimum requirements for power, controls and instrumentation are provided below. Additional requirements are included in other Sections and on the Drawings. It shall be the Contractor's responsibility to select, furnish, and install all the components required for a complete and operable system although the components may not be specified or shown. Power, control, and instrumentation components shall be compatible with each other and other components of the ERH system.

1. The Contractor shall furnish and install electric service for the system.
2. The Contractor shall furnish and install all conduit and wiring for the system including all power, control and wiring interconnections.
3. The Contractor shall furnish all instrumentation required to monitor and operate the equipment including indicators, transmitters, controls, alarms, recorders.
4. The Contractor shall furnish and install all required motor starters, disconnects, circuit breakers, transformers, and associated equipment.
5. All outdoor installation shall be weather-proof and all installations in hazardous locations shall meet all NEC, NFPA, UL, NEMA, and OSHA requirements.
6. Minimum functional requirements for the control system shall be as follows:
  - a. Power Control Unit(s): Control by a locally installed computer and a remote computer. Automatic shut-off and alarms to prevent exposure to high voltages and both local and remote emergency stop capability.
  - b. Electrodes: Remote and locally controlled adjustable voltage input to electrodes. The electrodes shall be of similar construction and electrical properties throughout the length of each electrode segment.
  - c. Temperature Monitoring Points: Continuous local and remote monitoring of all thermocouples.

- d. Inlet/Outlet Separators: Level control interlocked to pump operation. High level alarm and switch to automatically shutdown system.
- e. Cooling Tower: The recycle loop shall include a thermostat or other means of shutting down the cooling tower fan if the water temperature is too low.
- f. Condenser: Temperature and pressure measurement for vapor inlet and outlet. Temperature and pressure measurement for cooling water inlet and outlet.
- g. Water Holding Tank: Level control linked to pump operation. High level alarm and switch to automatically shutdown system.
- h. Condensate Flow: Continuous monitoring of flow rate and flow total.
- i. Vapor Flow: Monitoring of flow rate and flow total for vapor leaving the outlet separator.

#### E. Vapor Treatment

The minimum requirements for vapor treatment are specified in Section 11303 - Vapor Treatment.

#### F. Monitoring

Ports shall be located as shown on the Drawings and as required by the Engineer.

#### G. ERH Health and Safety

1. The Contractor shall be responsible to prepare an addendum or attachment to the Health and Safety (see Section 01030) plan specific to the startup and operation of the ERH system. The Contractor shall ensure that procedures and methods are developed to ensure the safety of both the Contractor's personnel and other persons inside of the fenced area, as well as the safety of the persons working at the existing operations at the site. Special consideration shall be given to the operations and conditions inside the building, immediately adjacent to the ERH area.
2. At a minimum, the ERH Health and Safety plan addendum shall address the following:
  - a. Restrictions during initial startup of the system.
  - b. Grounding of potential hazards.
  - c. Monitoring of pavement surface temperatures.
  - d. Monitoring of the building indoor atmosphere.
  - e. Signage and warnings (e.g., High Voltage).
  - f. Procedures for a "step and touch" survey to demonstrate no exposure to stray voltages greater than 15V RMS.

## **1.7 ROUTINE MAINTENANCE**

- A. Routine maintenance of the ERH system shall be performed as required by the Operation and Maintenance Plan.
- B. Routine maintenance shall include checking: belt tensions, amperage loadings, valves, level controls, interlocks, and all monitoring equipment.
- C. Contractor shall operate and maintain the system components in a safe and efficient manner in accordance with manufacturer's recommendations and all applicable standards of the appropriate trades or professions throughout the duration of operation.
- D. All equipment installed shall be provided with the manufacturer's recommended maintenance and service by the Contractor and shall be maintained and operated by the Contractor throughout the duration of operation.

## **1.8 PHASES OF OPERATIONS**

- A. Construction: The Contractor shall be responsible for selection, installation, and integration of the ERH system components.
- B. First Phase Startup and Performance Testing: Each electrode comprises two segments, an upper and lower segment as shown on the Contract Drawings. During First Phase Startup, the Contractor shall energize only the lower electrode segment. Before proceeding to Second Phase Startup, the Contractor shall meet the First-Phase Startup Minimum Temperature Requirements indicated on Table 11302-2
- C. Second-Phase Start-up and Performance Testing: The Contractor shall operate the ERH system as required until the Contractor demonstrates compliance with Paragraph 1.3 of Section 11302. The system shall operate continuously 7 days per week, 24 hours per day. The Contractor shall conduct monitoring and analyses specified in Performance Monitoring (Section 11302, Paragraph 1.9). The Start-up and Performance Testing Phase is anticipated to last for up to 9 weeks.
- D. Steady-State Operation Phase One: The Contractor shall operate the ERH system as required to meet the requirements of Paragraph 1.3 of the Section. The duration of this phase will be as directed by the Engineer, but is expected to last for 3 months or longer. The Contractor shall be responsible for operation and maintenance of the ERH system during the entire duration of the operation phase. The Contractor shall adhere to the operation and maintenance procedures described in the O&M Manual developed for this site.
- E. Standby Phase: The Standby Phase will commence with shutdown of the ERH system at the completion of Steady-State Operation Phase I. The Contractor shall continue to monitor and report the temperature measurements to the Engineer. Soil sampling (Paragraph 1.9D) shall be performed by the Contractor as directed by the Engineer. The duration of this phase shall be as directed by the Engineer, for a maximum of 30 days.

F. Restart Phase: This phase shall occur only if directed by the Engineer. The Engineer shall evaluate the soil sampling results. If the Engineer decides that further remediation is necessary, the Engineer shall direct the Contractor to restart the system. Operation during this phase shall be in accordance with Articles 1.8B and 1.8C of this section. The restart phase is anticipated to last up to nine weeks.

G. Steady-State Operation Phase Two: This phase shall occur after the restart phase and shall occur only as directed by the Department. Operation during this phase shall be in accordance with Paragraph 1.8D, and is expected to last for eight weeks or longer.

H. Decommissioning: The Contractor shall remove all ERH equipment and abovegrade components from the site, including security fence within 4 weeks after completion of Part B Substantial Completion. The Contractor shall decontaminate equipment and materials as required for reuse and/or disposal. All materials shall be disposed of in accordance with applicable regulations. Some materials may require sampling prior to acceptance at a disposal facility.

## **1.9 PERFORMANCE MONITORING**

A. Temperature: The Contractor shall monitor temperature to evaluate compliance with performance objective 1.3B. The Contractor shall monitor temperatures at temperature monitoring points during the remediation process as indicated on Table 11302-1. All temperature measurement devices shall be calibrated in accordance with ASTM Method E220 prior to installation.

B. Process: The Contractor shall analyze samples in accordance with the QA/QC Plan and measure physical parameters in process streams to evaluate contaminant removal and compliance with performance standards. Process monitoring shall be as indicated on Table 11302-3.

C. Groundwater: The Contractor shall analyze groundwater samples in accordance with the QA/QC Plan from monitoring wells in accordance with Table 11302-4 to evaluate the impact of ERH remediation or groundwater quality. During sample collection, groundwater shall be pumped out of each well through a heat exchanger coil submerged in an ice bath to reduce its temperature prior to placement in the sample container. Procedures for sample collection shall be submitted by the Contractor as part of the sampling plan identified in Section 01010, Article 1.11.2.

D. Post-Remediation Soil Samples: : The Contractor shall analyze subsurface soil samples in accordance with the QA/QC plan to evaluate remediation effectiveness. The Contractor shall collect and analyze samples at the direction of the Engineer and in accordance with the following.

1. Locations: The location of soil borings will be as determined by the Engineer. All soil samples will be collected from within the fenced ERH area as shown on the Contract Drawings.
2. Number of Borings: The estimated number of borings is ten (10). Additional borings may be installed as directed by the Engineer.
3. Depth of Borings: Borings shall extend to 45 feet bgs.

4. Number of Samples: The estimated number of samples is twenty-five ( 25). Additional samples may be collected as directed by the Engineer.
5. Analysis: Samples shall be analyzed for TCL VOCs by method OLM04.2 in accordance with NYSDEC's ASP, latest revision. Laboratory turnaround time shall be two calendar days from sample collection for all samples.
6. Method: Geoprobe techniques shall be used to collect the soil samples. Techniques shall be employed to minimize the loss of volatile organics from these "hot" samples. Sample tubes shall be immediately capped and placed in ice water. When cooled the sample tube shall be cut open and the sample removed.

#### **1.10 Site-Wide Monitoring**

In addition to the performance related monitoring, the Contractor shall also perform monitoring of the overall groundwater conditions at the site. The Contractor shall collect TCL VOC samples from all monitoring wells as indicated on Table 11302-5. These samples shall be collected once every quarter, including one round of samples prior to the startup of the ERH system, and one round of samples prior to the startup of the SVE system. For bid purposes, the Contractor shall assume a total of six quarterly sampling events. The Contractor shall be responsible for all sample bottles, sampling equipment, shipping, and purge water handling and disposal.

#### **1.11 REPORTS**

A. The Contractor shall furnish reports satisfactory to the Engineer covering operation of the ERH system during the duration of operation. Reports will clearly indicate operating conditions of the system and shall include the following parameters tabulated to show historical trends:

Flowrate (scfm) of extracted vapors.

Total flow (scf per week) of extracted vapors.

Flow rate (gpm) of treated water discharged to the sewer on a daily basis.

Total flow (gallons per week) of treated water discharged to sewer.

VOC concentrations at each point sampled.

Rate of VOC mass removal (lbs per day)

Total VOC mass removed (lbs per week)

Temperature at each monitoring point on a daily basis.

Average temperature of all monitoring points on a daily basis.



Rate of power delivery to ERH electrodes (kilowatt-hours per day)

All other data collected during the period.

B. Reports shall indicate project name, job number, Contractor's name, report number and data. Each report shall be signed by the Contractor's superintendent.

C. The Contractor shall furnish weekly reports to the Engineer during all phases of remediation.

D. A groundwater monitoring report (Table 11302-4) shall be issued as a separate report on a monthly basis.

E. A soil sample report shall be issued as a separate report paragraph (paragraph 1.9D). The report shall be submitted to the Department no later than 1-week after soil sampling is completed. The report shall include the following:

A boring location map

Boring logs

Analytical results

F. All reports shall be submitted within one week from the end of the reporting period. A pro-rated amount shall be deducted from the Contractor's payment for each calendar day that a report is submitted late.

**TABLE 11302-1**

**ERH SYSTEM TEMPERATURE MONITORING**

<b>Location</b>	<b>Depth bgs</b>	<b>Performance Objective (Minimum Required Temperature)</b>	<b>Measurement Frequency</b>
TMP-1 through TMP-9	10	NA	Daily
TMP-1 through TMP-9	15	90°C	Daily
TMP-1 through TMP-9	20	94°C	Daily
TMP-1 through TMP-9	25	97°C	Daily
TMP-1 through TMP-9	30	100°C	Daily
TMP-1 through TMP-9	35	103°C	Daily
TMP-1 through TMP-9	40	105°C	Daily
TMP-1 through TMP-9	45	120°C	Daily
TMP-1 through TMP-9	50	122.5°C	Daily
TMP-10 through TMP-13	all depths	NA	Daily

NA - Not Applicable. Temperature will be measured, but will not be used as a basis for performance evaluation or payment.

This table is based on a water level 12' below ground surface. A similar table will be developed by the Engineer if the depth varies significantly from 12' below ground surface at the time that ERH commences.

**TABLE 11302-2**

**FIRST PHASE STARTUP TEMPERATURE REQUIREMENTS**

**(These temperature requirements apply only to the First Phase Startup Operation)**

<b>Location</b>	<b>Depth (ft.)</b>	<b>Performance Objective (Minimum required Temperature)</b>	<b>Measurement Frequency</b>
TMP1 through TMP-9	45	108°C	Daily
TMP1 through TMP-9	50	110°C	Daily

TABLE 11302-3

## ERH SYSTEM PROCESS MONITORING

Description	Location (see Contract Drawing No. 8)	Matrix	Parameter	Measuremen t Frequency Start up	Laboratory Turnaround Startup	Measurement Frequency Operation	Laboratory Turnaround Operation	Total Number of Analytical Samples
Vapor (post condenser)	AP-1	Gas	TCL VOCs	Every 2 days	2 days	Weekly	1 week	85
	AP-1	Gas	Total VOCs (PID)	Daily	NA	Daily	NA	NA
	AP-1	Gas	Flow rate	Daily	NA	Daily	NA	NA
	AP-1	Gas	Temperature	Daily	NA	Daily	NA	NA
	AP-1	Gas	Pressure	Daily	NA	Daily	NA	NA
Condensate	AP-2	Water	TCL VOCs	Every 2 days	2 days	Weekly	1 week	85
	AP-2	Water	Total Flow	Daily	NA	Daily	NA	NA
Discharge	AP-3	Water	TCL VOCs	Weekly	1 week	Weekly	2 weeks	39
Catalytic Oxidizer Outlet	AP-4	Gas	TCL VOCs	Every 2 days	2 days	Every 2 weeks	2 weeks	75
	AP-4	Gas	Hydrochloric Acid	Every 2 days	2 days	Weekly	1 week	85
	AP-4	Gas	Total VOCs (PID)	Daily	NA	Daily	NA	NA
	AP-4	Gas	Flow rate	Weekly	NA	Daily	NA	NA
	AP-4	Gas	Temperature	Weekly	NA	Daily	NA	NA
	AP-4	Gas	Pressure	Weekly	NA	Daily	NA	NA

## Notes:

1. Frequencies are subject to change during operation. The Contractor shall be paid for additional authorized analyses and shall be given credit for analyses not performed as directed by the Department.
2. Discharge samples are in addition to any discharge sampling that may be required by the NYCDEP. These requirements are identified in Section 01010.
3. The sample frequency and requirements will apply to any system restart and steady-state operation phase two, if required. Total quantities of samples include restart samples and phase two operation.
4. Turnaround time is defined as the time for receipt of electronic or fax results of the analyses, from the date of sample receipt by the laboratory.
5. All samples shall be analyzed using the methods and requirements outlined in Section 01010, 1.11.2.5.b.
6. The Contractor has the option of using an on-site GC for analysis, provided that a minimum of 10% of the samples are verified with laboratory confirmation samples. All costs will still be on a unit price basis. The Contractor shall bear the cost for the laboratory confirmation samples.
7. PID = total volatiles concentration as measured by a photoionization detector.

TABLE 111302-4

## ERH SYSTEM GROUNDWATER MONITORING

Location	Parameter	Measurement Frequency Startup	Laboratory Turnaround Startup	Measurement Frequency Operation	Laboratory Turnaround Operation	Total Number of Samples
MW-101S*	TCL VOCs	Twice <sup>1</sup>	2 weeks	Monthly	2 weeks	9
MW-101I*	TCL VOCs	Twice <sup>1</sup>	2 weeks	Monthly	2 weeks	9
MW-102S*	TCL VOCs	Twice	2 weeks	Monthly	2 weeks	9
MW-102I*	TCL VOCs	Twice <sup>1</sup>	2 weeks	Monthly	2 weeks	9
MW-103S*	TCL VOCs	Twice <sup>1</sup>	2 weeks	Monthly	2 weeks	9
MW-103I*	TCL VOCs	Twice <sup>1</sup>	2 weeks	Monthly	2 weeks	9
MW-104S*	TCL VOCs	Twice <sup>1</sup>	2 weeks	Monthly	2 weeks	9
MW-104I*	TCL VOCs	Twice <sup>1</sup>	2 weeks	Monthly	2 weeks	9
MW-7S	TCL VOCs	Twice <sup>1</sup>	2 weeks	Monthly	2 weeks	9
MW-7D	TCL VOCs	Twice <sup>1</sup>	2 weeks	Monthly	2 weeks	9

\*Wells to be installed by the Contractor as part of this Contract

## Notes:

1. Samples shall be collected 2 days before initiating start-up and 2 days after completion of start-up.
2. The sample frequency and requirements will apply to any system restart and steady-state operation phase two, if required.
3. Turnaround time is defined as the time for receipt of electronic or fax results of the analyses, from the date of sample receipt by the laboratory.
4. Total number of samples includes quantities for restart samples.

TABLE 111302-5

## SUMMARY OF SITE-WIDE MONITORING

Monitoring Well	Monthly VOC Analysis During ERH Activities <sup>4</sup>	Quarterly TCL VOC Analysis <sup>2</sup>	Total Number of Samples
MW-22S		X	6
MW-4S		X	6
MW-55D		X	6
MW-66S		X	6
MW-7S	X	X <sup>1</sup>	2
MW-77D	X	X <sup>1</sup>	2
MW-101S <sup>3</sup>	X	X <sup>1</sup>	2
MW-101I <sup>3</sup>	X	X <sup>1</sup>	2
MW-102S <sup>3</sup>	X		
MW-102I <sup>3</sup>	X		
MW-103S <sup>3</sup>	X		
MW-103I <sup>3</sup>	X		
MW-104S <sup>3</sup>	X		
MW-104I <sup>3</sup>	X		
MW-105D <sup>3</sup>		X	6
MW-106D <sup>3</sup>		X	6

## Notes:

1. Samples will not be collected during quarters that the monthly ERH samples are being collected.
2. One of the quarterly measurements should directly precede the startup of the ERH system, and one should directly precede the startup of the SVE system.
3. Wells that are being installed as part of the remedial contract
4. See Table 11302-4
5. Laboratory turnaround time shall be two weeks for receipt of electronic or fax results.
6. Total only includes samples not included on Table 11302-4

END OF SECTION 11302



## **SECTION 11303 VAPOR TREATMENT**

### **1.1 DESCRIPTION**

- A. The Contractor shall provide emissions treatment and control for the Soil Vapor Extraction (SVE) and Electrical Resistance Heating (ERH) systems. The cost for vapor treatment shall be included in the costs for operation of the SVE and ERH systems respectively.
- B. ERH and SVE system operation will be sequential. ERH operation will be completed before initiating start-up of the SVE system. The Contractor, at his discretion, may use the same unit or different units to meet the requirements of this section.
- C. This section covers the work necessary to install, start-up, operate and maintain the vapor treatment system described herein.
- D. The Contractor shall be responsible for selecting the vapor treatment unit(s) to meet the requirements of the Contract Documents. The vapor treatment unit(s) shall be compatible with other components of the systems.
- E. Any catalytic oxidation unit provided by the Contractor shall remain the property of the Contractor for removal at the end of Part D Substantial Completion.

### **1.2 PERFORMANCE OBJECTIVES**

- F. The minimum vapor treatment capacity shall be as follows:
  - 1. ERH: 500 SCFM
  - 2. SVE: 750 SCFM
- B. Minimum VOC destruction efficiency shall be 99%.
- C. The Contractor shall modify the installation and/or operation of the vapor treatment system as necessary to meet the performance objectives.

### **1.3 PERFORMANCE STANDARDS**

- A. Emissions from the vapor treatment system shall comply with the substantive NYSDEC air discharge requirements before being discharged to the atmosphere.
- B. The Contractor shall modify the installation and/or operation of the vapor treatment system as necessary to meet the performance objectives. If the Engineer determines that emissions are not acceptable, the Contractor shall:
  - 1. Demonstrate that the catalytic oxidation unit is operating within the specified parameters.
  - 2. Reduce VOC emissions by reducing the VOC loading to the unit.



#### **1.4 NOISE ABATEMENT**

- A. Sound from each blower shall not exceed 70dBA at a distance of 3'-0" from the blower housing.
- B. System operation shall comply with all local noise ordinances.
- C. Sound levels shall be attenuated to levels that permit work without hearing protection.

#### **1.5 MINIMUM REQUIREMENTS**

- A. The Contractor shall provide a complete fully integrated unit(s). The Contractor shall include items and appurtenances not specified below, but required for a complete and operable system.
- B. The materials of construction shall be chemically inert to the contaminants expected to be present in the soil gas and vapors at the concentrations detected as detailed in the Limited Site Data document.
- C. The system housing shall be weatherproof.
- D. The system shall shut down safely and automatically if any of the following occur: 1.) electrical power loss to the control panel; 2.) loss of proper inflow; 3.) high/low temperature 4.) high/low gas pressure; 5.) flame out of the burner; 6.) system operation above 25% LEL; and 7.) high level in moisture separator.
- E. All equipment shall be rated for hazardous locations (Class 1 Division 1 or Class 1 Division 2) in accordance with the New York City Electrical Code.
- F. The discharge stack height shall be a minimum of 25 feet to comply with NYSDEC air discharge requirements. The stack shall be sufficiently anchored to withstand the wind loading for the area.

#### **1.6 ROUTINE MAINTENANCE**

- A. Routine maintenance for the unit(s) shall be performed as required by the Operation and Maintenance Plan.
- B. The Contractor shall operate and maintain the system components in a safe and efficient manner in accordance with the manufacturer's recommendations and all applicable standards of the appropriate trades or professions throughout the duration of operation.
- C. All equipment installed shall be provided with the manufacturer's recommended maintenance and service by the Contractor and shall be maintained by the Contractor throughout the duration of operation.

## **1.7 PHASES OF OPERATION**

The phases of operation shall be in accordance with Section 11301 - Soil Vapor Extraction System and Section 11302 - Electrical Resistance Heating.

## **1.8 PERFORMANCE MONITORING**

A. Performance monitoring shall be in accordance with Section 11301 - Soil Vapor Extraction System and Section 11302 - Electrical Resistance Heating.

## **1.9 REPORTS**

Reports shall be in accordance with Section 11301 - Soil Vapor Extraction System and Section 11302 - Electrical Resistance Heating.

END OF SECTION 11303



## **SECTION 11304 SUBSURFACE DEPRESSURIZATION**

### **1.1 GENERAL**

- A. The Contractor shall provide all required labor, equipment, materials, and supplies for a soil depressurization system in a location as shown on the Contract Drawings.
- B. This work shall be completed before start-up of the SVE system is initiated.

### **1.2 DESCRIPTION**

- A. The Contractor shall install a minimum two suction points through the concrete floor in the basement of the onsite building at locations determined by the Engineer.
- B. The Contractor shall install piping runs to carry soil gas from the suction points. Piping shall be connected to a stand-alone depressurization blower, separate from the SVE system.
- C. The discharge pipe from the depressurization blower shall extend to a minimum of 3 feet above the roofline at the building.
- D. The system piping shall be installed in a manner that will allow the future connection to an SVE header piping located on the outside wall of the building near the subsurface depressurization areas.

### **1.3 METHODS**

- A. Installation of the subsurface depressurization system shall be in accordance with USEPA's Radon Reduction Techniques for Existing Detached Houses - Technical Guidance for Active Soil Depressurization Systems, latest revision, and as shown on the Contract Drawings.
- B. Installation of piping shall be in accordance with Section 15050 - Pipe Fittings, Valves, and Other Accessories.
- C. Installation shall be in accordance with the Contractors Work Plan as approved by the Engineer.

### **1.4 TESTING**

- A. Upon completion of installation, the Contractor shall operate the system for one hour.
- B. After the one hour of operation the Contractor shall drill a small (less than 0.5 inch diameter) pilot hole at a location approved by the Engineer.
- C. The Contractor shall test for positive air flow from the basement through the hole to the subsurface using fine dispersed particulate "smoke", such as stannous chloride powder.

D. If no positive flow towards the hole is observed, the Engineer may require the Contractor to install up to two more suction points and connect them to the extraction system.

E. The Contractor shall conduct up to two air sampling events as directed by the Engineer. For each event, the Contractor shall collect a total of three 8-hour composite samples from various locations in the building. All samples shall be analyzed for TCL VOCs using EPA Method TO-15. The Contractor shall be responsible to ensure that the canisters are safely placed within the building, and shall replace and resample any canisters that are lost or stolen.

END OF SECTION 11304

## **SECTION 15050      PIPE, FITTINGS, VALVES AND OTHER ACCESSORIES**

### **1.1      DESCRIPTION**

A.      The Contractor shall furnish all labor, materials, equipment, tools and appurtenances required to complete the work including furnishing, installing, connecting, backfilling, testing and placing all piping, complete with all fittings, valves, appurtenances and accessories, as shown, specified or required.

### **1.2      REFERENCE STANDARDS**

The Contractor shall complete all work, including materials of construction, procedures and testing, required in this Contract Document for piping, fittings, valves, and other accessories in accordance with all applicable sections of the following reference standards:

American Society for Testing and Materials (ASTM) for PVC and CPVC Pipes  
American National Standards Institute (ANSI) for Piping

### **1.3      QUALITY ASSURANCE**

A.      Source Quality Control: Regardless of tolerance permitted by reference standards, the Engineer may reject pipe which is chipped, cracked, blistered in coating and lining, rough interior or exterior surfaces, evidence of structural weakness, porosity, joint defects, significant variations from theoretical shape, and imperfections which might contribute, in the opinion of the Department, to an accelerated deterioration, reduced functional capability, or reduced structural strength.

B.      All valves shall be products of well established firms who are fully experienced, reputable and qualified in the manufacture of the particular equipment to be furnished. The equipment shall be designed and constructed in accordance with the best practices and methods and shall comply with these Specifications as are applicable.

### **1.4      PIPES AND FITTINGS**

#### **A.      Polyvinyl Chloride (PVC)**

1.      Service: Soil gas transport in soil vapor extraction (SVE) system.
2.      Pipe: Type 1, Grade 1, Cell Class 12454B, Schedule 80 conforming to ASTM D 1784 and ASTM D 1785.
3.      Fittings: Schedule 80 socket type conforming to ASTM D2467.
4.      Solvent: Solvent cement conforming to ASTM D 2564 installed in accordance with ASTM F402 and ASTM D2855.
5.      Size: Size shall be as shown on drawing as a minimum, or as required to ensure efficient operation of the system.

**B. Chlorinated Polyvinyl Chloride (CPVC)**

1. Service: Vapor transport in electrical resistance heating (ERH) system.
2. Pipe: Type 4, Grade 1, Cell Class 23447B, Schedule 40 conforming to ASTM 1784.
3. Fittings: Schedule 40 socket type conforming to ASTM F438.
4. Solvent: Solvent cement conforming to ASTM F493 installed in accordance with ASTM F402.
5. Flanges: ANSI 150 lb., CPVC, slip socket flange or approved equal.
6. Gaskets: ANSI B16.1, 150 lb., full face, nitrile.
7. Bolting: 316L stud bolt, 316L for nuts and washers, Class 150 application.
8. Size: Size shall be as shown on drawings as a minimum or as required to ensure efficient operation of the system.

C. All pipe and fittings for utilities such as water, gas, and sewer, as well as any other pipe, shall be in accordance with the requirements and recommendations of the local utility.

D. All pipe shall be handled and assembled in accordance with the manufacturer's instructions, and applicable ASTM methods except as modified on the Drawings or in writing by the Department.

E. Delivery and Storage: Inspect materials delivered to site for damage. Store materials on-site in enclosures or under protective coverings. Store PVC piping, rubber gaskets and fittings under cover, out of direct sunlight. Do not store materials directly on the ground. Keep inside of pipes and fittings free of dirt and debris.

**1.5 VALVES**

**A. Polyvinyl Chloride (PVC)**

1. Ball Valves: All sizes - PVC, true union type, with EPDM seals/Teflon seats, and socket ends or approved equivalent.
2. Check Valves:
3. Butterfly Valves: All sizes - PVC, with EPDM seals and seats, flanged ends, and lever operator, or approved equivalent.
4. Gate Valves: All sizes PVC, with Styrene Butadiene Rubber plug and flanged ends, or approved equivalent.

**B. Chlorinated Polyvinyl Chloride (CPVC)**

1. Ball Valves: All sizes - CPVC, with EPDM seals, Teflon seats and socket ends or approved equivalent.
  2. Check Valves: All sizes - CPVC with EPDM seals and seats, and socket ends or approved equivalent.
- C. All valves shall have the name of the manufacturer, flow directional arrows, and the working pressure identified on the valve.
- D. All valves shall open counter-clockwise unless otherwise specified.
- E. All valves that are not located within the secured areas shall be lockable to prevent tampering with the valve position. The valve shall be able to be locked in any position between fully open and closed.

## **1.6 INSTALLATION**

- A. Pipe shall be installed at locations shown on the Drawings and in accordance with manufacturer's instructions.
- B. Joints, tees, elbows, etc. shall be installed as required and shall be in accordance with the manufacturer's instructions.
- C. All pipes shall be solvent welded (PVC) unless otherwise required for installation of valves and connections to equipment. PVC unions shall be installed at reasonable intervals along the run of the pipe, to permit disassembly.
- D. Provisions shall be made for expansion in all pipes. An expansion coupling shall be installed at the entrance to each structure. Expansion couplings shall be submitted by the Contractor to the Engineer for approval.
- E. Where flanged connections are used, flanges shall be designed to conform to ANSI B16.1 Flange bolt pattern. Full face, elastomeric gaskets, with a durometer rating of 55 to 80, are required. All flanged connections shall be made with stainless steel bolts. Flange shall be installed in accordance with manufacturer's recommendations.
- F. Unless otherwise shown or specified, the Contractor shall furnish and install suitable pipe sleeves at all points where pipes pass through walls or floors of structures. The space between the pipe and the sleeve shall be caulked with suitable elastomeric caulking compound or a mechanical sealing ("Link-Seal") system. Sleeve material shall be the same or similar to that of the pipe line. All pipe layout and building penetration locations must be approved by the Department and/or Engineer prior to Construction.
- G. Piping shall be installed with approved hangers and supports to prevent sagging, warping, or vibration of piping system.





## **SECTION 15190      MECHANICAL IDENTIFICATION**

### **1.1      GENERAL**

- A.      This item includes all labor, equipment, and material associated with identifying components of the remedial systems, including, but not limited to: plastic tape pipe markers, plastic tags, valve schedule frames, stencils, engraved plastic laminate signs, and plasticized tags.
- B.      **QUALITY ASSURANCE - ANSI/ASME A13.1 - Scheme for the Identification of Piping Systems.**

### **1.2      MATERIALS**

- A.      Color: Unless specified otherwise, conform with ANSI/ASME A13.1.
- B.      Plastic Tape Pipe Markers: Flexible, vinyl film or vinyl-based fabric tape with pressure sensitive adhesive backing and printed markings, minimum information indicating flow direction arrow and fluid being conveyed. Seton roll form pipe markers or equal.
- C.      Plastic Tags: Laminated three-layer plastic with engraved black letters on light contrasting background color. Tag size minimum 1-1/2 inch diameter. Include piping system abbreviation in approximately 3/16" high letters and sequence valve numbers approximately 3/8" high. Match color to piping system where possible.
- D.      Valve Schedule Frame: Provide for each page of schedule a glazed display frame with screw mounting. Provide frame of finished hardwood or extruded aluminum, with plastic glazing.
- E.      Stencils: Standard metal stencils, prepared for required applications with letter sizes generally complying with recommendations of ANSI A13.1 for piping and similar applications, but not less than 1-1/4" high letters for ductwork and equipment, and not less than 3/4" high letters for access door signs and similar operational instructions.
- F.      Stencil Paint: Standard exterior type stenciling enamel; black, except as otherwise indicated; either brushing grade or pressurized spray-can form and grade.
- G.      Engraved Plastic-Laminate Signs: Provide engraving stock melamine plastic laminate, complying with FS L-P-387, in the sizes and thicknesses required, engraved with engraver's standard letter style of the sizes and wording indicated, black with white core (letter color) except as otherwise indicated, punched for mechanical fastening except where adhesive mounting is necessary because of substrate.
  - 1.      Thickness: 1/16", except as otherwise indicated.
  - 2.      Fasteners: Self-tapping stainless steel screws, except contact-type permanent adhesive where screws cannot or should not penetrate the substrate.
- H.      Plasticized Tags: Manufacturer's standard pre-printed or partially pre-printed accident-prevention tags, of plasticized card stock with matt finish suitable for writing, approximately 3-1/4" x 5-5/8", with brass grommets and wire fasteners, and with appropriate pre-printed wording including large-

size primary wording (as examples; DANGER, CAUTION, DO NOT OPERATE). Tags to conform with OSHA requirements.

### **1.3 DESIGNATIONS**

A. General: Coordinate names, abbreviations and other designations used in mechanical identification work, with corresponding designations shown, specified or scheduled. Provide numbers, lettering and wording as indicated or, if not otherwise indicated, as recommended by manufacturers or as required for proper identification and operation/maintenance of mechanical systems and equipment.

B. Multiple Systems: Where multiple systems of same generic name are shown and specified, provide identification which indicates individual system number as well as service (as examples; Boiler No. 3, Air Supply No. 1H, Standpipe F12).

### **1.4 PREPARATION**

A. Degrease and clean surfaces to receive adhesive for identification materials.

B. Coordination: Where identification is to be applied to surfaces which require insulation, painting or other covering or finish, including valve tags in finished mechanical spaces, install identification after completion of covering and painting. Install identification prior to installation of acoustical ceilings and similar removable concealment.

### **1.5 PIPING SYSTEM IDENTIFICATION**

A. General: Install plastic pipe markers on each piping system and include arrows to show normal direction of flow.

B. Locate pipe markers and color bands as follows wherever piping is exposed to view in occupied spaces, machine rooms, accessible maintenance spaces (shafts, tunnels, plenums) and exterior non-concealed locations.

1. Near each valve and control device.
2. Near each branch, excluding short take-offs for fixtures and terminal units, mark each pipe at branch, where there could be question of flow pattern.
3. Near locations where pipes pass through walls or floors/ceilings, or enter non-accessible enclosures.
4. At access doors, manholes and similar access points which permit view of concealed piping.
5. Near major equipment items and other points of origination and termination.
6. Spaced intermediately at maximum spacing of 50' along each piping run, except reduce spacing to 20' in congested areas of piping and equipment.

7. On piping above removable acoustical ceilings, except omit intermediately spaced markers.

## **1.6 VALVE IDENTIFICATION**

A. General: Provide valve tag on every valve, cock and control device in each piping system; exclude check valves, valves within factory-fabricated equipment units, plumbing fixture faucets, convenience and lawn-watering hose bibs, and shut-off valves at plumbing fixtures, HVAC terminal devices and similar rough-in connections of end-use fixtures and units. List each tagged valve in valve schedule for each piping system.

B. Tagging Schedule: Comply with requirements of "Valve Tagging Schedule" at end of this section.

C. Mount valve schedule frames and schedules in machine rooms where indicated or, if not otherwise indicated, where directed by the Engineer.

1. Where more than one major machine room is shown for project, install mounted valve schedule in each major machine room, and repeat only main valves which are to be operated in conjunction with operations of more than single machine room.

## **1.7 MECHANICAL EQUIPMENT IDENTIFICATION**

A. General: Install engraved plastic laminate sign on or near each major item of mechanical equipment and each operational device, as specified herein if not otherwise specified for each item or device. Provide signs for the following general categories of equipment and operational devices:

1. Main control and operating valves, including safety devices and hazardous units such as gas outlets.
2. Meters, gages, thermometers and similar units.
3. Fuel-burning units such as boilers.
4. Pumps, compressors, and similar motor-driven units.
5. Heat exchangers, coils, evaporators, cooling towers, and similar equipment.
6. Fans and blowers.
7. Packaged HVAC central-station and zone-type units.
8. Tanks and pressure vessels.
9. Strainers, filters, humidifiers, water treatment systems and similar equipment.

B. Optional Sign Types: Where lettering larger than 1" height is needed for proper identification, because of distance from normal location of required identification, stenciled signs may be provided in lieu of engraved plastic, at Installer's option.

C. Lettering Size: Minimum 1/4" high lettering for name of unit where viewing distance is less than 2'-0", 1/2" high for distances up to 6'-0", and proportionately larger lettering for greater distances. Provide secondary lettering of 2/3 to 3/4 the size of principal lettering.

END OF SECTION 15190

## **SECTION 16010 BASIC ELECTRICAL METHODS**

### **1.1 DESCRIPTION**

A. This specification defines the general requirements for the design and construction of the electrical systems (equipment, components, and material) for the soil vapor extraction (SVE) system and the electrical resistance heating (ERH) system. All work will be completed in accordance with this specification, the National Electrical Code (NFPA 70) and Electrical Code of the City of New York.

The Contractor shall furnish all labor, materials, equipment, tools and appurtenances required to complete the work of furnishing, installing, connecting, testing and operating all electrical requirements as specified and required for complete and fully functional systems. This shall include, but not be limited to:

1. Conduits, fittings, boxes, enclosures, and cabinets for electrical equipment and conductors.
2. Power, control, and communication (e.g. telephone) conductors, cables and associated splices, connectors, and terminations for electrical systems rated 600 volts and less, and for the 4160 Volt primary Utility supply to the site equipment (to be rated at 15KV).
3. Instrumentation, programmable logic controllers (PLC), controls and relays.
4. Grounding and bonding.
5. Arrangement with Utility Companies for permanent electric and telephone services including payment of Utility Companies' charges for service.
6. Electric and telephone service entrances.
7. Main and distribution panelboards, motor controllers, contractors, and associated wiring devices rated 600 V or less, and 15 KV or less.
8. A complete electrical heat trace system for exterior piping.
9. All switchgear, generators, transformers and loadbreak switches, and protective devices for all voltages.
10. All hardware, safety devices and tests required by Consolidated Edison (ConEd) for primary and secondary electrical service to the site.

B. It is the intent of this specification Section that all equipment and devices, furnished and installed under this and other specification Sections, be properly connected and interconnected electrically with other equipment so as to render the installations complete for successful operation, regardless of whether all the connections and interconnections are specifically noted in the Specifications or shown on the Contract Drawings. Additional requirements and information may be found on the Contract Drawings.

C. The electrical classification in and around the SVE trailer and ERH (PCU) system is “non-hazardous”.

## **1.2 REFERENCE STANDARDS**

A. Electrical material and related equipment and installation shall conform in all respects to the latest approved issue of the following standards:

1. National Electric Code (NFPA 70)
2. Electrical Code of the City of New York
3. National Electrical Manufacturers Association (NEMA).
4. The American National Standards Institute (ANSI).
5. The Institute of Electrical and Electronic Engineers (IEEE).
6. Insulated Power Cable Engineers Association (IPCEA).
7. National Electrical Safety Code (NESC).
8. National Fire Protection Association (NFPA)
9. Joint Industrial Council (JIC)
10. Instrument Society of America (ISA)
11. Underwriters Laboratories (UL)
12. Occupational Safety and Health Association (OSHA)
13. Factory Mutual (FM)

## **1.3 QUALITY ASSURANCE**

A. Requirements of Regulatory Agencies

1. Permits:
  - a. The Contractor is responsible for obtaining all required permits prior to commencement of Work and, upon completion of the Work, obtain and deliver a Certificate of Inspection and Approval from the State Board of Fire Underwriters or other authority having jurisdiction.
  - b. The Contractor must meet all the requirements of ConEd Energy Services.
2. Codes:
  - a. Material and equipment shall be installed in accordance with the current standards and recommendations of the UL, NEC, NESC, NFPA, OSHA , NEMA, ANSI and with local codes which apply.
  - b. Where discrepancies arise between codes, the most restrictive regulation shall apply.
3. Tests by Independent Regulatory Agencies:
  - a. Electrical material and equipment shall be new and shall bear the label of the Underwriters' Laboratories, Inc., Factory Mutual (FM), or other nationally-recognized, independent testing laboratory, wherever standards have been established and label service regularly applies.

4. The American National Standards Institute (ANSI) device function numbers shall be used to denote all protective devices, circuit breakers, breaker auxiliary contacts, etc., on all applicable medium voltage drawings and documentation.
- B. Install service entrance in accordance with the rules and regulations of the local Utility Company, the National Electric Code, and the Electrical Code of the City of New York.

#### **1.4 DELIVERY, STORAGE AND HANDLING**

- A. Coordinate material and equipment delivery with the project schedule.
- B. Notify the Owner's Representative immediately, in writing, if material or equipment delivery will adversely affect the project schedule, include documentation from equipment suppliers indicating the revised delivery dates and the reason for the delay.
- C. Exercise care during loading, transporting, unloading and handling of materials to prevent damage.
- D. Check for defective or damaged materials and for incomplete equipment shipments after equipment delivery to the project site.
- E. Store materials and equipment on the construction site in enclosures or under protective covering to keep it clean, dry and undamaged. Secure materials and equipment to prevent theft or damage.
- F. Replace or repair, to the satisfaction of the Owner's Representative all defective or damaged materials and equipment at no additional cost to the Owner. Replace stolen materials and equipment at no additional cost to the Owner.

#### **1.5 IDENTIFICATION OF EQUIPMENT**

- A. All electrical items shall be identified. Identification shall be in addition to the manufacturer's nameplates and shall serve to identify the item's function and the equipment or system that it serves or controls.
- B. Listing and Labeling: Provide products specified in this Section that are listed and labeled.
1. The Terms unlisted and labeled: As defined in the "National Electrical Code," Article 100.
  2. Listing and Labeling Agency Qualifications: A "Nationally Recognized Testing Laboratory (NRTL) as defined in OSHA Regulation 1910.7.
- C. All new equipment shall be identified by means of laminated phenolic nameplates incised to show one-inch high, black letters on a white background. Labels shall be fastened by means of 3/16-inch diameter, round head, stainless steel, self-tapping screws. Equipment whose designation has been changed shall be relabeled accordingly.



- D. Wires and cables shall be color coded and identified by means of heat shrink PVC wire markers.
- E. Pull and junction boxes, distribution panels, control panels, electrical manholes, disconnect switches, lighting panels and termination panels shall be identified with laminated phenolic nameplates showing the names of the feeders or system wires and cables passing through them.

## **1.6 CONDUITS, BOXES AND CABINETS**

### **A. Conduits include the following:**

- 1. Rigid galvanized steel conduit.
- 2. Intermediate metal conduit (IMC), either galvanized steel or aluminum is NOT allowed.
- 3. Liquid tight flexible metal conduit (where allowed by codes).
- 4. PVC Conduit

### **B. Boxes, enclosures, and cabinets shall include the following:**

- 1. Device boxes.
- 2. Outlet boxes.
- 3. Pull and junction boxes.
- 4. Cabinets and hinged cover enclosures and panels.

### **C. Available Manufacturers: Subject to compliance with requirements, manufacturers offering Products that may be incorporated in the Work include, but are not limited to, the following:**

- 1. Rigid metal conduit:
  - a. Monogram Co., AFC.
  - b. Allied Tube and Conduit, Grinnell Co.
  - c. Rob-Roy Industries, Inc.
  - d. V.A.W. of America, Inc.
- 2. Conduit Bodies and Fittings:
  - a. Emerson Electric Co., Appleton Electric Co.
  - b. General Signal, O-Z/Gedney Unft.
  - c. Crouse-Hinds Electrical Construction Materials.
- 3. Boxes, Enclosures, and Cabinets:
  - a. Hoffman
  - b. General Signal,
  - c. O-Z/Gedney.
  - d. Raco, Inc.
  - e. Hubbell Inc.
  - f. Thomas & Betts Corp.
  - g. American Electric
  - h. Appleton
  - i. Keystone

D. Rigid Metal Conduit

1. Galvanized Rigid Steel Conduit, hot-dipped galvanized or electro-galvanized steel: ANSI C80.1.
2. Fittings: NEMA FB 1, compatible with conduit materials.

E. Liquid Tight Flexible Metal Conduit

1. Interlocked steel construction with PVC jacket.
2. Fittings: NEMA FB1, compatible with conduit materials.
3. Use maximum four (4) foot length at motors and equipment for vibrational, movement purposes, and restricted connections as defined by NFPA Article 70(NEC Code).

F. Outlet and Device Boxes

1. Sheet Metal Boxes: NEMA OS 1.
2. Cast Metal Boxes: NEMA FB 1, type FC, cast fer alloy box with gasketed cover.
3. Minimum box size shall be as indicated in Article 314 of the National Electrical Code for the conductors and devices installed and shall be approved for the environmental condition of the location where they will be installed.

G. Pull and Junction Boxes

1. Small Sheet Metal Boxes: NEMA OS 1.
2. Cast Metal Boxes: NEMA FB 1, cast aluminum with gasketed cover.
3. Minimum box size shall be as indicated in Article 314 of the National Electrical code for the conductors installed and shall be approved for the environmental condition of the location where they will be installed.

H. Cabinets and Enclosures

1. Hinged Cover Enclosures: NEMA 250, Type 4 or Type 4X brushed stainless steel enclosures with continuous hinge cover and flush latch or, carbon steel enclosures. Finish inside and out with manufacturer's standard enamel.

Interior: White; Exterior: Grey

2. Cabinets: NEMA 250, Type 4 - galvanized steel box with removable interior panel and removable front, finished inside and out with manufacturer's standard enamel, Interior: White; Exterior: Grey. Hinged door in front cover with flush latch and concealed hinge. Include metal barriers to separate wiring of different systems and

voltage, and include a sub-panel and feet where required for freestanding equipment.

I. Examination: Examine surfaces to receive conduits, boxes, enclosures, and cabinets for compliance with installation tolerances and other conditions affecting performance of the conduit system. Do not proceed with installation until unsatisfactory conditions have been corrected.

J. Wiring Methods

1. Outdoors: Use the following wiring methods:

- a. Exposed: Rigid metal conduit
- b. Buried: Rigid metallic conduit
- c. Boxes and Enclosures: NEMA Type 4-Steel or Type 4-stainless steel.

2. Indoors: Use the following wiring methods:

- a. Exposed: Rigid metal conduit.
- b. Boxes and Enclosures: NEMA 4-Steel or stainless steel.

K. Installation

- 1. Install conduits, boxes, enclosures, and cabinets as indicated, according to manufacturer's written instructions and the contract drawings and specifications; or as required.
- 2. Raceways shall be sized per the National Electrical Code in accordance with the quantity, size, type and insulation of conductors to be installed; however, raceways shall be minimum one-half inch (1/2") trade size for the branch circuit wiring and minimum three-quarter (3/4") trade size for all telephone, intercommunication, instrumentation systems and for all branch circuit "Home Runs" to panelboards.
- 3. Install conduits level and square and at proper elevations. Provide adequate headroom and ability for operator access, breakdown of preventative maintenance.
- 4. Contractor shall coordinate layout and installation of conduit and boxes with other construction elements to ensure adequate headroom, working clearance, and access.
- 5. Complete conduit installation before starting conductor installation.
- 6. Provide with a #14 AWG fish wire in all telephone, instrumentation, etc., "spare" or "empty" conduit runs to facilitate future installation of conductors.
- 7. Support conduit as specified in NFPA Article 70 (NEC), NEMA and Requirements of the "Unistrut" Corporation. The more stringent shall govern in all cases.
- 8. Use temporary closures to prevent foreign matter from entering conduit.

9. Protect stub-ups from damage where conduits rise through concrete pad with oversized SCH. 40 PVC pipe and floor slabs. Arrange so curved radius portion of bends is not visible above the finished slab.
10. Make bends and offsets per NEC/NEMA codes/requirements so the inside diameter is not reduced. Unless otherwise indicated, keep the legs of a bend in the same plane and the straight legs of offsets parallel.
11. Use conduit fittings compatible with conduit and suitable for use and location (NEMA Rating).
12. Conduits embedded in asphalt/concrete paving shall be installed in middle third of the slab thickness where practical, leaving at least 1 inch (25 mm) of asphalt/concrete cover.
  - a. Secure conduits to reinforcing rods to prevent sagging or shifting during asphalt/concrete placement.
  - b. Space conduits laterally to prevent voids in the concrete.
  - c. Run conduit larger than 1-inch trade size parallel to or at right angles to main reinforcement. When at right angles to reinforcement, place conduit close to slab support.
13. Install exposed conduits parallel to or at right angles to nearby surfaces or structural members, and follow the surface contours as much as practical.
  - a. Run parallel or banked conduits together, on common supports where practical.
  - b. Make bends in parallel or banked runs from same centerline to make bends parallel. Use same type factory elbows only where they can be installed parallel; otherwise, provide field bends for parallel conduits.
14. Join conduits with fittings designed and approved for the purpose and make joints tight.
  - a. Make raceway terminations tight. Use bonding bushings or wedges at connections subject to vibration. Use bonding jumpers throughout.
  - b. Use insulating bushings to protect conduits.
15. Terminations: Where conduits are terminated with locknuts and bushings, align the conduit to enter squarely, and install the locknuts with dished part against the box. Where terminations cannot be made secure with one locknut, use two locknuts, one inside and one outside the box.
16. Where terminating in threaded hubs, screw the conduit or fitting tight into the hub so the end bears against the wire protection shoulder. Where chase nipples are used, align the conduit so the coupling is square to the box, and tighten the chase nipple so no threads are exposed.

17. Stub-Up Connections: Extend conduits through concrete floor for connection to free standing equipment with an adjustable top of coupling threaded inside for plugs, and set flush with the finished floor. Extend conductors to equipment with rigid steel conduit. Connect rigid steel conduit to vibrating, expanding, adjustable equipment using LIQUID TIGHT flexible metal conduit.
18. Install hinged cover enclosures and cabinets plumb. Support at each corner.
19. Provide grounding connections for conduits, boxes, and components as specified in this Contract Document and/or by the manufacturer. Tighten connectors and terminals, including screws and bolts, according to equipment manufacturers published torque-tightening values for equipment connectors. Where manufacturers torque requirements are not indicated, tighten connectors and terminals according to tightening torque specified in UL Standard 486 A, then meggar (resistant measurement in ohm) connections. Any connection that exhibits more than 25 ohms shall be modified/repared or replaced until 25 ohms or less is achieved and the Contractor bear all cost with no additional cost incurred to the Owner.
20. Underground Raceway
  - a. Encase underground raceway in rigid galvanized steel conduit (RGS). Encased in 3-inch thick red-dyed concrete.

Encase all underground rigid galvanized steel (RGS) raceways for less than 600 volts in sand envelope. Form sand envelope around raceways, 3-inch minimum thickness sand at top, bottom and sides of raceways, 2-1/2 inch minimum thickness sand between raceways. Top of sand envelope shall be finished red and shall be not less than 24 inches below finished grade, except where under building slabs.
  - b. Conduits in the same trench must be spaced a minimum of 7-1/2 inches on center. Tie raceways in place to prevent floating. Pour sand/concrete as soon as possible after placing and securing of raceways.
  - c. Pull iron-shod mandrel, not more than 1/4 inch smaller than bore of raceway to remove any internal obstructions. Clean raceway internally by drawing-through the raceways properly sized cylindrical brushes as many times as necessary to remove the dirt.
  - d. Where raceways rise above grade and terminate in a building, provide conduit sealing bushing on each raceway.
  - e. Provide trenching, backfill and restoration where required. Trenches shall be excavated to depths required to provide the minimum necessary cable cover. Bottoms of trenches shall be smooth and free of stones and sharp objects. Where bottoms of trenches comprise materials other than sand or stone-free earth, 3-inch layers of sand or stone-free earth shall be laid first and compacted to the approximate densities of surrounding firm soil.

## 1.7 WIRES AND CABLES

A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated in the Work include but are not limited to, the following:

1. Wires and Cables:
  - a. American Insulated Wire Corporation, Leviton Manufacturing Co.
  - b. Carol Cable Company, Inc.
  - c. Senator Wire & Cable Co.
  - d. Belden
2. Connectors for Wires and Cables:
  - a. AFC, Monogram Co.
  - b. AMP, Inc.
  - c. Electrical Products Division, 3M Co.
  - d. O-Z/Gedney Unit, General Signal.
3. Minimum conductor sizes allowed for use in permanent circuits are:

600V or less Power Cable	#14 AWG
Control Circuits	#14 AWG
Instrumentation Cables	#16 AWG (Single Pairs)
	#18 AWG (Multiple Pairs)

B. Medium voltage cable (Above 600 volts to 15,000 volts)

Feeder cables provided shall be 15 KV, shielded power cables, copper conductors, corrugated aluminum sheath, Type MV-105, unless specified otherwise on the one-line drawing or specifications for the project.

C. Lower voltage cable (600 volts and below)

1. Power and control tray cable, type TC, shall be rated for 600V, 90C, with stranded copper conductors, flame retardant, heat resistant thermoplastic insulation, and a sunlight resistant jacket (THHN).
2. Single conductor wire and cable shall be rated for 600V, 90C, with stranded copper conductors, flame retardant, moisture resistant thermoset insulation (XHHW).
3. Single pair or triplex instrument cable shall be rated for 600V, 75C, with twisted #16 stranded copper conductors, overall shield with drain wire, and an overall jacket of CPE or PVC.
4. Multiple pair or triplex instrument cables shall be rated for 600V, 75°C, with individually shielded groups of two or three twisted #18 stranded copper conductors having an individual drain wire for each group, an overall shield with drain wire, and an overall jacket of CPE or PVC.

5. All motor feeder cables shall have an appropriate sized bare copper grounding conductor.
6. All control panel or switchboard wiring shall be rated 600V, 75C type SIS insulation.
7. No splices shall be permitted in any wire or cable except where devices come pre-assembled with pigtail wires. Such splices shall be made using twist-on type or crimp-on type splices and shall be enclosed in an appropriate conduit fitting or splice-box.
8. All twisted pairs or triads with shields used in instrumentation circuits shall be designed to have the shield continuous throughout the wiring system. All shield drain wires shall terminate on terminal blocks.
9. All wires shall be labeled with permanent wiring markers on each end. Markers using adhesive material are not acceptable.
10. Wiring within panels shall be ordered neatly in grill or slotted type wire ways (i.e. Panduit).
11. Terminal blocks used for signal and control circuits shall be rated for 600V and shall have captive screws with pressure clamps suitable for either two #14 wires or type spade type crimp on wire terminals.
12. Insulation: ANSI/NFPA 70; Type XHHW insulation for feeders and branch circuits larger than #8 AWG; Type THHN/THWN insulation for feeders and branch circuits #8 AWG and smaller.

D. Control and Communication Wires and Cables

1. Single conductor type SIS switchboard wire, stranded copper conductor.
2. Multi-conductor cable: PVC-Nylon insulated, #14 AWG stranded copper conductors, color-coded.
3. Multi-pair individually shielded cable: Stranded #14 AWG copper conductors, color-coded, 100% foil shield with drain wire, 600-volt insulation.
2. Telephone cable: Multi-conductor, PVC insulated, #22 AWG solid copper conductors, color-coded, 300 volt insulation.
3. Thermocouple extension cable shall be rated for 400V, 90C XLPE insulation, individual pair shield with drain wire, overall shield with drain wire, and an overall jacket of CPE or PVC.
4. Alarm circuits shall be wired so that the circuit is continuous under normal conditions and open to indicate an alarm condition.
5. Circuit protection for control systems shall be designed so that an electrical fault

does not affect more than one unit or system; circuit breakers or fuses are acceptable. All control circuits leaving a control panel to field connections shall be fused.

6. A disconnecting means shall be provided to permit servicing of individual systems or control components. Where all power to a packaged unit is supplied by one main feeder, a main disconnect shall be provided so the entire package may be de-energized at one location. Equipment skids provided with duplicate trains of equipment such as pumps, fans, blowers, etc., shall be provided with an individual disconnect and controls for each train of equipment such that one train of equipment may be removed from service without de-energizing the second train. All disconnects shall be capable of being locked out with a 1/4" shank lock, in the off position only.
7. Auxiliary control relays shall have DPDT or 3PDT contacts, with contact ratings of 10A or more at 30VDC or 120VAC, and 24VDC or 120VAC coils. All relays shall have an operate indicator, either mechanical or illuminated. All relays used shall be of the same style; relays may be Square D type KP or KU, or equal.
8. All electrical equipment shall be designed so that fuse replacement, circuit breaker setting or resetting, routine service adjustments, etc., shall be readily accessible without removing the equipment from service.
9. Indicating lights and pushbutton colors shall be red for operating and green for not operating.
10. Electrical control circuits may be either 24VDC or 120VAC; however, only one voltage level shall be used throughout.
11. All vendor furnished 120VAC 1 phase motors (except those furnished as a part of chemical metering pump assemblies) shall be supplied with motor starters, which shall include a disconnecting device capable of being locked in the off or open position only by a 1/4" shank lock.
14. All interconnecting wiring between control panels or between control panels and Owner's equipment shall terminate on terminal blocks in junction boxes supplied by Vendor as a part of the equipment.

#### E. Motor Wiring

1. Single conductor wire and cable shall be rated for 600V, 90°C, with stranded copper conductors and cross-linked polyethylene (XHHW) insulation.
2. All three-conductor motor feeder cable shall have an appropriately sized bare copper equipment-grounding conductor or green insulated ground wire.
3. No splices shall be permitted in any wire or cable except where devices come pre-assembled with pigtail wires. Such splices shall be made using twist-on type or



crimp-on type splices and shall be enclosed in an appropriate conduit fitting or splice-box.

4. All wires shall be labeled with permanent wiring markers on each end. Markers using adhesive material are not acceptable.

#### F. Grounding

All electrical equipment shall be securely grounded in accordance with the latest version of the National Electric Code (NEC), and the City of New York Electrical Code.

#### G. Lighting

All wiring shall be completely enclosed in rigid galvanized steel (R.G.S.) conduit.

#### H. Connectors and Splices

UL-listed factory-fabricated wiring connectors of size, ampacity rating, material, and type and class for application and for service indicated.

#### I. Nameplate and Identification

1. Externally visible, permanent nameplates shall be provided for each control panel to identify each instrument, switch, meter, relay, control switch, indicating light, circuit breaker, etc. Equipment and terminal blocks within a control panel shall also be marked in a permanent manner. Nameplates shall be laminated plastics with black engraved characters on a white background. Nameplates may be attached using screws or other mechanical fasteners or permanent adhesives.
2. Lettering sizes shall conform to ISA and NEMA guidelines.

#### J. Installation

1. Install wires and cables, according to manufacturers written instructions and these specifications. Stranded copper wire is to be used where specified by equipment manufacturers, inside control panels, and where movement, vibration, or many changes in path or direction occur.
2. Pull conductors into conduit simultaneously where more than one is being installed in same conduit. Use pulling compound or lubricant where necessary; compound used must not deteriorate conductor, insulation or conduit. Use pulling means, including fish tape, cable, rope, and basket-weave wire/cable grips that will not damage cables, cable/conductors, insulation or conduit.
3. Conductors shall not be installed until raceways system, including all outlets, cabinets, bushings and fittings, is completed. Verify that all work of other trades that may cause conductor damage is completed. Use cable lubricants when necessary. Do not use mechanical means to pull conductors No. 8 or smaller.

4. In general, conductors shall be the same size from the last protective device to the load.
5. All feeder connections shall be made to bus and other equipment using solderless, pressure type terminal lugs.
6. Conductor Splices: Keep to minimum and as approved by the ENGINEER. Install splices and tapes that possess equivalent or better mechanical strength and insulation ratings than conductors being spliced. Use splice and tap connectors that are compatible with conductor material.
7. For splices and taps, No. 10 AWG and smaller, use solderless "Twist on" connectors having spiral steel spring and insulated with a vinyl cap and skirt.
8. For splices and taps, No. 8 and larger, use solderless "Split Bolt" type connectors.
9. Use cast connectors for ground conductors.
10. Make all splices and connections in accessible boxes and cabinets only.
11. Cover uninsulated splices, joints and free ends of conductor with rubber and friction tape or PVC electrical tape. Plastic insulating caps may serve as insulation.
12. Feeder conductors shall be continuous from point of origin to load termination without splice. If this is not practical, contact the Owner's Representative and receive written approval for splicing prior to installation of feeder(s). Where feeder conductors pass through junction and pull boxes, bind and lace conductors of each feeder together. For parallel sets of conductors, match lengths of conductors as near equal as possible.
13. Branch circuit conductors installed in panelboards and control conductors installed in control cabinets and panels shall be neatly bound together using "Ty-Raps" or equivalent.
14. Provide conduit seals and explosion proof devices as dictated by the National Electrical Code for all hazardous locations.
15. For Motor Terminals and Similar Bolted Connections for Wire and Cable #12 AWG and Above use the following:
  - a. Use proper size pressure type eyelugs on stranded conductors. Form a circular loop in bare solid conductors.
  - b. Bolt lugs together back to back using the proper size bolt with a flat washer placed under the bolt head and a lock washer placed under the nut. The bolt shall be cut off short as possible and cleaned of any sharp edges.

- c. First, insulate with a friction tape starting at end of conductor insulation without covering conductor insulation to eliminate sharp edges and voids.
  - 4. Second, start vinyl plastic tape between conductors, pull tightly into crotch, wind around one conductor and back into crotch, then around second conductor and into crotch again, pulling tape as tightly as possible on each turn. Repeat this procedure until six layers of tape are pulled into crotch. Press conductors together firmly. Tape over all with vinyl plastic tape until it extends a short distance beyond the end, turn tape over end and wind back to starting point. Pull tape as tightly as possible on each turn and continue taping as above to a thickness equal to one-and-one-half times the thickness of the original conductor covering.
16. Wiring at Outlets: Install with at least 12 inches (300 mm) of slack conductor at each outlet.
17. Connect outlets and components to wiring and to ground as indicated and instructed by the Contract Drawings and specifications, and the manufacturer. Tighten connectors and terminals, including screws and bolts, according to equipment manufacturers published torque-tightening values for equipment connectors. Where manufacturers torque requirements are not indicated, tighten connectors and terminals according to tightening torque specified in UL Standard 486A. Where manufacturers torque requirements are not indicated, tighten connectors and terminals according to tightening torque specified in UL Standard 486 A then meggar (resistant measurement in ohms) connections. Any connection that exhibits more than 25 ohms or more shall be modified/repared or replaced until achieved with the Contractor bearing all cost with no increase incurred to the Owner.

#### K. Testing

Power wiring at 480V or lower voltages protected at more than 1 Ampere shall be tested for insulation resistance. Power feeders at medium voltages shall also be tested for insulation resistance. A record of such tests shall be prepared and submitted to the URS Project Manager.

All circuits shall be checked for continuity and grounds prior to power application.

A functional test of equipment assemblies shall be performed on each individual component of such an assembly before shipment to the site. Whether witnessed or not, Vendor shall submit a record for each assembly, certifying that such tests have been successfully performed.

All such equipment covered by this specification shall be subject to inspection and/or witnessed testing by the Owner or Owner's authorized personnel at Owner's expense.

#### L. Drawings and Documentation

Typical drawings of equipment are not acceptable unless they are revised to show the specifics of the equipment being furnished. Drawings and data listed below shall be

submitted in the quantity and as specified in the Contract Documents or Purchase Order. The following are required:

Equipment Outlines and Arrangement Drawings, including floor plans with recommended anchor bolt sizes and locations.  
Elementary or Schematic Diagrams.

Connection Wiring Diagrams for wiring between items of supplied equipment and between equipment and Owner's equipment.

Control Panel Arrangement Drawings.

Documentation shall include a listing of the voltage and load requirements for all circuits to be powered from Owner's power supplies.

Motor data sheets for each motor shall include motor nameplate voltage and current, hp, rpm, service factor, and any other data pertinent to operation in the equipment supplied.

## **1.8 UTILITY SERVICE REQUIREMENTS**

A. Contractor shall make arrangements with the Utility Companies to obtain permanent electric and telephone services for the Project and shall install service equipment as required by the Utility Companies. Utility Companies will connect service drops to service entrance cabinets/enclosures. Contractor is required to pull and terminate services from service entrance locations per the specifications to the final branch locations.

### **B. Electrical System Requirements:**

1. Minimum Electric Service Requirements: (2) x 500 KVA, 4160V volts, three phase, four-wire, 60 Hertz. Contractor responsible for providing power supply that is adequate for all systems and equipment installed under the Contract Documents.
2. Service Feeder: Overhead service drop originating from location coordinated with Utility and meeting all Utility requirements routed to a padmount transformer provided by the Contractor.
3. Service disconnect: 480 Volt, 600-Amp main disconnect from each source approved for use as service equipment.
4. Metering Equipment
  - a. Meter: As approved by the Utility Company.
  - b. Meter Base: As approved by the Contractor and meeting Utility requirements.
  - c. Metering Transformer Cabinet: As approved by the Contractor and meeting Utility requirements.

### C. Telephone System Description

1. Telephone Service Requirements: Five-line, voice grade, tone dial for:
  - a) Contractor's trailer,
  - b) Contractors fax machine (optional),
  - c) Treatment System auto dialer,
  - d) NYSDEC phone and,
  - e) NYSDEC fax machine.

### D. Installation

1. The electric and telephone services shall be installed in strict accordance with the utility company's requirements and standards.
2. The Contractor shall verify the electric service requirements by calculating the total connected load of the approved equipment to be installed and increase the electrical service size and equipment if required.

## 1.9 PANELBOARDS AND CONTROLLERS

### A. Panelboards and controllers shall comply with the following:

1. ANSI/NEMA ICS 6 - Enclosures for Industrial Controls and Systems.
2. FS W-C-375 - Circuit Breakers, Molded Case; Branch Circuit and Service.
3. FS W-P-115 - Power Distribution Panels.
4. NEMA ICS 2 - Industrial Control Devices, Controllers, and Assemblies.
5. NEMA Standard: Comply with NEMA PBI, "Panelboards"; NEMA ICS 2 and NEMA ICS 6, "Industrial Controls and Enclosures."
6. UL Standards: Comply with UL 61, "Panelboards," and UL 50, "Cabinets and Boxes."

### B. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated in the Work include, but are not limited to, the following:

1. ABB Power Distribution, Inc.
2. Asco Electrical Products Co., Inc.
3. Eaton Corp.
4. General Electric Co.
5. Siemens Energy & Automation, Inc.
6. Square D Co.
7. Westinghouse Electric Corp.

### C. Panelboards

1. Branch circuit panelboard rated for use as service entrance equipment. NEMA PB1; circuit breaker type. Federal Specification W-P-115a; Type 1, Class 1.
2. Enclosure: Surface mounted NEMA 4-Steel, with manufacturer's standard gray (ANSI 61) enamel.
3. Panels shall have full size neutral bussing and shall have a ground bus sized per the National Electric code.
4. Panels shall be surface mounted and shall have a single door with cylinder lock and catch assembly. A directory frame with clear plastic protection for the directory shall be included and mounted to the inside of the door. The directory shall be typewritten, and completed prior to the Contractor leaving the site.
5. Panels shall be supplied with molded-case, bolt-in type, thermal magnetic trip circuit breakers.
6. Molded Case Circuit Breakers: NEMA AB1; Federal Specification W-C-375; bolt-on type thermal magnetic trip circuit breakers, ratings as required.
7. Circuit breakers shall be toggle, quick-make, quick break type with a positive indication of tripped action.
8. Where required, circuit breakers shall have inherent ground fault protection which shall be set to instantaneously trip at 5 ma.
9. Where required, panels shall have main circuit breakers.
10. Minimum Integrated Short Circuit Rating: Coordinate required ampere rms symmetrical rating, with utility company and provided as required.

**D. Motor Controllers**

1. Magnetic Motor Starter: NEMA ICS 2; AC general-purpose Class A magnetic controller for induction motor rated in horsepower.
2. Full Voltage Starting: Non-reversing type.
3. Coil Operating Voltage: 120 volts, 60 hertz.
4. Size: NEMA ICS 2; size as required, with a minimum Size 1 NEMA CLASS Motor Starter .
5. Overload Relay: NEMA ICS 2; bimetal.
6. Enclosure: NEMA ICS 6; Type 4.
7. Auxiliary Contacts: NEMA ICS2: two normally open, and two normally closed field convertible contacts in addition to seal-in contact.

8. Pushbuttons: NEMA ICS 2; START/STOP in front cover for the treatment system equipment.
9. Selector Switch: NEMA ICS 2; HAND/OFF/AUTO in front cover for the treatment system equipment.
10. Motors rated ½ horsepower and smaller: Motor starters shall be fractional horsepower manual type with hand-off-auto selector switch in NEMA type enclosure that satisfies the location environment and the hazardous electrical rating (as applicable).
11. For motors rated 3/4 horsepower and above: Motor starters shall be combination starter/disconnect type, employing magnetic starter, rated to match the equipment served, with thermal overload protection for each phase and with a thermal magnetic circuit breaker type disconnect sized per the circuit breaker manufacturer's recommendations for coordination with the thermal overload protection. Combination starters shall be provided with a control power transformer, with primary and secondary fusing, as required and hand-off-auto selection switch. Padlock arrangements shall be provided to lock the disconnect device in the "off" position. Starters shall be minimum NEMA Size 1, shall have a NEMA type enclosure that satisfies the location environment and shall be rated for the voltage to which they will be connected.
12. Disconnect switches shall be heavy-duty type three-pole, with operating handle mechanically interlocked with the cover, horsepower and voltage rated to match equipment served. Switches shall be provided with provision for dual-element, time delay, rejection type fuses. Switches shall be installed in NEMA type enclosure that satisfies the location environment.

#### E. Installation

1. General: Install panelboards and accessory items in accordance with NEMA PB 1.1, "General Instructions for Proper Installation, Operation and Maintenance of Panelboards Rated 600 Volts or Less" and manufacturers' written installation instructions.
2. Panelboard Mounting Heights: Top of enclosure 6 ft. above finished floor or grade, except as indicated on the contract drawings or explained in the specifications.
3. Panelboard Mounting: Plumb and rigid without distortion of box.
4. Circuit Directory: Typed and reflective of final circuit changes required to balance panel loads. Obtain the Departments or Engineers approval before installing.
5. Install filler plates in unused breaker spaces.
6. Wiring in Panel Gutters: Train conductors neatly in groups, bundle, and wrap with wire ties after completion of load balancing.

7. Panels shall be labeled with black letters engraved on white plastic tag securely fastened to the panel.
8. Provide and mount under plastic in each panelboard directory frame, a neatly typewritten directory identifying the branch circuit devices and the circuits, and areas that they serve.
9. Install motor control equipment in accordance with manufacturer's instructions and contract specifications.
10. Motor Controller mounting height: 54 inches above finished floor or grade.
11. Motor Controller Mounting: Plumb and Rigid without distortion of enclosure. A disconnect switch shall be mounted at each motor location per NEC requirements.
12. Motor Controllers shall be labeled with black letters engraved on white plastic tags; identifying the equipment that is served.

**F. Field Quality Control**

Visual and Mechanical Inspection: Include the following inspections and related work:

1. Inspect for defects and physical damage, labeling, and nameplate compliance with requirements of up-to-date drawings and panelboard schedules.
2. Exercise and perform operational tests of all mechanical components and other operable devices in accordance with manufacturer's instruction manual.
3. Check panelboard and motor controller mounting, area clearances, and alignment and fit of components.
4. Check tightness of bolted electrical connections with calibrated torque wrench. Refer to manufacturer's instructions for proper torque values.

**1.10 GROUNDING AND BONDING**

**A. Acceptable Manufacturers**

1. Burndy Corp.
2. Cadweld
3. Erico Products Inc.
4. Oz/Gedney Co.
5. Thermoweld
6. Thomas & Betts

**B.** Provide grounding electrodes, conductors, connections, hardware and bonding as required for proper and complete electrical system and equipment grounding.



- C. All grounding system components and hardware shall be UL labeled and listed.
- D. The grounding system components and hardware furnished under this specification shall be the standard product of a manufacturer with established reputation and experience and who shall have produced the specified components and hardware for a minimum of three years.
- E. The grounding system and bonding shall meet or exceed the requirements of Article 250 of the latest edition of the National Electric Code (NFPA 70), and City of New York Electrical Code. In the event of a conflict or discrepancy, the more stringent requirement shall apply.
- F. The grounding system resistance to ground shall be 25 ohms or less.
- G. Ground Rods
  - 1. Ground rods shall be copper clad steel at least 5/8" in diameter and 10 feet long. The rods shall have a hard, clean, smooth, continuous surface throughout the length of the rod. Each ground rod shall be die-stamped near the top with the name or trademark of the manufacturer and the length of the rod in feet.
- H. Conductors
  - 1. Grounding and bonding conductors, cables and braided straps shall be bare, stranded, electrical grade, copper sized as indicated in the contract documents or as required by NEC Article 250, whichever requirement is more stringent. Bonding jumpers shall have a cross-sectional area at least equal to the associated grounding conductor.
  - 2. Provide grounding and bonding conductors and cables with insulation type and color as specified and indicated; conductors and cables shall be same make as for 600-volt conductors.
- I. Clamps, Connectors, Lugs, Terminals and Hardware
  - 1. Provide solderless ground clamps, connectors and hardware made of corrosion resistant silicon-bronze as required; clamps, connectors and hardware shall be suitable for direct burial.
  - 2. Provide solderless lugs and terminals constructed of copper as required; lugs and terminals shall be two hole type for conductor sizes #1/0 and larger.
- J. Installation
  - 1. General
    - a. Install all grounding system components and hardware in accordance with manufacturer's instructions and NEC Article 250.
    - b. Install all grounding system cables and conductors with enough slack to prevent undue stress and/or breaking.

- c. Grounding conductors or cables subject to abrasion or mechanical damage shall be installed in rigid metal conduit.
- d. All grounding conductors shall be installed in one continuous length without splice or joint.
- e. All bonding or grounding conductors shall be terminated in a listed lug that shall be bolted or screwed to a fixed metallic portion of the building structure or equipment enclosure.
- 6. All surfaces at points of grounding connection shall be thoroughly cleaned and buffed just prior to making the connection.
- g. Grounding conductors that pass through floor slabs, walls, etc., unprotected shall be installed in Schedule 40 PVC conduit sleeves.

## 2. Building Structure Grounding

- a. Do not install ground rods and ground ring conductors in cinder fill or backfill with soil containing corrosive materials.
- b. Install ground rods around perimeter of building in locations indicated; install additional ground rods as required to achieve resistance to ground specified. Ground rods shall be driven to a depth such that the top of the ground rod is 24" below finished grade.
- c. Install a bare copper ground ring conductor, size as required, around the perimeter of the building 30" below finished grade. The ground conductor shall be connected to each ground rod by a "Cadweld" connection.
- c. Install a bare copper bonding conductor, size as required, from the ground ring conductor to each steel building column. The bonding conductor shall be "Cadweld" to the column and connected to the ground ring conductor by a "Cadweld" connection or listed connector.

## 3. Electrical System Grounding

- 1. The electrical service shall be effectively grounded by bonding together Main Distribution Panel and the grounding electrode. The grounding electrode and bonding conductors shall be sized as indicated or as required by NEC Articles 230 and 250, whichever is more stringent.
- b. Separately derived alternating current systems shall be bonded and grounded ahead of any disconnecting or overcurrent device. The grounding electrode and conductor shall be the nearest effectively grounded metal structure or water pipe or other approved grounding electrodes.
- c. Do not install ground rods and grounding electrode conductors in cinder fill or backfill with soil containing corrosive materials.

- d. Provide a grounding electrode and install additional ground rods as required to achieve the resistance to ground specified. Ground rods shall be driven to a depth such that the top of the ground rod is 24" below finished grade.

#### 4. Equipment and Device Grounding

- a. Each feeder and branch circuit shall be provided with a green, or bare, grounding conductor, sized as indicated, and installed in the associated raceway or conduit. Each grounding conductor shall be terminated on a suitable and approved lug, bus, or bushing.
- b. All feeder raceways shall be bonded to all associated panelboards. Where multiple feeder raceways enter a common enclosure or box, all the feeder raceways shall be bonded together as well, as to the box.
- c. Terminations of all metallic raceways at panelboard, disconnect switches, equipment enclosures, junction boxes, cabinets, etc., shall be provided with grounding type bushings; except insulated type bushings shall be provided where required by the NEC.
- d. All raceway systems, panelboards, disconnect switches, starters, junction boxes, metal enclosures, motor frames, steel supports, etc., shall be effectively grounded.
- e. Conduits which run to enclosures having concentric or eccentric knockouts that partially perforate the metal around the conduit and impair the electrical connection to ground shall be provided with approved bonding jumpers.
- f. Bonding jumpers shall consist of a stranded or braided copper wire sized in accordance with NEC Article 250. The bonding jumper shall be connected from the grounding bushing on the conduit to a ground bus stud or corrosion resistant alloy bolt in the enclosure.
- g. Raceway, conduit, bus expansion joints and telescoping sections not thoroughly bonded shall be provided with approved bonding jumpers not less than #8 awg stranded bare copper.
- h. All flexible metal conduit, liquid tight conduit and Type MC cable shall be provided with a continuous, stranded, copper-grounding conductor in addition to the metallic sheath. The grounding conductor shall be sized as indicated or required by NEC Article 250, but shall not be less than #12 awg.

#### I. Tests

- 1. Measure, record, and submit value of building structure ground resistance and the electrode ground resistance to earth prior to any connections to equipment, building steel, or water service.

2. Measure, record, and submit value of building structure ground resistance and the electrode ground resistance after all connections have been made.

#### **1.11 PIPING ELECTRICAL HEAT TRACE**

- A. The electrical heat tracing cable shall be placed along the full length of all abovegrade water-bearing pipes including but not limited to raw and treated groundwater. The heat-tracing cable shall be installed as prescribed by both the pipe and the heat trace manufacturers and secured in place by means of fiberglass tape. Strapping intervals shall not exceed 18 inches. Cables shall be tested before and after installation in accordance with manufacturer's recommendations.
- B. The pipe heating cable shall be self-regulating type allowing the heater to vary its power output in response to ambient air temperature changes with respect to process pipe temperature.
- C. Controls and Alarms: Pipe tracing heater cable shall be controlled by pipe sensing type thermostats that are responsive to the pipe process temperature. Thermostats for freeze protection shall be NEMA 4X-Rated enclosures mounted outdoors and monitoring the air temperature in the area of pipeline heat trace circuit. The control switch shall be a DPDT 25 amps rated switch rated at a maximum of 277 volts. An adjustable temperature range internal potentiometer with the ability to adjust power output shall be provided as an integral part of the thermostat. Thermostats for alarm conditions shall be similar to the control thermostats. The power supply for the piping heat trace system shall be provided from one of the treatment trailer's Electrical Panels. Install heat tracing on a separate breaker.
- D. All devices shall be NEMA 4 or 4X steel or stainless steel.
- E. The Heat Trace Alarm Panel (HTAP) shall be provided and installed within the treatment systems for identification of the piping heat trace and circuit status or trouble alarm and shall be installed in accordance with the Chemlex® Industrial Heat-Tracing systems, Raychem Corporation, MenLo Park, CA.

#### **1.12 LIGHTING**

- A. Description
  1. Exterior lighting fixtures shall be swivel mounted high-pressure sodium (HPS) vapor. Quantity, size, shape and wattage to be determined based on location and conditions.
  2. Interior lighting fixtures shall be high-efficiency fluorescent type and wattage to be determined based on available space and obstructions.
- B. Quality Assurance
  1. Manufacturers: Provide products of firms regularly engaged in the manufacture of interior lighting fixtures of types and ratings required, whose products have been in satisfactory use in similar service for not less than 2 years.

2. Certified Ballast Manufacturers Association (CBM) Labels: Provide fluorescent-lamp ballasts that comply with CBM standards and carry the CBM label.
3. National Fire Protection Association (NFPA): Comply with NFPA 70, "National Electrical Code," as applicable to construction and installation of interior building lighting fixtures and emergency lighting.
4. Underwriters Laboratories, Inc. (UL): Comply with UL standards pertaining to lighting fixtures for damp or wet locations.
  - a. 57 Electric Lighting Fixtures
  - b. 542 Lampholders, Starters and Starter Holders for Fluorescent Lamps
  - c. 1570 Fluorescent Lighting Fixtures
  - d. 1572 High Intensity Discharge Lighting Fixtures
5. UL: Provide lighting fixtures and emergency lighting units that have been UL listed and labeled.

C. General Requirements

1. Lighting Fixture Requirements: Provide fixtures that meet the requirements of these specifications.
2. General Requirements: Provide lighting fixtures of sizes, types, and ratings required; complete with, but not necessarily limited to, housings, lamps, lamp holders, reflectors, ballasts, starters, wiring and batteries and battery charging devices.
  - a. Form fixture sheet metal housings to prevent warping and sagging. Return or clean all edges free of all burrs or sharp spots. Provide fixtures free from light leaks after installation.
  - b. Hinged door closure frames shall operate smoothly without binding. Fabricate frames to allow lamp installation/removal without tools. Hinge mechanism shall be designed to preclude accidental falling of hinged door closure frames during relamping operations and while secured in operating position.
  - c. Interior light reflecting surfaces shall have reflectance of not less than 85 percent for white surfaces, 83 percent for specular surfaces, and 75 percent for specular diffusing surfaces.
  - d. Provide manufacturer's standard finish applied over corrosion-resistant primer, free of streaks, runs, holiday, stains, blisters, or similar defects. Remove any fixtures showing evidence of rust at time of final inspection.
  - e. Light transmitting components shall be fabricated of 100 percent virgin acrylic plastic or water white, annealed, crystal glass. Minimum average thickness of lenses for fluorescent fixtures shall be 0.125-inch. Fabricate frames to allow for expansion of lens without distortion or cracking. For

plastic lenses, diffuses, and covers, provide high resistance to yellowing due to UV radiation.

- f. Provide each fixture with lamps as indicated. Where lamps are not indicated, provide lamps as recommended by manufacturer.
- g. For locations with severe environmental conditions such as damp or wet locations, high temperature, or flammable vapors provide fixtures specifically labeled and listed for the particular conditions to be encountered.

#### D. Fluorescent Lighting Fixtures

- 1. General: Conform to UL 1570, except for damp and wet locations conform to UL standard 57, electric lighting fixtures.
- 2. Fluorescent Lamps: Provide the number, type, and wattage required. Provide lamps conforming to American National Standards Institute (ANSI) C78.
- 3. Fluorescent Ballasts: Provide fluorescent ballasts conforming to UL935, "Fluorescent-Lamp Ballasts," ANSI C82.1, "Ballasts for Fluorescent Lamps - Specifications." Provide fixtures labeled by CBM and certified by Electrical Testing Laboratories (ETL). Ballasts shall be high power factor type, unless indicated otherwise, designed to operate on the voltage system to which they are connected. Ballasts shall be Class P with sound rating "A" unless otherwise noted. Fixtures and ballasts shall be designed and constructed to limit the ballast case temperature to 90 degrees C. when installed in an ambient temperature of 40 degrees-C.
  - a. Low Temperature Ballasts: Provide fluorescent ballasts having a minimum starting temperature of minus 20 degrees-C in fixtures located where ambient temperature may fall below 50 degrees F.
  - b. Energy-Saving Ballasts: Provide electronic high frequency energy-saving fluorescent ballasts of the CBM certified full light output type, compatible for use with energy-saving lamps tested in accordance with ANSI C82.2, "Fluorescent Lamp Ballasts - Methods of Measurement".
- 4. Electromagnetic Interference Filters: Provide electromagnetic interference filters in fluorescent fixtures. Filters shall be integral to the fixture assembly, one filter per ballast and shall suppress electromagnetic interference as required by MIL-STD-461, "Electromagnetic Emission and Susceptibility Requirements for the Control of Electromagnetic Interference."
- 5. Lamp Sockets: Comply with UL 542 and ANSI C81.20, "Electric Lamp Bases and Holders - Fluorescent Types, Specifications for."
- 6. Lamp Sockets: Conform to UL 496, "Edison Base Lampholders."

#### E. Exterior Lighting Equipment

1. Ballasts for exterior fixtures shall be rated for operation at ambient temperature to minus 20 degrees-F.
2. All exterior lighting fixtures assemblies (luminaire, pole and base) shall be constructed to with stand the force of 100-MPH wind.
3. Provide light fixtures as required to achieve a minimum of 5 foot-candles (5fc) at grade.

**F. Installation**

1. Provide interior light fixtures as required to achieve a minimum lighting level of 30 foot-candles (30fc) at 32" above finished floor.
2. Mount fixtures in true vertical and horizontal alignment.
3. Offset fixtures as required to avoid obstructions.
4. Provide all necessary hangers and supports for proper fixture installation. Such supports shall be anchored to channels in the ceiling construction, to the structural slab or to structural members above the suspended ceiling. Fixture supports shall be capable of supporting a minimum of two and one-half times the load normally carried at point of support.
5. Provide all necessary accessories for "end-to-end" mounting where continuous rows of fluorescent fixtures are required.
6. All fixture assemblies shall be grounded. Exterior metallic poles shall be grounded by connecting the equipment ground conductor to each grounding bushing and to the pole grounding terminals.
7. Exterior lighting standards shall have four (4) anchor bolts per standard, and shall be installed as per the pole manufacturer's pole base requirements. Foundations shall be formed of concrete of 3000-psi minimum compressive strength at 28 days. All corners of foundations above grade shall be chamfered 1 inch. Each foundation shall be equipped with galvanized rigid conduit elbows and nipples of appropriate length to connect between pole base and underground wiring system. Provide grounding type bushings on each conduit.
8. All wiring within exterior pole and luminaries shall be minimum No. 10 AWG copper with approved insulation.

**1.13 TESTS**

**A. Tests and procedures prior to start-up:**

1. All equipment and materials shall be clean, dry and free of foreign materials. All screw and bolt connections shall be checked for tightness.

2. Conductor connections and terminations, and all bus bar connections shall be checked for proper tightness and continuity.
3. Provide 1000-volt "Megger" insulation testing on all 600-volt feeder conductors and motor power conductors.
4. Test the grounding system to assure continuity and to assure that resistance to ground does not exceed specified limits.

B. Branch circuits shall be tested during installation for continuity and identification and shall pass operational tests to determine that all circuits perform properly.

C. Demonstration of Complete Electrical Systems

1. The Owner will assume no liability or responsibility for any portions of the installation under this contract until they are demonstrated and accepted in writing. Final demonstrations shall be made only after the Owner's Representative is satisfied that the work has been completed in accordance with the intent of the Contract Documents.
2. After the electrical system is completed, and when directed by the Owner's Representative, demonstrate the total system operation and make final adjustments to the system. If any system or piece of equipment within a system fails to function properly, rectify such defects or inadequacies and make a final demonstration as directed by the Owner's Representative.
3. Provide the services of authorized manufacturers' representatives to instruct the Owner's Representative in the proper operation of each partial or complete system installed under this Contract.
4. Pay all charges or fees, including the cost of any special test equipment, factory engineers, etc. necessary for the proper performance of the specified tests, demonstrations and instructions.
5. All demonstrations and instructions referred to shall be scheduled at the convenience of the Owner's Representative and the Owner and in no case shall be scheduled without at least seventy-two (72) hours written notice.

D. Provide additional testing as indicated in related sections in the Contract Documents.

E. For all feeder wiring rated 600 volts or less, provide 1,000 volt "Meggar" insulation test prior to energizing feeders. Use a 1000-volt motor driven megger for all tests. Test voltage shall be applied until readings reach a constant value, and until three (3) equal readings, each one (1) minute apart, are obtained. Minimum megger reading shall be 45 megohms for feeder conductors. Document test results and submit for approval prior to energizing conductors.

## 1.14 CLEANING



- A. Refuse and surplus materials shall not accumulate on the project site during the course of the work. Clean up shall be daily and removal shall be scheduled at least once a month.
- B. Upon completion of the work, remove all refuse and surplus materials and leave the premises neat and clean.
- C. Clean all equipment surfaces and touch up all damaged surfaces to the satisfaction of the Owner's Representative.
- D. Clean all lighting fixture reflector assemblies, lenses, louvers, and lamps upon completion of the installation.

END OF SECTION 16010

## **SECTION XII**

### ***Measurement for Payment***

## **SECTION XII MEASUREMENT AND PAYMENT**

### **UNIT PRICE ITEMS**

#### **BID ITEMS**

##### **UC-1 OFFSITE DISPOSAL OF NONHAZARDOUS SOIL**

###### **A. Measurement**

The provision of all work for the handling and offsite disposal of contaminated soil, as described in Section 02220 EARTHWORK and Section 02230 CONTAMINATED MATERIALS, shall be on a unit price basis.

Soil disposal shall be measured as the actual tons of soil transported to and disposed of at an approved disposal facility. No payment will be made for this item until the Contractor submits weigh slips from the disposal facility to substantiate the quantity of soil disposed.

###### **B. Payment**

Payment for this item shall be on a unit price basis for the actual tons of soil transported to and disposed of at an offsite facility. The unit price shall include rolloff rental, staging, handling, sampling, treatment as necessary, transportation, disposal, and all applicable disposal fees. The Contractor shall not be paid for disposal of soil resulting from over excavation. The dimensions of trenches will be verified by the Engineer in the field. If the trench width or depth are larger than shown on the contract drawings, the Contractor shall be responsible for disposal of soil excavated beyond the dimensions shown. The amount excavated shall be limited to the dimensions shown on the Drawings or as approved by the Department.

##### **UC-2 OFFSITE DISPOSAL OF HAZARDOUS SOIL**

###### **A. Measurement**

The provision of all work for the handling and offsite disposal of contaminated soil, as described in Section 02220 EARTHWORK and Section 02230 CONTAMINATED MATERIALS, shall be on a unit price basis.

Soil disposal shall be measured as the actual tons of soil transported to and disposed of at an approved disposal facility. No payment will be made for this item until the Contractor submits weigh slips from the disposal facility to substantiate the quantity of soil disposed.

**B. Payment**

Payment for this item shall be on a unit price basis for the actual tons of soil transported to and disposed of at an offsite facility. The unit price shall include rolloff rental, staging, handling, sampling, treatment as necessary, transportation, disposal, and all applicable disposal fees. The Contractor shall not be paid for disposal of soil resulting from over excavation. The dimensions of trenches will be verified by the Engineer in the field. If the trench width or depth are larger than shown on the contract drawings, the Contractor shall be responsible for disposal of soil excavated beyond the dimensions shown. The amount excavated shall be limited to the dimensions shown on the Drawing or as approved by the Department.

**UC-3 SOIL VAPOR EXTRACTION WELL**

**A. Measurement**

The provision of all work and requirements for the installation of an SVE extraction well as described in Section 02221 - WELL DRILLING AND PLACEMENT, Section 02230 - CONTAMINATED MATERIALS, and Section 11301 - SOIL VAPOR EXTRACTION SYSTEM, acceptably performed, shall be on a unit price basis. Measurement shall include the actual quantity of wells installed.

The unit price for each well shall include: the complete installation of the wells, survey, excavation, disposal of contaminated materials, all well components, the concrete well box and door, and all hose, pipe, fittings, and appurtenances to connect the well to the lateral piping. This item also includes mobilization, equipment decontamination, and demobilization per the requirements of these Contract Documents. Only piping within the well box itself is included under this item. All lateral piping is included in Item UC-6.

**B. Payment**

The Contractor shall be paid for the actual quantity of SVE wells installed, including all appurtenances as outlined above, at the unit price in the Contractor's bid. The unit price shall include all labor, equipment, and materials for installation and construction of the wells.

**UC-4 ADDITIONAL SOIL VAPOR EXTRACTION WELL**

**A. Measurement**

The provision for all work requirements for the installation of an additional SVE extraction wells as described in Section 02221 - WELL DRILLING AND PLACEMENT, Section 02230 - CONTAMINATED MATERIALS, and Section 11301 - SOIL VAPOR EXTRACTION SYSTEM, acceptably performed, shall be on a unit price basis. Measurement shall include the actual quantity of wells installed. The unit price shall include: the complete installation of the wells, survey, excavation, disposal of contaminated materials, all well components, the concrete well box and door, and all hose, pipe, fittings and appurtenances to connect the well to the extraction piping system.

The item also includes mobilization, equipment decontamination, and demobilization per the requirements of these Contract Documents.

**B. Payment**

The Contractor shall be paid for the actual quantity of additional SVE wells installed, all appurtenances as outlined above, at the unit price in the Contractor's bid. The unit price shall include all labor, equipment, and materials for the installation of the additional wells.

**UC-5 VACUUM MONITORING POINT (VMP)**

**A. Measurement**

The provision of all work and requirements for the installation of a vacuum monitoring point as described in Section 02221 - WELL DRILLING AND PLACEMENT, Section 02230 - CONTAMINATED MATERIALS, and Section 11301 - SOIL VAPOR EXTRACTION SYSTEM, acceptably performed, shall be on a unit price basis. Measurement shall include the actual quantity of VMPs installed.

The unit price for each VMP shall include: the complete installation, survey, excavation, disposal of contaminated materials, all components, the concrete well box and cover, and all hose, pipe, fittings. This item also includes mobilization, and demobilization per the requirements of these Contract Documents.

**B. Payment**

The Contractor shall be paid for the actual quantity of VMPs installed, including all appurtenances as outlined above, at the unit price in the Contractor's bid. The unit price shall include all labor, equipment, and materials for installation and construction of the VMPs.

**UC-6 4-INCH DIAMETER BELOW GRADE SVE PIPE**

**A. Measurement**

The provision of all work and requirements for the installation of the 4-inch diameter SVE pipe as described in Section 02220 - EARTHWORK, Section 02230 - CONTAMINATED MATERIALS, Section 02500 - SITE RESTORATION, Section 02512 - BITUMINOUS PAVING, Section 02513 - CRUSHED STONE AND GRAVEL, and Section 15050 - PIPE, FITTINGS, VALVES AND OTHER ACCESSORIES, acceptably performed, shall be on a unit price basis. Measurement shall be the actual linear feet of trench installed as measured along the centerline and as determined by the engineer. Measurement will not be based on the length of pipe.

The unit price for this item shall include the complete installation of all pipe and appurtenances including: sawcutting excavation, disposal of contaminated materials, all pipe, fittings, and appurtenances to connect the piping and restoration of site conditions. This item also includes

mobilization, equipment decontamination, and demobilization per the requirements of these Contract Documents.

**B. Payment**

The Contractor shall be paid for the actual linear feet of trench installed, including all appurtenances as outlined above, at the unit price in the Contractor's bid. The unit price shall include all labor, equipment, and materials for installation and construction of the pipe.

**UC-7 4-INCH DIAMETER ABOVE GRADE SVE PIPE**

**A. Measurement**

The provision of all work and requirements for the installation of the 4-inch diameter SVE pipe as described in Section 15050 - PIPE, FITTINGS, VALVES AND OTHER ACCESSORIES, acceptably performed, shall be on a unit price basis. Measurement shall be the actual linear feet of pipe installed as measured along the centerline and as determined by the engineer.

The unit price for this item shall include the complete installation of all pipe and appurtenances including: all pipe, fittings, and appurtenances to connect the piping and restoration of site conditions. This item also includes mobilization, equipment decontamination, and demobilization per the requirements of these Contract Documents.

The unit price for the pipe shall take into account the fact that some pipe may need to penetrate existing walls. The locations of the pipe may vary from that depicted in the Contract Drawings.

**B. Payment**

The Contractor shall be paid for the actual linear feet of pipe installed, including all appurtenances as outlined above, at the unit price in the Contractor's bid. The unit price shall include all labor, equipment, and materials for installation and construction of the pipe.

**UC-8 6-INCH DIAMETER ABOVE GRADE SVE PIPE**

**A. Measurement**

The provision of all work and requirements for the installation of the 6-inch diameter SVE pipe as described in Section 15050 - PIPE, FITTINGS, VALVES AND OTHER ACCESSORIES, acceptably performed, shall be on a unit price basis. Measurement shall be the actual linear feet of pipe installed as measured along the centerline and as determined by the Engineer.

The unit price for this item shall include the complete installation of all pipe and appurtenances including: all pipe, fittings, and appurtenances to connect the piping and restoration of site conditions. This item also includes mobilization, equipment decontamination, and demobilization per the requirements of these Contract Documents.

The unit price for the pipe laterals shall take into account the fact that some pipe may need to penetrate existing walls. The locations of the pipe may vary from that depicted in the Contract Drawings.

**B. Payment**

The Contractor shall be paid for the actual linear feet of pipe installed, including all appurtenances as outlined above, at the unit price in the Contractor's bid. The unit price shall include all labor, equipment, and materials for installation and construction of the laterals.

**UC-9 8-INCH DIAMETER ABOVE GRADE SVE PIPE**

**A. Measurement**

The provision of all work and requirements for the installation of the 8-inch diameter SVE pipe as described in Section 15050 – PIPE, FITTINGS, VALVES AND OTHER ACCESSORIES, acceptably performed, shall be on a unit price basis. Measurement shall be the actual linear feet of pipe installed as measured along the centerline and as determined by the Engineer.

The unit price for this item shall include the complete installation of all pipe and appurtenances including: all pipe, fittings, and appurtenances to connect the piping and restoration of site conditions. This item also includes mobilization, equipment decontamination, and demobilization per the requirements of these Contract Documents.

The unit price for the pipe laterals shall take into account the fact that some pipe may need to penetrate existing walls. The locations of the pipe may vary from that depicted in the Contract Drawings.

**B. Payment**

The Contractor shall be paid for the actual linear feet of pipe installed, including all appurtenances as outlined above, at the unit price in the Contractor's bid. The unit price shall include all labor, equipment, and materials for installation and construction of the laterals.

## **UC-10 SOIL VAPOR EXTRACTION (SVE) SYSTEM STEADY-STATE OPERATION FOLLOWING START-UP**

### **A. Measurement**

The provision of all work and requirements as described in Section 11301 SOIL VAPOR EXTRACTION SYSTEM, acceptably performed, shall be on a unit price basis.

The unit price per month for the operations and maintenance of the SVE system (including wells, piping, and all system components) and the subsurface depressurization system for up to six months after start-up is satisfactorily completed shall include the furnishing of all labor, equipment and materials necessary for the SVE system to be fully operational and to meet the performance requirements. The unit price per month shall also include all system monitoring, all utility costs during the operation of the system, all Health and Safety provisions in accordance with the Contractor's approved Health and Safety Plan, all disposal costs, and costs for all other O&M requirements specified. The unit price per month shall also include all costs for providing and maintaining the required site facilities and services in accordance with Section 01050 SITE FACILITIES AND SERVICES (see LS-3). The unit price shall not include the cost of sampling and analysis which is included in items UC-23, UC-25, and UC-27.

### **B. Payment**

The Contractor shall be paid the unit price per month for acceptable operation of the entire SVE system. A prorated reduction will be made if maintenance, operations, or reporting are considered by the Engineer to be unsatisfactory, unnecessary or unavailable during the period. Such a prorated reduction will be computed based on prices in the bid breakdown submitted by the Contractor, operating records, and as determined by the Engineer. The unit price for continuous system operation will be paid on a monthly basis, provided that all required reports for the period for which payment is requested have been submitted and approved by the Engineer, and the system performance objectives are being met.

## **UC-11 TEMPERATURE MONITORING POINT (TMP)**

### **A. Measurement**

The provision of all work for the installation of a temperature monitoring point as described in Section 02221 – WELL DRILLING AND PLACEMENT, Section 02230 – CONTAMINATED MATERIALS and Section 11302 – ELECTRICAL RESISTANCE HEATING SYSTEM, acceptably performed, shall be on a unit price basis. Measurement shall include the actual quantity of temperature monitoring points installed.

The unit price shall include: the complete installation of the temperature monitoring point, survey, excavation, disposal of contaminated materials, and all components. This item also includes mobilization, equipment decontamination, and demobilization per the requirements of these Contract Documents. Only components in the TMP are included in this item. Electrical components connecting the TMP to the ERH system are included in item LS- 13.



The unit price shall take into account the fact that the installed depths of temperature monitoring points and the depth of components, may vary from depicted in the Contract Drawings.

**B. Payment**

The Contractor shall be paid for the actual quantity of TMPs installed, including appurtenances outlined above, at the unit price in the Contractor's bid. The unit price shall include all labor, equipment and materials for installation and construction of the wells.

**UC-12 SHALLOW GROUNDWATER MONITORING WELL**

**A. Measurement**

The provision of all work and requirements for the installation of a monitoring well as described in Section 02221 - WELL DRILLING AND PLACEMENT and Section 02230 – CONTAMINATED MATERIALS, acceptably performed, shall be on a unit price basis. Measurement shall include the actual quantity of wells installed. Shallow wells are designated with an S, for example MW-101S.

The unit price for each well shall include: the complete installation and development of the wells, survey, excavation, disposal of contaminated materials, all well components, and the well casing and lock. This item also includes mobilization, equipment decontamination, treatment and handling of development water, and demobilization per the requirements of these Contract Documents.

The unit price for the well shall take into account the fact that the installed depths of the wells, and the depth of the well components, may vary from that depicted in the Contract Drawings. The unit price for the wells shall take into account the variation in depth and construction for the wells across the site.

**B. Payment**

The Contractor shall be paid for the actual quantity of monitoring wells installed, including all appurtenances as outlined above, at the unit price in the Contractor's bid. The unit price shall include all labor, equipment, and materials for installation and construction of the wells.

**UC-13 INTERMEDIATE GROUNDWATER MONITORING WELL**

**A. Measurement**

The provision of all work and requirements for the installation of a monitoring well as described in Section 02221 - WELL DRILLING AND PLACEMENT and Section 02230 – CONTAMINATED MATERIALS, acceptably performed, shall be on a unit price basis. Measurement shall include the actual quantity of wells installed. Intermediate wells are designated with an I, for example MW-101I.

The unit price for each well shall include: the complete installation and development of the wells, survey, excavation, disposal of contaminated materials, all well components, and the well casing and lock. This item also includes mobilization, equipment decontamination, treatment and handling of development water, and demobilization per the requirements of these Contract Documents.

The unit price for the well shall take into account the fact that the installed depths of the wells, and the depth of the well components, may vary from that depicted in the Contract Drawings. The unit price for the wells shall take into account the variation in depth and construction for the wells across the site.

**B. Payment**

The Contractor shall be paid for the actual quantity of monitoring wells installed, including all appurtenances as outlined above, at the unit price in the Contractor's bid. The unit price shall include all labor, equipment, and materials for installation and construction of the wells.

**UC-14 DEEP GROUNDWATER MONITORING WELL INSTALLED TO CLAY LAYER**

The provision of all work and requirements for the installation of a monitoring well as described in Section 02221 - WELL DRILLING AND PLACEMENT and Section 02230 - CONTAMINATED MATERIALS, acceptably performed, shall be on a unit price basis. Measurement shall include the actual quantity of wells installed. Deep wells are designated with D, for example: MW-105D.

The unit price for each well shall include: the complete installation and development of the wells, survey, excavation, disposal of contaminated materials, all well components, and the well casing and lock. This item also includes mobilization, equipment decontamination, treatment and handling of development water, and demobilization per the requirements of these Contract Documents.

The unit price for the well shall take into account the fact that the installed depths of the wells, and the depth of the well components, may vary from that depicted in the Contract Drawings. The unit price for the wells shall take into account the variation in depth and construction for the wells across the site.

**B. Payment**

The Contractor shall be paid for the actual quantity of monitoring wells installed, including all appurtenances as outlined above, at the unit price in the Contractor's bid. The unit price shall include all labor, equipment, and materials for installation and construction of the wells.

**UC-15 ERH SYSTEM STEADY-STATE OPERATION PHASE ONE**

**A. Measurement**

The provision for all work and requirements as described in Section 11302 - ELECTRICAL RESISTANCE HEATING SYSTEM, acceptably performed, shall be on a unit price basis.

The unit price per week for the operation and maintenance of the ERH system (including all components) for up to ninety one (91) calendar days after Part A Substantial Completion shall include the furnishing of all labor, equipment, and materials necessary for the ERH system to fully operational to meet the performance requirements – except as otherwise specified below and as included in other bid items. The unit price shall include all utility costs (except electricity), all Health and Safety provisions in accordance with the Health and Safety Plan and Section 11302, all disposal costs, and costs for all other O&M requirements (except carbon replacement). The unit price per day shall also include all costs for providing and maintaining the required facilities in accordance with Section 01050 SITE FACILITIES AND SERVICES.

All costs for electricity, and carbon replacement and disposal are not included in UC-15. These costs shall be included in UC-16 and UC-18, respectively. Costs for sampling and analysis are not included in UC-15. These costs are included in UC-29, UC-31, UC-33 and UC-35.

**B. Payment**

The Contractor shall be paid the unit price per day for acceptable operation of the entire ERH system. A prorated reduction will be made if operations and maintenance or reporting are considered by the Engineer to be unsatisfactory, unnecessary or unavailable during the period. Such a prorated reduction will be computed based on prices in the bid breakdown submitted by the Contractor, operating records, and as determined by the Engineer. The unit price for continuous system operation will be paid on a daily basis, provided all required reports for the period for which payment is requested have been submitted and approved by the Engineer, the system performance objectives are met, and all other required operating conditions are being met.

Furthermore, the Contractor will be penalized for not meeting the minimum power requirements specified in Section 11302. Penalties shall be administered by the Engineer according to the following schedule:

<b>Percent Below Minimum Power Requirement</b>	<b>Penalty as Reduction of Daily Unit Cost Percent</b>
1	2
2	4
3	7
4	11
5	16
6	22

## **UC-16 ELECTRICITY ALLOWANCE FOR ERH STEADY-STATE OPERATION PHASE ONE**

### **A. Measurement**

Measurement shall be per Kilowatt hour as determined from a utility installed meter and as verified by the utility's bill. The electric meter reading shall be collected immediately prior to the startup of the ERH system and upon the completion of the ERH startup (Part A Substantial Completion, see Section VI, Attachment A). This is the only period of electrical use to be paid under this allowance item. The electric meter reading for the ERH system shall also be recorded at approximately the same time every day on a daily basis.

An amount for the utility allowance has been included on the bid form.

### **B. Payment**

The Department shall pay the actual cost to the Contractor from the utility company, only after submittal to the Department of an invoice from the utility company. Only costs for the operation of the ERH system, and only during the specified measurement period, will be reimbursed. In the event that the invoice from the utility company includes additional charges for electrical use outside the specified measurement period, the amount of the invoice to be reimbursed shall be determined by the Engineer on a pro-rated basis, based on the daily readings collected from the meter at the site. No overhead or handling fees will be paid for this item.

## **UC-17 ERH SYSTEM STANDBY PHASE**

### **A. Measurement**

ERH system standby shall commence when the Contractor receives and acknowledges written authorization from the Engineer to shut down the system and shall end when the Contractor receives and acknowledges written authorization from the Engineer to remove or restart the system. During this period the Contractor shall leave all ERH system components on site and maintain them as necessary for system restart. Also during this phase the Contractor shall maintain all site facilities and services as outlined in Section 01050, including security, maintenance and site facilities.

### **B. Payment**

The Contractor shall be paid in the Unit Price amount for each day of ERH system standby as calculated in accordance with the Measurement paragraph A above.

## **UC-18 AQUEOUS PHASE CARBON FOR START-UP AND STEADY-STATE OPERATION PHASE ONE**

### **A. Measurement**

All work for the provision of aqueous phase carbon as described in Section 11302 – ELECTRICAL RESISTANCE HEATING SYSTEM, shall be on a unit price basis. The unit price shall include the cost for loading new carbon into the units, removal and disposal of the spent carbon, sampling, transportation, and all additional fees and costs.

### **B. Payment**

The Contractor shall be paid for the actual pounds of carbon replaced into the carbon vessels. The unit price shall include all labor, equipment, and materials for replacement and disposal of the carbon.

## **UC-19 FENCING**

### **A. Measurement**

The provision of all work required to install a fence surrounding the work area and as described in Section 01040 - 1.6 FENCING, and as shown on the Contract Drawings acceptably performed, shall be in a unit price basis. Measurement shall be the actual linear feet of fence installed as determined by the Engineer. This item shall include all survey, excavation, backfill, disposal, materials, and other work required to install the fence, including the provision of double-gates and man-gates.

### **B. Payment**

The Contractor shall be paid for the actual linear feet of fence installed, including gates, at the unit price per linear foot in the Contractor's Bid. The unit price shall include all labor, equipment, and materials for construction of the fence.

## **UC-20 HEALTH AND SAFETY**

### **A. Measurement**

3. Measurement for health and safety provisions described in Section 01030 will include the preparation of a Health and Safety Plan (HASP), provision of a Health and Safety Coordinator (HSC), a Safety Officer (SO) at the Project Site, the implementation of the HASP on-site including provision and disposal of personal protective equipment and other related disposable materials, decontamination of personnel and equipment, and performance of documentation monitoring. All daily maintenance costs for health and safety are part of this Bid Item including everything required in the HASP.
4. Measurement for payment of this Bid Item shall begin when the exclusion zone is established, shall be considered completed when there is no longer an exclusion zone. This

bid item shall only be for those days when intrusive work occurs within the exclusion zone, and only for those employees working in the zone as determined by the Engineer. When intrusive work occurs only for a portion of a day, it will be recorded as such by the Engineer. A reduction in the payment for this Item will occur for each day the Contractor fails to adhere (in the opinion of the Engineer) to the requirements of the HASP.

**B. Payment**

Contractor shall be paid in the Unit Price amount for each employee work day that specified health and safety provisions have been provided, as calculated in accordance with Measurement paragraph A (2) above.

**UC-21 POST REMEDIATION SOIL SAMPLING**

**A. Measurement**

The Contractor shall be paid on a unit price basis to collect, ship, and analyze soil samples. This item includes all labor, equipment, sample containers, mobilization, demobilization, health and safety provisions and submittal of a complete report. Up to three sampling events shall be required.

**B. Payment**

The Contractor shall be paid for actual quantity of samples analyzed at the unit price in Contractor's bid.

**UC-22 SVE EXTRACTION WELL SAMPLING DURING STARTUP**

**A. Measurement**

The Contractor shall be paid on a unit price basis to collect, ship, and analyze extraction well soil gas samples during startup in accordance with Section 11301. This item includes all labor, equipment, sample containers, mobilization, demobilization, health and safety provisions and submittal of a complete report.

**B. Payment**

The Contractor shall be paid for the actual quantity of samples analyzed at the unit price in the Contractor's bid.

**UC-23 SVE EXTRACTION WELL SAMPLING DURING OPERATION**

**A. Measurement**

The Contractor shall be paid on a unit price basis to collect, ship, and analyze extraction well soil gas samples during operation in accordance with Section 11301. This item includes all labor,

equipment, sample containers, mobilization, demobilization, health and safety provisions and submittal of a complete report.

**B. Payment**

The Contractor shall be paid for the actual quantity of samples analyzed at the unit price in the Contractor's bid.

**UC-24 SVE CATALYTIC OXIDIZER INLET SAMPLING DURING STARTUP**

**A. Measurement**

The Contractor shall be paid on a unit price basis to collect, ship, and analyze catalytic oxidizer inlet samples during startup in accordance with Section 11301. This item includes all labor, equipment, sample containers, mobilization, demobilization, health and safety provisions and submittal of a complete report.

**B. Payment**

The Contractor shall be paid for the actual quantity of samples analyzed at the unit price in the Contractor's bid.

**UC-25 SVE CATALYTIC OXIDIZER INLET SAMPLING DURING OPERATION**

**A. Measurement**

The Contractor shall be paid on a unit price basis to collect, ship, and analyze catalytic oxidizer inlet samples during operation in accordance with Section 11301. This item includes all labor, equipment, sample containers, mobilization, demobilization, health and safety provisions and submittal of a complete report.

**B. Payment**

The Contractor shall be paid for the actual quantity of samples analyzed at the unit price in the Contractor's bid.

**UC-26 SVE CATALYTIC OXIDIZER OUTLET SAMPLING DURING STARTUP**

**A. Measurement**

The Contractor shall be paid on a unit price basis to collect, ship, and analyze catalytic oxidizer samples during operation in accordance with Section 11301. This item includes all labor, equipment, sample containers, mobilization, demobilization, health and safety provisions and submittal of a complete report.

**B. Payment**

The Contractor shall be paid for the actual quantity of samples analyzed at the unit price in the Contractor's bid.

**UC-27 SVE CATALYTIC OXIDIZER OUTLET SAMPLING DURING OPERATION**

**A. Measurement**

The Contractor shall be paid on a unit price basis to collect, ship, and analyze catalytic oxidizer outlet samples during operation in accordance with Section 11301. This item includes all labor, equipment, sample containers, mobilization, demobilization, health and safety provisions and submittal of a complete report.

**B. Payment**

The Contractor shall be paid for the actual quantity of samples analyzed at the unit price in the Contractor's bid.

**UC-28 ERH CONDENSED VAPOR SAMPLING DURING STARTUP**

**A. Measurement**

The Contractor shall be paid on a unit price basis to collect, ship, and analyze condensed vapor samples during startup in accordance with Section 11302. The sample location shall be as shown on Drawing. This item includes all labor, equipment, sample containers, mobilization, demobilization, health and safety provisions and submittal of a complete report.

**B. Payment**

The Contractor shall be paid for the actual quantity of samples analyzed at the unit price in the Contractor's bid.

**UC-29 ERH CONDENSED VAPOR SAMPLING DURING STEADY-STATE OPERATION  
PHASE-ONE**

**A. Measurement**

The Contractor shall be paid on a unit price basis to collect, ship, and analyze condensed vapor samples during operation in accordance with Section 11302. The sample location shall be as shown on Drawing 8. This item includes all labor, equipment, sample containers, mobilization, demobilization, health and safety provisions and submittal of a complete report.



**B. Payment**

The Contractor shall be paid for the actual quantity of samples analyzed at the unit price in the Contractor's bid.

**UC-30 ERH CONDENSATE SAMPLING DURING STARTUP**

**A. Measurement**

The Contractor shall be paid on a unit price basis to collect, ship, and analyze condensate samples during startup in accordance with Section 11302. The sample locations shall be as shown on Drawing 8. This item includes all labor, equipment, sample containers, mobilization, demobilization, health and safety provisions and submittal of a complete report.

**B. Payment**

The Contractor shall be paid for the actual quantity of samples analyzed at the unit price in the Contractor's bid.

**UC-31 ERH CONDENSATE SAMPLING DURING STEADY-STATE OPERATION PHASE ONE**

**A. Measurement**

The Contractor shall be paid on a unit price basis to collect, ship, and analyze condensate samples during operation in accordance with Section 11302. The sample locations shall be as shown on Drawing 8. This item includes all labor, equipment, sample containers, mobilization, demobilization, health and safety provisions and submittal of a complete report.

**B. Payment**

The Contractor shall be paid for the actual quantity of samples analyzed at the unit price in the Contractor's bid.

**UC-32 ERH DISCHARGE SAMPLING DURING STARTUP**

**A. Measurement**

The Contractor shall be paid on a unit price basis to collect, ship, and analyze discharge samples during startup in accordance with Section 11302. The sample locations shall be as shown on Drawing 8. This item includes all labor, equipment, sample containers, mobilization, demobilization, health and safety provisions and submittal of a complete report.

**B. Payment**

The Contractor shall be paid for the actual quantity of samples analyzed at the unit price in the Contractor's bid.

**UC-33 ERH DISCHARGE SAMPLING DURING STEADY-STATE OPERATION PHASE ONE**

**A. Measurement**

The Contractor shall be paid on a unit price basis to collect, ship, and analyze discharge samples during operation in accordance with Section 11302. The sample locations shall be as shown on Drawing 8. This item includes all labor, equipment, sample containers, mobilization, demobilization, health and safety provisions and submittal of a complete report.

**B. Payment**

The Contractor shall be paid for the actual quantity of samples analyzed at the unit price in the Contractor's bid.

**UC-34 ERH CATALYTIC OXIDIZER OUTLET SAMPLING DURING STARTUP**

**A. Measurement**

The Contractor shall be paid on a unit price basis to collect, ship, and analyze catalytic oxidizer outlet gas samples during startup in accordance with Section 11302. The sample locations shall be as shown on Drawing 8. This item includes all labor, equipment, sample containers, mobilization, demobilization, health and safety provisions and submittal of a complete report.

**B. Payment**

The Contractor shall be paid for the actual quantity of samples analyzed at the unit price in the Contractor's bid.

**UC-35 ERH CATALYTIC OXIDIZER OUTLET SAMPLING DURING STEADY-STATE OPERATION PHASE ONE**

**A. Measurement**

The Contractor shall be paid on a unit price basis to collect, ship, and analyze catalytic oxidizer outlet samples during operation in accordance with Section 11302. The sample locations shall be as shown on Drawing 8. This item includes all labor, equipment, sample containers, mobilization, demobilization, health and safety provisions and submittal of a complete report.

**B. Payment**

The Contractor shall be paid for the actual quantity of samples analyzed at the unit price in the Contractor's bid.

**UC-36 GROUNDWATER SAMPLING**

**A. Measurement**

The Contractor shall be paid on a unit price to collect, ship, and analyze groundwater samples in accordance with Section 11302. This item includes all labor, equipment, sample containers, mobilization, demobilization, health and safety provisions and submittal of a complete report.

**B. Payment**

The Contractor shall be paid for the actual quantity of samples analyzed at the unit price in the Contractors bid.

**UC-37 SOIL BORINGS**

**A. Measurement**

The provision of all work and requirements for the installation of a soil boring as described in Section 02221- WELL DRILLING AND PLACEMENT and Section 02230-CONTAMINATED MATERIALS, acceptably performed, shall be on a unit price basis. Measurement shall include the actual quantity of borings installed.

The item shall include mobilization, equipment decontamination, demobilization, material disposal, grouting, and restoration per the requirements of these Contract Documents.

The unit price shall take into account that the installed depths may vary.

**B. Payment**

The Contractor shall be paid for the actual quantity of borings installed at the unit price in the Contractor's bid. The unit price shall include all labor, equipment, and materials for installation and construction of the wells.

**UC-38 ERH SYSTEM STEADY-STATE OPERATION PHASE TWO**

**A. Measurement**

The provision for all work and requirements as described in Section 11302 – ELECTRICAL RESISTANCE HEATING SYSTEM, acceptably performed, shall be on a unit price basis.

The unit price per day for the operation and maintenance of the ERH system (including all components) for up to sixty-three (63) calendar days after ERH system restart (i.e., after achievement of the minimum temperatures presented in Table 11302-1 and meeting all performance objectives in Section 11302, 1.3) shall include the furnishing of all labor, equipment, and materials necessary for the ERH system to fully operational to meet the performance requirements – except as otherwise specified below and as included in other bid items. The unit price shall include all utility costs (except electricity), all Health and Safety provisions in accordance with the Health and Safety Plan, all disposal costs, reporting and report preparation, and costs for all other O&M requirements (except carbon replacement). The unit price per day shall also include all costs for providing and maintaining the required facilities in accordance with Section 01050 SITE FACILITIES AND SERVICES.

All costs for electricity, and carbon replacement and disposal are not included in UC-38. These costs shall be included in UC-39 and UC-40, respectively. Costs for sampling and analysis are not included in UC-38. These costs are included in UC-42, UC-44, UC-46 and UC-48.

**B. Payment**

The Contractor shall be paid the unit price per day for acceptable operation of the entire ERH system. A prorated reduction will be made if operations and maintenance or reporting are considered by the Engineer to be unsatisfactory, unnecessary or unavailable during the period. Such a prorated reduction will be computed based on prices in the bid breakdown submitted by the Contractor, operating records, and as determined by the Engineer. The unit price for continuous system operation will be paid on a daily basis, provided all required reports for the period for which payment is requested have been submitted and approved by the Engineer, the system performance objectives are met, and all other required operating conditions are being met.

Furthermore, the Contractor will be penalized for not meeting the minimum power requirements specified in Section 11302. Penalties shall be administered by the Engineer according to the following schedule:

<b>Percent Below Minimum Power Requirement</b>	<b>Penalty as Reduction of Daily Unit Cost Percent</b>
1	2
2	4
3	7
4	11
5	16
6	22

## **UC-39 ELECTRICITY ALLOWANCE FOR ERH STEADY-STATE OPERATION-PHASE TWO**

### **A. Measurement**

Measurement shall be per Kilowatt hour as determined from a utility installed meter and as verified by the utility's bill. The electric meter reading shall be collected immediately prior to the restart of the ERH system and upon the completion of the ERH restart as determined by the Engineer. This is the only period of electrical use to be paid under this allowance item. The electric meter reading for the ERH system shall also be recorded at approximately the same time every day on a daily basis.

An amount for the utility allowance has been included on the bid form.

### **B. Payment**

The Department shall pay the actual cost to the Contractor from the utility company, only after submittal to the Department of an invoice from the utility company. Only costs for the operation of the ERH system, and only during the specified measurement period, will be reimbursed. In the event that the invoice from the utility company includes additional charges for electrical use outside the specified measurement period, the amount of the invoice to be reimbursed shall be determined by the Engineer on a pro-rated basis, based on the daily readings collected from the meter at the site. No overhead or handling fees will be paid for this item.

## **UC-40 AQUEOUS PHASE CARBON RESTART AND STEADY STATE OPERATION PHASE TWO**

### **A. Measurement**

All work for the provision of aqueous phase carbon as described in Section 11302 – ELECTRICAL RESISTANCE HEATING SYSTEM, shall be on a unit price basis. The unit price shall include the cost for loading new carbon into the units, removal and disposal of the spent carbon, sampling, transportation, and all additional fees and costs.

### **B. Payment**

The Contractor shall be paid for the actual pounds of carbon replaced into the carbon vessels. The unit price shall include all labor, equipment, and materials for replacement and disposal of the carbon.

## **UC-41 ERH CONDENSED VAPOR SAMPLING DURING RESTART**

### **A. Measurement**

The Contractor shall be paid on a unit price basis to collect, ship, and analyze condensed vapor samples during restart in accordance with Section 11302. The sample location shall be as shown on

Drawing. This item includes all labor, equipment, sample containers, mobilization, demobilization, health and safety provisions and submittal of a complete report.

**B. Payment**

The Contractor shall be paid for the actual quantity of samples analyzed at the unit price in the Contractor's bid.

**UC-42 ERH CONDENSED VAPOR SAMPLING DURING STEADY STATE OPERATION PHASE-TWO**

**A. Measurement**

The Contractor shall be paid on a unit price basis to collect, ship, and analyze condensed vapor samples during operation in accordance with Section 11302. The sample location shall be as shown on Drawing 8. This item includes all labor, equipment, sample containers, mobilization, demobilization, health and safety provisions and submittal of a complete report.

**B. Payment**

The Contractor shall be paid for the actual quantity of samples analyzed at the unit price in the Contractor's bid.

**UC-43 ERH CONDENSATE SAMPLING DURING RESTART**

**A. Measurement**

The Contractor shall be paid on a unit price basis to collect, ship, and analyze condensate samples during restart in accordance with Section 11302. The sample locations shall be as shown on Drawing 8. This item includes all labor, equipment, sample containers, mobilization, demobilization, health and safety provisions and submittal of a complete report.

**B. Payment**

The Contractor shall be paid for the actual quantity of samples analyzed at the unit price in the Contractor's bid.

**UC-44 ERH CONDENSATE SAMPLING DURING STEADY STATE OPERATION PHASE TWO**

**A. Measurement**

The Contractor shall be paid on a unit price basis to collect, ship, and analyze condensate samples during operation in accordance with Section 11302. The sample locations shall be as shown on Drawing 8. This item includes all labor, equipment, sample containers, mobilization, demobilization, health and safety provisions and submittal of a complete report.

**B. Payment**

The Contractor shall be paid for the actual quantity of samples analyzed at the unit price in the Contractor's bid.

**UC-45 ERH DISCHARGE SAMPLING DURING RESTART**

**A. Measurement**

The Contractor shall be paid on a unit price basis to collect, ship, and analyze discharge samples during restart in accordance with Section 11302. The sample locations shall be as shown on Drawing 8. This item includes all labor, equipment, sample containers, mobilization, demobilization, health and safety provisions and submittal of a complete report.

**B. Payment**

The Contractor shall be paid for the actual quantity of samples analyzed at the unit price in the Contractor's bid.

**UC-46 ERH DISCHARGE SAMPLING DURING STEADY STATE OPERATION PHASE TWO**

**A. Measurement**

The Contractor shall be paid on a unit price basis to collect, ship, and analyze discharge samples during operation in accordance with Section 11302. The sample locations shall be as shown on Drawing 8. This item includes all labor, equipment, sample containers, mobilization, demobilization, health and safety provisions and submittal of a complete report.

**B. Payment**

The Contractor shall be paid for the actual quantity of samples analyzed at the unit price in the Contractor's bid.

**UC-47 ERH CATALYTIC OXIDIZER OUTLET SAMPLING DURING RESTART**

**A. Measurement**

The Contractor shall be paid on a unit price basis to collect, ship, and analyze catalytic oxidizer outlet gas samples during restart in accordance with Section 11302. The sample locations shall be as shown on Drawing 8. This item includes all labor, equipment, sample containers, mobilization, demobilization, health and safety provisions and submittal of a complete report.

**B. Payment**

The Contractor shall be paid for the actual quantity of samples analyzed at the unit price in the Contractor's bid.

**UC-48 ERH CATALYTIC OXIDIZER OUTLET SAMPLING DURING STEADY STATE OPERATION-PHASE TWO**

**A. Measurement**

The Contractor shall be paid on a unit price basis to collect, ship, and analyze catalytic oxidizer outlet samples during operation in accordance with Section 11302. The sample locations shall be as shown on Drawing 8. This item includes all labor, equipment, sample containers, mobilization, demobilization, health and safety provisions and submittal of a complete report.

**B. Payment**

The Contractor shall be paid for the actual quantity of samples analyzed at the unit price in the Contractor's bid.

**UC-49 SVE CATALYTIC OXIDIZER OUTLET HCl SAMPLING DURING STARTUP**

**A. Measurement**

The Contractor shall be paid on a unit price basis to collect, ship, and analyze catalytic oxidizer outlet HCl samples during startup in accordance with Section 11301. This item includes all labor, equipment, sample containers, mobilization, demobilization, health and safety provisions and submittal of a complete report.

**B. Payment**

The Contractor shall be paid for the actual quantity of samples analyzed at the unit price in the Contractor's bid.

**UC-50 SVE CATALYTIC OXIDIZER OUTLET HCl SAMPLING DURING OPERATION**

**A. Measurement**

The Contractor shall be paid on a unit price basis to collect, ship, and analyze catalytic oxidizer outlet HCl samples during operation in accordance with Section 11301. This item includes all labor, equipment, sample containers, mobilization, demobilization, health and safety provisions and submittal of a complete report.



**B. Payment**

The Contractor shall be paid for the actual quantity of samples analyzed at the unit price in the Contractor's bid.

**UC-51 ERH CATALYTIC OXIDIZER OUTLET HCl SAMPLING DURING STARTUP**

**A. Measurement**

The Contractor shall be paid on a unit price basis to collect, ship, and analyze catalytic oxidizer outlet HCl samples during startup in accordance with Section 11302. The sample locations shall be as shown on Drawing 8. This item includes all labor, equipment, sample containers, mobilization, demobilization, health and safety provisions and submittal of a complete report.

**B. Payment**

The Contractor shall be paid for the actual quantity of samples analyzed at the unit price in the Contractor's bid.

**UC-52 ERH CATALYTIC OXIDIZER OUTLET HCl SAMPLING DURING STEADY STATE OPERATION PHASE ONE**

**A. Measurement**

The Contractor shall be paid on a unit price basis to collect, ship, and analyze discharge HCl samples during operation in accordance with Section 11302. The sample locations shall be as shown on Drawing 8. This item includes all labor, equipment, sample containers, mobilization, demobilization, health and safety provisions and submittal of a complete report.

**B. Payment**

The Contractor shall be paid for the actual quantity of samples analyzed at the unit price in the Contractor's bid.

**UC-53 ERH CATALYTIC OXIDIZER OUTLET HCl SAMPLING DURING RESTART**

**A. Measurement**

The Contractor shall be paid on a unit price basis to collect, ship, and analyze catalytic oxidizer outlet HCl samples during restart in accordance with Section 11302. The sample locations shall be as shown on Drawing 8. This item includes all labor, equipment, sample containers, mobilization, demobilization, health and safety provisions and submittal of a complete report.

**B. Payment**

The Contractor shall be paid for the actual quantity of samples analyzed at the unit price in the Contractor's bid.

**UC-54 ERH CATALYTIC OXIDIZER OUTLET HCl SAMPLING DURING STEADY STATE OPERATION PHASE TWO**

**A. Measurement**

The Contractor shall be paid on a unit price basis to collect, ship, and analyze catalytic oxidizer outlet HCl samples during operation in accordance with Section 11302. The sample locations shall be as shown on Drawing 8. This item includes all labor, equipment, sample containers, mobilization, demobilization, health and safety provisions and submittal of a complete report.

**B. Payment**

The Contractor shall be paid for the actual quantity of samples analyzed at the unit price in the Contractor's bid.

## **LUMP SUM ITEMS**

### **LS-1 GENERAL**

#### **A. Measurement**

The provision of all work and requirements as described in Section 01010 GENERAL acceptably performed will be measured as a complete unit (lump sum). The Contractor shall submit a bid breakdown as required by Section III, Article 5.C for this bid item that shows the individual cost of providing the items required in Subsections 1.5 through 1.17 of Section 01010 GENERAL, and all other miscellaneous items not specified elsewhere but necessary for a complete and proper remediation of this site.

#### **B. Payment**

Seventy percent (70%) of the lump sum price for Bid Item LS-1, General, will be paid by the Department upon completion of mobilization at, and preparation of, the project site as determined by the Engineer. The remaining thirty percent (30%) of the lump sum price for Bid Item LS-1 will be paid upon Part D Substantial Completion (see Section VI, Attachment A). The total bid price for all work and requirements in Section 01010 GENERAL will be limited to a maximum of five percent (5%) of the total bid amount for the entire project.

### **LS-2 SITE PREPARATION**

#### **A. Measurement**

The provision of all work and requirements as described in Section 01040 SITE PREPARATION acceptably performed shall be measured as a complete unit (lump sum). The Contractor shall submit a breakdown as required by Section III, Article 5.C for this bid item that shows the individual cost of installing items required in Subsections 1.2 through 1.6 described in Section 01040 SITE PREPARATION, along with mobilization, demobilization and miscellaneous items not included elsewhere but necessary for a complete and proper remediation. The total bid price for all work and requirements in Section 01040 SITE PREPARATION will be limited to a maximum of five percent (5%) of the total bid amount for the entire project.

#### **B. Payment**

Seventy percent (70%) of the lump sum price for Bid Item LS-2, Site Preparation, will be paid by the Department upon completion of mobilization at, and preparation of, the project site as determined by the Engineer. The remaining thirty percent (30%) of the lump sum price for Bid Item LS-2 will be paid upon Part D Substantial Completion (see Section VI, Attachment A).

Payment for Pollution Liability Insurance (PLI) will be paid as a complete unit (lump sum) under payment Item LS-2 should the Department decide to take out a PLI policy for this project. Be aware, however, the cost for PLI shall not be included with the base bid for the project in accordance with Section V, page V-4 of the Contract Documents.

### **LS-3 SITE FACILITIES AND SERVICES**

#### **A. Measurement**

The provision of all work and requirements as described in Sections 01050 SITE FACILITIES AND SERVICES and 01051 SURVEY, acceptably performed, shall be measured as a complete unit (lump sum). The Contractor shall submit a breakdown as required by Section III, Article 5.C for this bid item that shows the individual cost of installing the items required in Subsections 1.2 through 1.7 as described in Section 01050 SITE FACILITIES AND SERVICES, along with survey and other miscellaneous items not included elsewhere but necessary for a complete and proper remediation. The total bid price for all work and requirements for Item LS-3 will be limited to a maximum of five percent (5%) of the total bid amount for the entire project.

#### **B. Payment**

Seventy percent (70%) of the lump sum price for Bid Item LS-3, Site Facilities and Services, will be paid by the Department upon completion of mobilization at, and preparation of, the project site as determined by the Engineer. The remaining thirty percent (30%) of the lump sum price for Bid Item LS-2 will be paid upon Part D Substantial Completion (see Section VI, Attachment A).

### **LS-4 SITE RESTORATION**

#### **A. Measurement**

All work items and requirements necessary for site restoration not specifically included in other items will be measured as a complete unit (lump sum). The Contractor shall submit a bid breakdown as required by Section III, Article 5.C for items included.

#### **B. Payment**

The Contractor shall be paid lump sum upon Part D Substantial Completion (see Section VI, Attachment A).

### **LS-5 SOIL VAPOR EXTRACTION SYSTEM INSTALLATION AND STARTUP OPERATION**

#### **A. Measurement**

The installation of a completely operable soil vapor extraction (SVE) system acceptably performed in accordance with the Contract Drawings and as described in Section 11301 SOIL VAPOR EXTRACTION SYSTEM, and Section 15050 PIPING, VALVES, FITTINGS AND OTHER ACCESSORIES, shall be measured as a complete unit (lump sum). The SVE system is defined as the portion of construction, beginning at the system trailer through to the end of the system. All treatment system housing including heating and ventilation are also included in this pay item. The Contractor shall submit a bid breakdown as required by Section III, Article 5.C for this bid item that shows the individual cost of installation for each system component identified in Section 11301

Subsection 1.7, as well as a breakdown for all major items identified in Sections 11302 and 15050. Installation shall include the design, furnishing, construction and connecting of all equipment, piping, instrumentation, (including portable instruments) controls, and all other appurtenances necessary for a fully operational system, capable of meeting the performance requirements. This bid item shall not include any electrical work by the Contractor.

Bid Item LS-5 also includes costs for operation and monitoring during construction, during the Startup and Performance Testing phase, and until the date of Part C Substantial Completion. This item does not include routine system operation as identified in Section 11301, Paragraph 1.9.C which is included in UC-10. This cost shall include all handling and treatment of all contaminated water, and all monitoring, required during start-up of the system during the period covered by this bid item. The lump sum price shall also include all utility costs during the startup and installation of the SVE system. The item does not include sampling and analysis which is included in UC-22, UC-24, and UC-26.

**B. Payment**

The Contractor shall be paid lump sum to furnish and install a complete and acceptable SVE system per the following schedule. A prorated reduction will be made if maintenance, operations, or site services are considered by the Engineer to be unsatisfactory, unnecessary, or unavailable during the period. Such a prorated reduction will be computed based on prices in the bid breakdown submitted by the Contractor and operating records.

- 5% of the lump sum upon submittal and approval of all required shop drawings for the SVE system
- 45% of the lump sum upon installation of the SVE system
- 50% of the lump sum upon Substantial Completion of Part C (see Section VI, Attachment A).

**LS-6 ELECTRICAL RESISTANCE HEATING SYSTEM**

**A. Measurement**

Prior to installation the Contractor shall decommission all structures in the ERH area as described in Section 02222 DECOMMISSIONING SUBSURFACE STRUCTURES. The installation of a completely operable electrical resistance heating (ERH) system acceptably performed in accordance with the Contract Drawings and described in Section 11302 ELECTRICAL RESISTANCE HEATING SYSTEM, and Section 15050 PIPING, VALVES, FITTINGS AND OTHER ACCESSORIES. All work shall be measured as a complete unit (lump sum). The ERH system is defined to begin with inlet flange of the inlet separator through the end of the system at the carbon adsorbers. This bid item does not include electrode/vapor recovery wells, temperature monitoring points, piping connecting the electrode/vapor recovery wells to the system, electrical work, or the discharge pipe to the sewer. The Contractor shall submit a bid breakdown as required by Section III, Article 5.C for this bid item that shows the individual cost of installation for items identified in

Section 11302. Installation shall include the design, furnishing, construction and connecting all equipment, piping instrumentation, controls and all other appurtenances necessary for a fully operational system, capable of meeting the performance requirements.

**B. Payment**

The Contractor shall be paid lump sum to furnish and install the complete and acceptable ERH system per the following schedule.

- 5% lump sum upon submittal and approval of all required shop drawings for the ERH system
- 45% of the lump sum upon installation of the ERH system
- 50% of lump sum upon Substantial Completion of Part A (see Section VI, Attachment A).

**LS-7 ELECTRODE/VAPOR RECOVERY WELL INSTALLATION**

**A. Measurement**

The provision of all work for installation of ERH/Vapor Recovery Wells as described in Section 02221 - WELL DRILLING AND PLACEMENT, Section 02230 - CONTAMINATED MATERIALS and Section 11302 - ELECTRICAL RESISTANCE HEATING SYSTEM, shall be measured as a complete unit (lump sum).

The unit price shall include: the complete installation of the electrode/vapor recovery wells, survey, excavation, disposal of contaminated materials, and all components. This item also includes mobilization, equipment decontamination, and demobilization per the requirements of these Contract Documents. Only components in the well or well head are included in this item. Piping and electrical components connecting the electrode/vapor recovery wells to the ERH system are included in Items LS-8 and LS-13, respectively.

**B. Payment**

The Contractor shall be paid a lump sum to furnish and install the complete and acceptable ERH piping network per the following schedule:

- 5% lump sum upon submittal and approval of shop drawings for the electrode/vapor recovery wells.
- 45% of the lump sum upon installation of all electrode/vapor recovery wells.
- 50% of lump sum upon substantial completion of Part A (see Section VI, Attachment A).

## **LS-8 ELECTRICAL RESISTANCE HEATING PIPING**

### **A. Measurement**

The provision of all work and requirements for the installation of ERH piping as described in Section 15050 – PIPE, FITTINGS, VALVES, AND OTHER ACCESSORIES shall be measured as a complete unit (lump sum). This item includes all pipe connecting the ERH electrode/vapor recovery wells to the ERH system. It includes the complete installation of all pipe, fittings, and appurtenances to connect the piping.

The Contractor shall submit a bid breakdown as required by Section III, Article 5.C for this item identifying the cost of material and labor.

### **B. Payment**

The Contractor shall be paid lump sum to furnish and install the complete and acceptable ERH piping network per the following schedule.

- 5% lump sum upon submittal and approval of all required shop drawings for the ERH piping.
- 45% of the lump sum upon installation of the piping.
- 50% of lump sum upon Substantial Completion of Part A (see Section VI, Attachment A).

## **LS-9 ELECTRICAL RESISTANCE HEATING START UP**

### **A. Measurement**

The provision of all work and requirements for ERH system start-up as described in Section 11302 – ELECTRICAL RESISTANCE HEATING SYSTEM shall be measured as a complete unit (lump sum). This includes all labor, materials, and utilities, including electricity, as required to meet the temperature requirements described in Section 11302. This item does not include sampling and analysis which are included in items UC-28, UC-30, UC-32, and UC-34.

### **B. Payment**

The Contractor shall be paid lump sum to complete ERH start-up per the following schedule. A prorated reduction will be made if maintenance, operations, or site services are considered by the Engineer to be unsatisfactory, unnecessary, or unavailable during the period. Such a prorated reduction will be computed based on prices in the bid breakdown submitted by the Contractor and operating records.

- 5% lump sum upon submittal and approval of the ERH start-up plan.
- 95% of lump sum upon Substantial Completion of Part A (see Section VI, Attachment A).

## **LS-10 ELECTRICAL RESISTANCE HEATING RESTART**

### **A. Measurement**

The provision of all work and requirements of ERH system restart as described in Section 11302 – ELECTRICAL RESISTANCE HEATING SYSTEM shall be measured as a complete unit (lump sum). This includes all labor, materials, and utilities, including electricity, as required to meet the temperature requirements described in Section 11302. This item does not include sampling and analysis which is included in items , UC-42 , UC-44 , UC-46 and UC-48.

### **B. Payment**

The Contractor shall be paid lump sum upon Substantial Completion of Part B (see Section VI, Attachment A). A prorated reduction will be made if maintenance, operations, or site services are considered by the Engineer to be unsatisfactory, unnecessary, or unavailable during the period. Such prorated reduction will be computed based on prices in the bid breakdown submitted by the Contractor and operating records.

## **LS-11 DECOMMISSION ELECTRICAL RESISTANCE HEATING SYSTEM**

### **A. Measurement**

Decommissioning of the ERH system acceptably performed in accordance with Section 02222 - DECOMMISSIONING SUBSURFACE STRUCTURES and Section 11302 – ELECTRICAL RESISTANCE HEATING SYSTEM shall be measured as a complete unit (lump sum). This item includes removal of all equipment and above surface structures (including fencing), and proper closure of subsurface structures.

### **B. Payment**

The Contractor shall be paid lump sum upon Substantial Completion of Part B (see Section VI, Attachment A).

## **LS-12 SEWER DISCHARGE CONNECTION**

### **A. Measurement**

The provision of all work for the construction of the gravity discharge line from the ERH system to the existing sanitary manhole located on 180<sup>th</sup> Street, as shown on the Contract Drawings, acceptably performed, shall be on a lump sum basis. The item includes all excavation, backfill, groundwater handling & disposal, backfill materials, piping, testing, connections to manholes, repairs to manholes, permitting, etc. This item shall also include work to sawcut and repair the street, including traffic controls and other items required for the complete performance of the work.



**B. Payment**

The Contractor shall be paid a lump sum upon Substantial Completion of Part A (see Section VI, Attachment A). The lump sum price shall include all labor, equipment, and materials for construction of the groundwater discharge line.

**LS-13 ELECTRICAL**

**A. Measurement**

The provision of all electrical work and requirements described in Section 16010 ELECTRICAL and necessary for the ERH and SVE systems and all appurtenances to be fully operational shall be measured as a complete unit (lump sum). Only work by the Contractor and/or his subcontractors shall be included under this item. This item shall not include any monthly utility bills, nor shall it include any costs to the Contractor for the provision and installation of electrical service by the utility.

**B. Payment**

Payment for Bid Item LS-13 shall be the lump sum Bid price upon installation and start-up of all electrical components associated with the operation of the systems as follows:

- 5% of the lump sum upon submittal and approval of all required shop drawings for the electrical system
- 45% of the lump sum upon installation of the electrical system
- 25% of the lump sum upon Substantial Completion of Part A (see Section VI, Attachment A)
- 25% of lump sum upon Substantial Completion of Part C (see Section VI, Attachment A).

**LS-14 UTILITY ALLOWANCE**

**A. Measurement**

All costs to the Contractor for work that must be performed only by the electric and other utility companies shall be included under this item. This item shall not include any monthly utility bills nor Contractor costs for the installation of utilities. The Contractor shall not be reimbursed for any security deposits that are paid to the utilities. An amount for the utility allowance has been included on the bid form.

**B. Payment**

The total cost to the Contractor as per the invoice from the utility companies, only for the installation of the utilities, will be paid by the Department upon completion of utility installation as determined by the Engineer. The Contractor will be reimbursed for these costs only after submittal to the Department of an invoice from the utility company. No overhead or handling fees will be paid for this item.

## **LS-15 SUBSURFACE DEPRESSURIZATION SYSTEM**

### **A. Measurement**

The installation of a completely operable subsurface depressurization (SSD) system acceptably performed in accordance with the Contract Drawings and as describe in Section 11304 SUBSURFACE DEPRESSURIZATION AND Section 15050 PIPING, VALVES, FITTINGS AND OTHER ACCESSORIES, shall be measured as a complete unit lump sum. This item shall include furnishing and installing all piping, connections, testing, sample collection and analysis and other necessary appurtenances required for a fully operational system.

This item also includes the furnishing of all labor, equipment materials, and utilities necessary to operate and maintain the SSD system from startup until the sytsem is later connected to the fully operational SVE system. Maintenance and operation of the system after connection to the SVE system will be paid under item UC-10.

### **B. Payment**

The Contractor shall be paid a lump sum to furnish and install a complete and acceptable SSD system per the following schedule:

- 5% lump sum upon submittal and approval of shop drawings for the subsurface depressurization system
- 45% of the lump sum upon installation.
- 45% of the lump sum upon Substantial Completion of Part A (see Section VI, Attachment A).
- 5% of the lump sum upon connection of the SSD system to the SVE system (Part C Substantial Completion - see Section VI, Attachment A)



## **SECTION XIII**

### ***Wage Rates and Associated Contract Requirements***



REQUEST FOR WAGE AND SUPPLEMENT INFORMATION  
AS REQUIRED BY ARTICLES 8 AND 9 OF THE LABOR LAW

Fax (518) 485-1870 or mail this form for new schedules or for determination for additional occupations.  
Please **type** all information Requested Below

SUBMITTED BY: ☐ CONTRACTING AGENCY ☐ PUBLIC WORK DISTRICT OFFICE  
(CHECK ONE) ☐ ARCHITECT OR ENGINEERING FIRM

DATE \_\_\_\_\_

**A. PUBLIC WORK CONTRACT TO BE LET BY: (Enter Data Pertaining to Contracting Agency)**

1. Name and complete address (☐ check if new or change)

Telephone: (     )

Fax: (     )

E-Mail:

2. ☐ N.Y. State Units
- ☐ 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	
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OFFICE USE ONLY

## B. PROJECT PARTICULARS

5. Project TITLE and/or description of work to be performed. Include contract identification number, if applicable

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

- |   |   |
|---|---|
| <input type="checkbox"/> Construction (Building, Heavy Highway/Sewer/Water) | <input type="checkbox"/> Guards, Watchmen               |
| <input type="checkbox"/> Tunnel   | <input type="checkbox"/> Janitors, porters, cleaners    |
| <input type="checkbox"/> Residential  | <input type="checkbox"/> Moving furniture and equipment |
| <input type="checkbox"/> Landscape Maintenance                              | <input type="checkbox"/> Trash and refuse removal       |
| <input type="checkbox"/> Elevator maintenance                               | <input type="checkbox"/> Window cleaners                |
| <input type="checkbox"/> Exterminators, Fumigators                          | <input type="checkbox"/> Other (Describe)               |

9. Name and Title of Requester

Signature

OFFICE USE ONLY

### Locality Designations

### Locality Designations

**SEE OTHER SIDE FOR LAWS RELATING TO PUBLIC WORK CONTRACTS**



**REQUIREMENTS OF ARTICLE 8 (Section 220-223)  
AND ARTICLE 9 (Section 230 - 239)  
OF THE NEW YORK STATE LABOR LAW**

**PREVAILING RATE SCHEDULE:**

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 to provide supplements (fringe benefits) in accordance with the prevailing practices in the locality where the work is performed.

The Department of Jurisdiction awarding a public work contract **MUST** obtain a prevailing rate schedule from the Bureau of Public Work of the New York State Department of Labor listing the hourly rates for the trades and occupations of the workers to be employed on the public work project. This schedule may be obtained by completing and forwarding the Request for Wage and Supplement Information on the reverse side hereof. 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 signing of the contract, the Department of Jurisdiction **MUST** advise the Bureau of Public Work on a form supplied by the Bureau as to the name of the contractor to whom the contract was awarded, the date and the amount of the contract.

A "Department of Jurisdiction" 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 corporations, a public benefit corporation; and a public authority awarding a public work contract.

**WITHHOLDING OF PAYMENTS FROM CONTRACTORS:**

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 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 of Public Work 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 a final determination of the underpayment by the Commissioner of Labor or by the Court in the event a legal proceeding for review of the Commissioner of Labor's determination is instituted.

The Department of Jurisdiction shall comply with an order of the Commissioner of Labor or of the Court with respect to the release of the funds so withheld.





# GENERAL PROVISIONS OF LAWS COVERING WORKERS ON 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 Let form (PW-16) is provided with the original Prevailing Rate Schedule.

The Department of Jurisdiction (Contracting Agency) is required to notify the Bureau of the completion or cancellation of any public work project. The Department's PW-200 and PW-200.1 forms are provided for that purpose.

## HOURS

No laborer, worker or mechanic in the employ of a contractor or subcontractor engaged in the performance of any public work project shall be permitted to work more than eight hours in any day or more than five days in any week, except in cases of extraordinary emergency. The contractor and the Department of Jurisdiction (Contracting Agency) may apply to the Bureau of Public Work for a dispensation permitting workers to work additional hours or days per week on a particular public work project.

## WAGES AND SUPPLEMENTS

The wages and supplements to be paid and/or provided to laborers, workers and mechanics employed on a public work project shall be not be less than those listed in the current Prevailing Rate Schedule for the locality where the work is performed. If a prime contractor on a public work project has not been provided with a Prevailing Rate Schedule, the contractor must notify the Department of Jurisdiction (Contracting Agency) who in turn must request an original Prevailing Rate Schedule from the:

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

Upon receiving the original schedule, the Department of Jurisdiction (Contracting Agency) is required to provide complete copies to all prime contractors who in turn must provide copies to each subcontractor and obtain an affidavit certifying such schedule was received.

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

#### PAYROLLS AND PAYROLL RECORDS

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

- \* Name
- \* Classification(s) in which the worker was employed
- \* Hourly wage rate(s) paid
- \* Supplements paid or provided
- \* Daily and weekly number of hours worked in each classification.

Every contractor and subcontractor shall submit to the Department of Jurisdiction (Contracting Agency), within thirty (30) days after issuance of its first payroll and every thirty (30) days thereafter, a transcript of the original payrolls, subscribed and affirmed as true under penalty of perjury. The Department of Jurisdiction (Contracting Agency) shall receive and maintain such payrolls.

In addition, the Commissioner of Labor may require contractors to furnish, within ten days of a request, payroll records sworn to as their validity and accuracy for public work and private work. Payroll records include, but are not limited to, time cards, work description sheets, proof that supplements were provided, cancelled payroll checks and payrolls. Failure to provide the requested information within the allotted ten days will result in the withholding of up to 25% of the contract, not to exceed one hundred thousand dollars. If the contractor or subcontractor does not maintain a place of business in New York State and the amount of the contract exceeds \$25,000, payroll records and certifications must be kept on the project worksite.

The prime contractor is responsible for any underpayments of prevailing wages or supplements by any subcontractor.

All contractors or their subcontractors shall provide to their subcontractors a copy of the Prevailing Rate Schedule specified in the public work contract as well as any subsequently issued schedules. A failure to provide these schedules by a contractor or subcontractor is a violation of Article 8 of the Labor Law. See Section 220-e(d).

All subcontractors engaged by a public work project contractor or its subcontractor, upon receipt of the original schedule and any subsequently issued schedules, shall provide to such contractor a verified statement attesting that the subcontractor has received the Prevailing Rate Schedule and will pay or provide the applicable rates of wages and supplements specified therein. See Section 220-a.

#### 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 Department's website on the first business day of each month. Contractors are responsible for paying these updated rates as well, retroactive to July 1st.

When you review the schedule for a particular occupation, your attention should be directed to the dates above the column of rates. These are the dates for which a given set of rates is effective. To the extent possible, the

Department posts rates in its possession that cover periods of time beyond the July 1st to June 30th time frame covered by a particular annual determination. Rates that extend beyond that instant time period are informational only and may be updated in future annual determinations that actually cover the then appropriate July 1st to June 30th time period.

#### WITHHOLDING OF PAYMENTS

When a complaint is filed with the Commissioner of Labor alleging the failure of a contractor or subcontractor to pay or provide the prevailing wages or supplements, or when the Commissioner of Labor believes that unpaid wages or supplements may be due, payments on the public work contract shall be withheld from the prime contractor in a sufficient amount to satisfy the alleged unpaid wages and supplements, including interest and civil penalty, pending a final determination.

When the Bureau of Public Work finds that a contractor or subcontractor on a public work project failed to pay or provide the requisite prevailing wages or supplements, the Bureau is authorized by Sections 220-b and 235.2 of the Labor Law to so notify the financial officer of the Department of Jurisdiction (Contracting Agency) that awarded the public work contract. Such officer MUST then withhold or cause to be withheld from any payment due the prime contractor on account of such contract the amount indicated by the Bureau as sufficient to satisfy the unpaid wages and supplements, including interest and any civil penalty that may be assessed by the Commissioner of Labor. The withholding continues until there is a final determination of the underpayment by the Commissioner of Labor or by the court in the event a legal proceeding is instituted for review of the determination of the Commissioner of Labor.

The Department of Jurisdiction (Contracting Agency) shall comply with this order of the Commissioner of Labor or of the court with respect to the release of the funds so withheld.

#### SUMMARY OF NOTICE POSTING REQUIREMENTS

The current Prevailing Rate Schedule must be posted in a prominent and accessible place on the site of the public work project. The prevailing wage schedule must be encased in, or constructed of, materials capable of withstanding adverse weather conditions and be titled "PREVAILING RATE OF WAGES" in letters no smaller than two (2) inches by two (2) inches.

Every employer providing workers' compensation insurance and disability benefits must post notices of such coverage in the format prescribed by the Workers' Compensation Board in a conspicuous place on the jobsite.

Every employer subject to the New York State Human Rights Law must conspicuously post at its offices, places of employment, or employment training centers notices furnished by the State Division of Human Rights.

Employers liable for contributions under the Unemployment Insurance Law must conspicuously post on the jobsite notices furnished by the New York State Department of Labor.

#### APPRENTICES

Employees cannot be paid apprentice rates unless they are individually registered in a program registered with the New York State Commissioner of Labor. The allowable ratio of apprentices to journeymen in any craft classification can be no greater than the statewide building trade ratios promulgated by the Department of Labor and included with the Prevailing Rate Schedule. An employee listed on a payroll as an apprentice who is not registered as above or is performing work outside the classification of work for which the apprentice is indentured, must be paid the prevailing journeyworker's wage rate for the classification of work the employee is actually performing.

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

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

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

Fax (518) 457-7154

All requests for verification must include the name and social security number of the person for whom the information is requested.

The only conclusive proof of individual apprentice registration is written verification from the Albany Apprenticeship Training Central Office. Neither Federal nor State Apprenticeship Training offices outside Albany can provide conclusive registration information.

It should be noted that the existence of a registered apprenticeship program is not conclusive proof that any person is registered in that program. Furthermore, the existence or possession of wallet cards, identification cards or copies of state forms is not conclusive proof of the registration of any person as an apprentice.

### INTEREST AND PENALTIES

In the event that an underpayment of wages and/or supplements is found:

- \* Interest shall be assessed at the rate then in effect, as prescribed by the Superintendent of Banks pursuant to section 14-a of the Banking Law, per annum from the date of underpayment to the date restitution is made.
- \* A Civil Penalty may also be assessed, not to exceed 25% of the total of wages, supplements and interest due.

### DEBARMENT

Any contractor or subcontractor and/or its successor shall be ineligible to submit a bid on or be awarded any public work contract or subcontract with any state, municipal corporation or public body for a period of five years when:

- \* Two willful determinations have been rendered against that contractor or subcontractor and/or its successor within any consecutive six-year period.
- \* There is any willful determination that involves the falsification of payroll records or the kickback of wages or supplements.

### CRIMINAL SANCTIONS

Willful violations of the Prevailing Wage Law (Article 8 of the Labor Law) constitute a misdemeanor punishable by fine or imprisonment, or both.

### DISCRIMINATION

No employee or applicant for employment may be discriminated against on account of age, race, creed, color, national origin, sex, disability or marital status.

No contractor, subcontractor nor any person acting on its behalf, shall by reason of race, creed, color, disability, sex or national origin discriminate against any citizen of the State of New York who is qualified and available to perform the work to which the employment relates. See Section 220-e(a).

No contractor, subcontractor nor any person acting on its behalf, shall in any manner, discriminate against or intimidate any employee on account of race, creed, color, disability, sex or national origin. See Section 220-e(b).

The Human Rights Law also prohibits discrimination in employment because of age, marital status or religion.

There may be deducted from the amount payable to the contractor under the contract a penalty of fifty dollars for each calendar day during which such person was discriminated against or intimidated in violation of the provisions of the contract. See Section 220-e(c).

The contract may be cancelled or terminated by the State or municipality. All monies due or to become due thereunder may be forfeited for a second or any subsequent violation of the terms or conditions of the anti-discrimination sections of the contract. See Section 220-e(d).

Every employer subject to the New York State Human Rights Law must conspicuously post at its offices, places of employment, or employment training centers notices furnished by the State Division of Human Rights.

#### WORKERS' COMPENSATION

In accordance with Section 142 of the State Finance Law, the contractor shall maintain coverage during the life of the contract for the benefit of such employees as required by the provisions of the New York State Workers' Compensation Law.

A Contractor who is awarded a public work contract must provide proof of workers' compensation coverage prior to being allowed to begin work.

The insurance policy must be issued by a company authorized to provide workers' compensation coverage in New York State. Proof of coverage must be on form C-105.2 (Certificate of Workers' Compensation Insurance) and must name this agency as a certificate holder.

If New York State coverage is added to an existing out-of-state policy, it can only be added to a policy from a company authorized to write workers' compensation coverage in this state. The coverage must be listed under item 3A of the information page.

The contractor must maintain proof that subcontractors doing work covered under this contract secured and maintained a workers' compensation policy for all employees working in New York State.

Every employer providing workers' compensation insurance and disability benefits must post notices of such coverage in the format prescribed by the Workers' Compensation Board in a conspicuous place on the jobsite.

#### UNEMPLOYMENT INSURANCE

Employers liable for contributions under the Unemployment Insurance Law must conspicuously post on the jobsite notices furnished by the New York State Department of Labor.



### INFORMATION ABOUT PREVAILING RATE SCHEDULE

PAID HOLIDAYS

OVERTIME

## SUPPLEMENTAL BENEFITS

### EFFECTIVE DATES

## APPRENTICE TRAINING RATIOS

Please call Apprenticeship Training Central Office at (518) 457-6820 if you have any questions.

Title (Trade)	Ratio
Boilermaker	1:1,1:4
Mason	1:1,1:4



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Carpenter	1:1,1:4
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	1:1,1:4
Iron Worker	1:1,1:6
Laborer	1:1,1:3
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 - Hempstead	516-228-3915	516-794-3518
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	315-793-2342
Bureau of Public Work - White Plains	914-997-9507	914-997-9523
Bureau of Public Work - New York City	212-352-6088	212-352-6186
Bureau of Public Work - Central Office	518-457-5589	518-485-1870

5/23/2001) NOTES Admin.

Updated 10/01/2002

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OVERTIME/HOLIDAY CODES

## OVERTIME

Following is an explanation of the code(s) listed in the OVERTIME section of each classification contained in the attached schedule. Additional requirements may also be listed in the HOLIDAY section.

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

## Prevailing Rate Schedule

New York State

Department of Labor

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- ( E ) Time and one half of the hourly rate on Saturday.  
 ( E1) Time and one half 1st 4 hours on Saturday. Double the hourly rate all additional Saturday hours.  
 ( E2) Saturday may be used as a make-up day at straight time when a day is lost during that week due to inclement weather.  
 ( E3) Between November 1st and March 3rd Saturday may be used as a make-up day at straight time when a day is lost during that week due to inclement weather, provided a given employee has worked between 16 and 32 hours that week.  
 ( E4) Saturday and Sunday may be used as a make-up day at straight time when a day is lost during that week due to inclement weather.  
 ( 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

## HOLIDAYS

## PAID Holidays:

Paid Holidays are days for which an eligible employee receives a regular day's pay, but is not required to perform work. If an employee works on a day listed as a paid holiday, this remuneration is in addition to payment of the required prevailing rate for the work actually performed.

## OVERTIME Holiday Pay:

Overtime holiday pay is the premium pay that is required for work performed on specified holidays. It is only required where the employee actually performs work on such holidays. The applicable holidays are listed under HOLIDAYS: OVERTIME. The required rate of pay for these covered holidays can be found in the OVERTIME PAY section listings for each classification.

Following is an explanation of the code(s) listed in the HOLIDAY section of each classification contained in the attached schedule. The Holidays as listed below are to be paid at the wage rates at which the employee is normally classified.

- ( 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 Day, Thanksgiving Day, and Christmas Day.  
 ( 7 ) Lincoln's Birthday, Washington's Birthday, and Veterans Day.  
 ( 8 ) Good Friday.  
 ( 9 ) Lincoln's Birthday.

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- ( 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 Day.  
 ( 17 ) July 4th.  
 ( 18 ) 1/2 Day before Christmas Day.  
 ( 19 ) 1/2 Day before New Years Day.  
 ( 20 ) Thanksgiving Day.  
 ( 21 ) New Year's Day.  
 ( 22 ) Christmas Day.  
 ( 23 ) Day before Christmas.  
 ( 24 ) Day before New Year's Day.  
 ( 25 ) Presidents' Day.  
 ( 26 ) Martin Luther King, Jr. Day.

Updated 10/01/2002

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Asbestos Worker

NASSAU COUNTY: Entire County  
 SUFFOLK COUNTY: Entire County  
 NEW YORK CITY: Entire 5 Boroughs

WAGES: (per hour)

7/01/02

Asbestos Worker.....\$36.11

OVERTIME: See ( C, O, T\*, V ) on OVERTIME PAGE.

\* overtime code T applies to Labor Day only if worked.

## HOLIDAYS:

Paid: See ( 1 ) on HOLIDAY PAGE.

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

For Rem./Abatement: See ( 1 ) on HOLIDAY PAGE.

APPRENTICES: ( 1 ) year terms at the following percentage of Journeyman's rates.

1st	2nd	3rd	4th
40%	60%	70%	80%

SUPPLEMENTAL BENEFITS: (per hour worked)

Journeyman.....\$ 20.89  
 Apprentices.....Same % as  
                                   wages of  
                                   \$ 20.89

WAGES (per hour)

7/01/02

12/01/02

Rem./Abatement only\*.....\$ 23.00

Addit. \$1.00 per hr.

\*On mechanical systems that are not to be scrapped.

other removal or abatement refer to Laborer Asbestos Abatement.

OVERTIME: Rem./Abatement: Time and One-Half after 8 hours per day and after 5 work days per week.

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

0206747  
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2002

Journeyman  
Rem & Abatement.....\$ 6.20

9-12

Updated 10/01/2002

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Boilermaker

DUTCHESS COUNTY: Entire County  
NASSAU COUNTY: Entire County  
NEW YORK CITY: Entire 5 Boroughs  
ORANGE COUNTY: Entire County  
PUTNAM COUNTY: Entire County  
ROCKLAND COUNTY: Entire County  
SUFFOLK COUNTY: Entire County  
SULLIVAN COUNTY: Entire County  
ULSTER COUNTY: Entire County  
WESTCHESTER COUNTY: Entire County

WAGES: (per hour)

7-01-02-  
6-30-03

Boilermaker.....\$ 35.69

OVERTIME PAY: See ( B\*\*, D, E, Q ) on OVERTIME PAGE.  
NOTE: ( \*\* ONLY ON REPAIR WORK )

## HOLIDAYS:

Paid: See ( 8, 16, 23, 24 ) on HOLIDAY PAGE.

Overtime: See ( 4, 6, 11, 12, 15, 25 ) on HOLIDAY PAGE.

APPRENTICES: ( 1/2 ) year 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%

SUPPLEMENTAL BENEFITS: (per hour worked)

\$ 4.59 +  
47 % of  
wage rate

4-5

Updated 10/01/2002

-----  
Carpenter - Dockbuilder

NASSAU COUNTY: Entire County  
NEW YORK CITY: Entire 5 Boroughs  
ROCKLAND COUNTY: Entire County  
SUFFOLK COUNTY: Entire County  
WESTCHESTER COUNTY: Entire County

WAGES: (per hour)

0206747  
NEW YORK

2002

7/01/02

Piledriver..... \$ 33.48  
Dockbuilder..... 33.48

OVERTIME PAY: See ( B, E2, 0 ) on OVERTIME PAGE.

HOLIDAYS:

Paid: See ( 18, 19 ) on HOLIDAY PAGE.  
Paid: See ( 5, 6, 11, 13, 16, 18, 19, 25 ) for 1st & 2nd yr. Apprentices  
Overtime: See ( 5, 6, 11, 13, 16, 18, 19, 25 ) on HOLIDAY PAGE.

APPRENTICES: ( 1 ) year terms at the following percentage of Journeyman's wage.

1st.	2nd.	3rd.	4th.
40%	50%	65%	80%

SUPPLEMENTAL BENEFITS: (per hour paid)

Journeyman..... \$ 23.64  
Apprentices..... 16.39

9 - 1456

Updated 10/01/2002

Carpenter - Exhibits

NASSAU COUNTY: That portion of the county that lies west of Seaford Creek and south of the Southern State Parkway.  
NEW YORK CITY: Entire 5 Boroughs  
PUTNAM COUNTY: Entire County

WAGES: (per hour) 1/01/01

Exhibit Shows.....\$ 33.38

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

HOLIDAYS:

Paid: See ( 18, 19 ) on HOLIDAY PAGE.  
Paid: See ( 5, 6, 11, 13, 16, 18, 19, 25 ) for 1st & 2nd yr. Apprentices  
Overtime: See ( 5, 6, 11, 13, 16, 18, 19, 25 ) on HOLIDAY PAGE.

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

1st.	2nd.	3rd.	4th.
40%	50%	65%	80%

SUPPLEMENTAL BENEFITS: (per hour paid)

Journeyman ..... \$ 22.81  
Apprentices..... 15.96

0206747  
NEW YORK

2002

9-EXHIB

Updated 10/01/2002

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Carpenter - Floor Coverer

DUTCHESS COUNTY: Entire County  
NASSAU COUNTY: Entire County  
NEW YORK CITY: Entire 5 Boroughs  
PUTNAM COUNTY: Entire County  
ROCKLAND COUNTY: Entire County  
SUFFOLK COUNTY: Entire County  
WESTCHESTER COUNTY: Entire County

WAGES: (per hour) 7/01/02

Carpet/Resilient  
Floor Coverer..... \$ 35.09

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

HOLIDAYS:

Paid: See ( 18, 19 ) on HOLIDAY PAGE.  
Paid: See ( 5, 6, 11, 13, 16, 18, 19, 25 ) for 1st & 2nd yr. Apprentices  
Overtime: See ( 5, 6, 11, 13, 16, 18, 19, 25 ) on HOLIDAY PAGE.

APPRENTICES: ( 1 ) year terms at the following percentage of Journeyman's wage.

1st.	2nd.	3rd.	4th.
40%	50%	65%	80%

SUPPLEMENTAL BENEFITS: (per hour paid)

Journeyman ..... \$ 23.64  
Apprentices ..... 16.39

9 - 2287

Updated 10/01/2002

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Carpenter - Heavy Highway

NEW YORK CITY: Entire 5 Boroughs

WAGES: (per hour) 7/01/02

Building:  
Carpenter.....\$ 35.09  
Heavy/Highway:  
Carpenter.....\$ 33.48

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

HOLIDAYS:

Paid: See ( 18, 19 ) on HOLIDAY PAGE.  
Paid: See ( 5, 6, 11, 13, 16, 18, 19, 25 ) for 1st & 2nd yr. Apprentices  
Overtime: See ( 5, 6, 11, 13, 16, 18, 19, 25 ) on HOLIDAY PAGE.

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2002

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

1st.	2nd.	3rd.	4th.
40%	50%	65%	80%

## SUPPLEMENTAL BENEFITS: (per hour paid)

Journeyman .....\$ 23.64  
Apprentices ..... 16.39

9 - NYC

Updated 10/01/2002

-----  
Carpenter - Marine Construction/Diver

NASSAU COUNTY: Entire County  
NEW YORK CITY: Entire 5 Boroughs  
PUTNAM COUNTY: Entire County  
ROCKLAND COUNTY: Entire County  
WESTCHESTER COUNTY: Entire County  
SUFFOLK COUNTY: Entire County

WAGES: (per hour) 7/01/02

Marine Construction:  
Marine Diver.....\$ 41.17  
" " Tender.....\$ 30.39

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

## HOLIDAYS:

Paid: See ( 18, 19 ) on HOLIDAY PAGE.  
Paid: See ( 5, 6, 10, 11, 13, 16, 18, 19 ) for 1st & 2nd yr. Apprentices  
Overtime: See ( 5, 6, 10, 11, 13, 16, 18, 19 ) on HOLIDAY PAGE.

APPRENTICES: (1) year terms at the following percentage of the journeyman's wage.

1st	2nd	3rd	4th
40%	50%	65%	80%

## SUPPLEMENTAL BENEFITS: (per hour paid)

Journeyman.....\$ 23.64  
Apprentices ..... 16.39

9 - 1456

Updated 10/01/2002

-----  
Carpenter - Millwright

NASSAU COUNTY: Entire County  
NEW YORK CITY: Entire County  
PUTNAM COUNTY: Entire County  
ROCKLAND COUNTY: Entire County  
SUFFOLK COUNTY: Entire County

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2002

WESTCHESTER COUNTY: Entire County

WAGES: (per hour) 7/01/02

Building:  
Millwright.....\$ 35.21

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

HOLIDAYS:

Paid: See ( 18, 19 ) on HOLIDAY PAGE.

Paid: See ( 5, 6, 11, 13, 16, 18, 19, 25 ) for 1st &amp; 2nd yr. Apprentices

Overtime: See ( 5, 6, 11, 13, 16, 18, 19, 25 ) on HOLIDAY PAGE.

APPRENTICES: ( 1 ) year terms at the following percentage of Journeyman's wage.

1st.	2nd.	3rd.	4th.
55%	65%	75%	95%

SUPPLEMENTAL BENEFITS: (per hour paid)

Journeyman .....	\$ 25.96
Appr 1st term .....	17.22
Appr 2nd term .....	18.85
Appr 3rd term .....	21.18
Appr 4th term .....	23.70

9-740.1

Updated 10/01/2002

-----  
Carpenter - TimbermanNASSAU COUNTY: Entire County  
NEW YORK CITY: Entire 5 Boroughs  
SUFFOLK COUNTY: Entire County  
WESTCHESTER COUNTY: Entire County

WAGES: (per hour) 7/01/01

Timberman ..... \$ 30.59

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

HOLIDAYS:

Paid: See ( 18, 19 ) on HOLIDAY PAGE.

Paid: See ( 5, 6, 11, 13, 16, 18, 19, 25 ) for 1st &amp; 2nd yr. Apprentices

Overtime: See ( 5, 6, 11, 13, 16, 18, 19, 25 ) on HOLIDAY PAGE.

APPRENTICES: ( 1 ) year terms at the following percentage of Journeyman's wage.

1st.	2nd.	3rd.	4th.
40%	50%	65%	80%

SUPPLEMENTAL BENEFITS: (per hour paid)



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Journeyman ..... \$ 23.64  
Apprentices..... 16.39

9 - 1536

Updated 10/01/2002

-----  
Core Driller

ORANGE COUNTY: South of but including the following, Waterloo Mills, Slate Hill, New Hampton, Goshen, Blooming Grove, Mountainville, east to the Hudson River.  
PUTNAM COUNTY: South of but including the following, Cold Spring, Tompkins Corner, Mahopac, Croton Falls, east to Connecticut border.  
SUFFOLK COUNTY: West of Port Jefferson and Patchogue Road to Route 112 to the Atlantic Ocean.  
NASSAU COUNTY: Entire County  
NEW YORK CITY: Entire 5 Boroughs  
ROCKLAND COUNTY: Entire County  
WESTCHESTER COUNTY: Entire County

WAGES: (per hour)

10/16/01

Core Drilling:

Driller..... \$ 24.73  
Helper..... 20.47

Note: Hazardous Waste Pay Differential:

For Level C, an additional \$ 0.25 per hour  
For Level B, an additional .75 per hour  
For Level A, an additional 1.00 per hour

Note: When required to work on water: an additional \$ 0.25 per hour.

OVERTIME PAY: See ( B, E, K\*, P, R\*\* ) on OVERTIME PAGE.

HOLIDAYS:

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

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

\*\* See ( 8, 10, 11, 13 ) on HOLIDAY PAGE.

SUPPLEMENTAL BENEFITS: (per hour worked)

\$ 9.59

9-1536

Updated 10/01/2002

-----  
Electrician

NEW YORK CITY: Entire 5 Boroughs

5/9/02

5/15/03

Electrician.....	\$ 39.00	41.00
Audio/Sound/Tele/Data...	39.00	41.00

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



HOLIDAYS:

Paid: See ( 1 ) on HOLIDAY PAGE.  
Overtime: See ( 5, 6, 10, 11, 12, 16 ) on HOLIDAY PAGE.

APPRENTICES: ( 1 ) year terms at the following rates:

1st	2nd	3rd	4th	5th
\$11.75	14.30	16.15	18.10	22.60

SUPPLEMENTAL BENEFITS:

Journeyman.....	\$ 28.719	30.358
Appr 1st term.....	8.002	8.244
Appr 2nd term.....	9.240	9.605
Appr 3rd term.....	10.136	10.622
Appr 4th term.....	11.081	11.567

9-3

Updated 10/01/2002

Electrician - Maintenance

NEW YORK CITY: Entire 5 Boroughs

WAGES: (per hour)

5/09/02                      5/15/03

Electrician.....\$ 22.60                      23.80  
Retrofitting or upgrading of existing interior lighting fixtures with energy efficient components, providing there is no additional wiring, additional fixtures, or is part of a more expansive renovation project.

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

HOLIDAYS:

Paid: See ( 5, 6, 10, 11, 12, 16 ) on HOLIDAY PAGE.  
Overtime: See ( 5, 6, 10, 11, 12, 16 ) on HOLIDAY PAGE.

SUPPLEMENTAL BENEFITS: (per hour worked)

Journeyman ..... \$ 10.797                      11.246

9-3m

Updated 10/01/2002

Electrician - Tree Trimmer

NEW YORK CITY: Entire 5 Boroughs

Applies to line clearance, tree work, and right-of-way preparation on all new or existing overhead, electrical, telephone, and CATV lines.

WAGES (per hour)

1/02/2000

0206747  
NEW YORK

2002

Senior Trimmer ..... \$ 20.36  
Junior Trimmer ..... 17.81  
Groundperson ..... 11.76

OVERTIME PAY: See ( B, G, P ) on OVERTIME PAGE.

## HOLIDAYS:

Paid: See ( 5, 6, 10, 11, 15, 16, 26 ) on HOLIDAY PAGE.  
(An additional floating holiday after four years' service)  
Overtime: See ( 5, 6, 10, 11, 15, 16, 26 ) on HOLIDAY PAGE.

SUPPLEMENTAL BENEFITS: (per hour paid)  
17%  
of wage

9-3T

Updated 10/01/2002

Elevator - Constructor

ROCKLAND COUNTY: Entire County except for the Township of Stony Point  
WESTCHESTER COUNTY: Entire County except for the Townships of Bedford,  
Lewisboro, Cortland, Mt. Kisco, North Salem, Pound Ridge, Somers  
and Yorktown.  
NASSAU COUNTY: Entire County  
NEW YORK COUNTY: Entire 5 Boroughs  
SUFFOLK COUNTY: Entire County

WAGES: (per hour)

7/01/02

Elevator Constructor..... \$ 39.50

" Modern. & service..... \$ 31.96

Apprentice: (6) month terms at the following percentage of Journeyman's wage.

1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
50%	60%	65%	70%	75%	75%	75%	75%	75%	75%

OVERTIME PAY: CONSTR. See ( C, O ) on OVERTIME PAGE.

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

## HOLIDAYS:

Paid: See ( 5, 6, 7, 11, 16 ) on HOLIDAY PAGE.  
Overtime: See ( 5, 6, 7, 11, 16 ) on HOLIDAY PAGE.

SUPPLEMENTAL BENEFITS: (per hour worked)

Journeyman and Apprentices:

Construction .....	\$ 16.735
Appr. 1st year .....	11.305
Appr. 2nd year .....	12.435
Appr. 3rd year .....	13.395
Appr. 4th year .....	14.345
Appr. 5th year .....	15.305

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Modern./Service .....	15.745
Appr. 1st year .....	10.785
Appr. 2nd year .....	11.445
Appr. 3rd year .....	12.305
Appr. 4th year .....	13.605
Appr. 5th year .....	14.465

9-1

Updated 10/01/2002

-----  
Glazier

DUTCHESS COUNTY:	Entire county
NASSAU COUNTY:	Entire county
NEW YORK CITY:	Entire 5 boroughs
ORANGE COUNTY:	Entire county
PUTNAM COUNTY:	Entire county
ROCKLAND COUNTY:	Entire county
SUFFOLK COUNTY:	Entire county
SULLIVAN COUNTY:	Entire county
ULSTER COUNTY:	Entire county
WESTCHESTER COUNTY:	Entire county

WAGES: (per hour) 5/01/02

Glazier..... \$ 32.20

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

HOLIDAYS:

Paid: See ( 1 ) on HOLIDAY PAGE.

Overtime: See ( 5, 6, 16, 25 ) on HOLIDAY PAGE.

APPRENTICES: ( 1 ) year terms at the following percentage of  
Journeyman's wage.

1st	2nd	3rd	4th
40%	50%	60%	80%

SUPPLEMENTAL BENEFITS: (per hour worked)

Journeyman .....	\$ 20.12
Appr 1st term .....	6.45
Appr 2nd term .....	12.49
Appr 3rd term .....	14.01
Appr 4th term .....	17.47

9-1087  
(DC9 NYC)

Updated 10/01/2002

-----  
Ironworker - Derrickman/Rigger

NASSAU COUNTY: Entire County

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NEW YORK CITY: Entire 5 Boroughs  
SUFFOLK COUNTY: Entire County  
WESTCHESTER COUNTY: Entire County

WAGES: (per hour) 7/01/02  
Derrickman/Rigger.....\$ 34.46

OVERTIME PAY: See ( C, O, V ) on OVERTIME PAGE.

HOLIDAYS:  
Paid: See ( 1 ) on HOLIDAY PAGE.  
Overtime: See ( 5, 6, 8, 10 ) on HOLIDAY PAGE.

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

1st	2nd	3rd	4th	5th	6th
50%	60%	70%	80%	90%	90%

SUPPLEMENTAL BENEFITS: (per hour worked)  
\$ 26.41

9-197

Updated 10/01/2002

-----  
Ironworker - Ornamental

NASSAU COUNTY: Entire County  
NEW YORK CITY: Entire 5 Boroughs  
SUFFOLK COUNTY: Entire County  
WESTCHESTER COUNTY: Entire County

WAGES: (per hour) 7/01/02

Ornamental.....\$ 40.15  
Chain Link Fence..... 40.15  
Guide Rail Installation.... 40.15

OVERTIME PAY: See ( A, D1, E\*, Q, V ) on OVERTIME PAGE.  
\*Double time after 7 hours on Saturday.

HOLIDAYS:  
Paid: See ( 1 ) on HOLIDAY PAGE.  
Overtime: See ( 5, 6, 8 ) on HOLIDAY PAGE.

APPRENTICE (1/2 ) year terms at the following percentage of Journeyman's wage.

1st.	2nd.	3rd.	4th.	5th.	6th.
60%	65%	70%	80%	85%	95%

SUPPLEMENTAL BENEFITS: (per hour worked)

Journeyman .....\$ 19.40  
Appr 1st term ..... 16.94

New York State

## Prevailing Rate Schedule

Department of Labor

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2002

Appr 2nd term	17.24
Appr 3rd term	17.55
Appr 4th term	18.17
Appr 5th term	18.48
Appr 6th term	19.09

9-580

Updated 10/01/2002

-----  
Ironworker - Reinforcing

ROCKLAND COUNTY: Southern Section  
 NASSAU COUNTY: Entire County  
 NEW YORK CITY: Entire 5 Boroughs  
 SUFFOLK COUNTY: Entire County  
 WESTCHESTER COUNTY: Entire County

WAGES: (per hour) 7/01/01

Reinforcing &  
Metal Lathing.....\$ 35.05

OVERTIME PAY: See ( A, E, P, V ) on OVERTIME PAGE.

## HOLIDAYS:

Paid: See ( 1 ) on HOLIDAY PAGE.

Overtime: See ( 5, 6, 8, 10, 11, 13, 18, 19 ) on HOLIDAY PAGE.

APPRENTICES: ( 1 ) year terms at the following wage rates.

1st	2nd	3rd	4th
\$20.80	\$23.00	\$26.45	\$29.90

SUPPLEMENTAL BENEFITS: (per hour worked)

Journeyman	\$ 21.43
Apprentices:	
1st term	13.43
2nd term	15.68
3rd term	16.68
4th term	17.68

9-46

Updated 10/01/2002

-----  
Ironworker - Structural

NASSAU COUNTY: Entire County  
 NEW YORK CITY: Entire 5 Boroughs  
 SUFFOLK COUNTY: Entire County  
 WESTCHESTER COUNTY: Entire County

WAGES: (per hour) 1/01/02

Structural	\$ 43.80
Riggers	43.80
Machinery Movers	43.80
" " Erectors	43.80

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OVERTIME PAY: See ( B, E\*, Q, V ) on OVERTIME PAGE.  
\* for 1st 8 hours, double time thereafter.

## HOLIDAYS:

Paid: See ( 18, 19 ) on HOLIDAY PAGE.  
Overtime: See ( 5, 6, 8, 18, 19 ) on HOLIDAY PAGE.

APPRENTICES: ( 1/2 ) year terms at the following wage.

1st.	2nd.	3rd.	4th.	5th.	6th.
\$ 23.65	24.25	24.25	24.85	24.85	24.85

## SUPPLEMENTAL BENEFITS: (per hour worked)

Journeyman.....\$ 24.23  
Apprentices ..... 19.08

9-40/361

Updated 10/01/2002

-----  
Laborer - Asphalt

NEW YORK CITY: Entire 5 Boroughs

WAGES: (per hour) 7/01/02

## Laborer/Asphalt:

Screedman.....\$ 32.73  
Rakers..... 32.36  
Tampers..... 29.92  
All Others..... 9.81

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

## HOLIDAYS:

Paid: See ( 5, 11, 12, 15, 20 ) on HOLIDAY PAGE.  
Overtime: See ( 5, 6, 11, 12, 15, 20, 25 ) on HOLIDAY PAGE.

## SUPPLEMENTAL BENEFITS: (per hour worked)

\$ 15.65

9-1018

Updated 10/01/2002

-----  
Laborer - Building Demolition

NEW YORK CITY: Entire 5 Boroughs

\* / Total Demolition Only: Demolition shall be the complete demolition (wrecking) or dismantling of entire buildings or structures. Also may include the removal of all or any portion of a roof in which structural change is to occur. Structural change is defined as the removal of structural slabs, steel members, concrete members and penetration through the structural slab.

WAGES: (per hour)

7/01/02



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-----2002-----

Building Laborer-Demolition:  
Barman.....\$ 23.65  
Barman assistant..... 21.00  
Laborer (manual cleanup on  
full demo.\* only)..... 12.00

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

## HOLIDAYS:

Paid: See ( 1 ) on HOLIDAY PAGE.

Overtime: See ( 5, 6, 8, 13, 15, 25, 26 ) on HOLIDAY PAGE.

SUPPLEMENTAL BENEFITS: (per hour worked)

19% of wage

9-95

Updated 10/01/2002

-----  
Laborer - Building mason tender/asbestos removal

NEW YORK CITY: Entire 5 Boroughs

WAGES: (per hour)

7/01/02

1/01/03

7/01/03

Laborer (Bldg):

Basic Laborer.....\$ 26.55

Addit.

Addit.

Mason Tender..... 26.55

\$ .75/Hr.

\$ .75/hr.

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

## HOLIDAYS:

Paid: See ( 1 ) on HOLIDAY PAGE.

Overtime: See ( 5, 6, 25 ) on HOLIDAY PAGE.

APPRENTICES: 1000 hours terms at the following wage.

1st	2nd	3rd	4th
\$15.80	\$16.80	\$18.30	\$20.80

SUPPLEMENTAL BENEFITS: (per hour worked)

Journeyman..... \$ 14.44

Apprentice..... 8.20

9-NYDC(79)

WAGES (per hour)

12/01/01

12/01/02

Laborer Asbestos Abatement.....\$ 23.15

Addit. \$1.00/hr.

New York State                      Prevailing Rate Schedule                      Department of Labor  
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OVERTIME PAY: See ( B, H ) on OVERTIME PAGE.

## HOLIDAYS:

Paid: See ( 1 ) on HOLIDAY PAGE.

Overtime: See ( 2, 6, 17 ) on HOLIDAY PAGE.

APPRENTICES: 1000 hours terms at the following percentage of Journeyman's wage.

1st	2nd	3rd	4th
78%	80%	83%	89%

SUPPLEMENTAL BENEFITS: (per hour worked)

\$ 6.05

9-NYDC(78)

Updated 10/01/2002

-----  
Laborer - Building Plaster Helper

NEW YORK CITY: Entire 5 Boroughs

WAGES: (per hour)

7/03/02

1/01/03

Building:

Plasterer Helper.....\$ 26.55

Addit.

Spray Fireproofing.....\$ 26.55

\$ .75/hr.

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

## HOLIDAYS:

Paid: See ( 1 ) on HOLIDAY PAGE.

Overtime: See ( 5, 6, 25 ) on HOLIDAY PAGE.

APPRENTICES: 1000 hours terms at the following wage.

1st	2nd	3rd	4th
\$15.80	\$16.80	\$18.30	\$20.80

SUPPLEMENTAL BENEFITS: (per hour worked)

Journeyman	\$ 14.64
Apprentices	7.80

9-30 (79)

Updated 10/01/2002

-----  
Laborer - Concrete

NEW YORK CITY: Entire 5 Boroughs

WAGES: (per hour)

7/01/02

Laborer:

" Concrete.....\$ 31.08

OVERTIME PAY: See ( A, E, Q ) on OVERTIME PAGE attached.\*  
\*( B, E, Q, ) when working below street level to top of foundation.

HOLIDAYS:  
Paid: See ( 1 ) on HOLIDAY PAGE attached.  
Overtime: See ( 5, 6, 8, 11, 13, 25 ) on HOLIDAY PAGE attached.

SUPPLEMENTAL BENEFITS: (per hour worked)

\$ 11.92

9-6A/18A/20

Updated 10/01/2002

-----  
Laborer - Excavation

NASSAU COUNTY: Entire County  
NEW YORK CITY: Entire County  
SUFFOLK COUNTY: Entire County

WAGES: (per hour) 7/01/02

Laborer/Excavation:  
Basic.....\$ 28.74  
Flagman..... 28.74  
Pipelayer..... 28.74  
Tree Work, Landscape..... 28.74

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

HOLIDAYS:  
Paid: See ( 2, 20 ) on HOLIDAY PAGE.  
Overtime: See ( 5, 6, 11, 13 ) on HOLIDAY PAGE.

APPRENTICES: 1000 hour terms at the following percentage of journeyman's wage.

1st	2nd	3rd	4th
50%	60%	75%	90%

SUPPLEMENTAL BENEFITS: (per hour worked)

\$ 14.64

9-731Ex

Updated 10/01/2002

-----  
Laborer - Free Air

NASSAU COUNTY: Entire County  
NEW YORK CITY: Entire 5 Boroughs  
SUFFOLK COUNTY: Entire County

GROUP A: Blasters.

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## GROUP B: Tunnel workers \*

\* (including Miners, Drill Runners, Iron Men, Maintenance Men, Conveyor Men, Safety Miners, Riggers, Block Layers, Cement Finishers, Rod Men, Caulkers, Powder Carriers, Miners' Helpers, Chuck Tenders, Track Men, Nippers, Brake Men, Deraill Men, Form Men, Bottom Bell, Top Bell or Signal men, Form Workers, Movers, Concrete Workers, Shaft Men, Tunnel Laborers and Caulkers' Helpers).

## GROUP C: Powder Watchmen, Top Laborers and Changehouse Attendants.

WAGES: (per hour)	7/01/99-	7/01/00	7/01/01
Laborer (Tunnel)-FREE AIR:		addit.	addit.
Group A.....	\$ 26.03	2.247/hr	2.247/hr
Group B.....	\$ 24.90	2.15/hr	2.15/hr
Group C.....	\$ 23.005	1.99/hr	1.99/hr

Small Bore Micro Tunnel Machines	80% of rates above
For Repairs on Existing Water Tunnels	90% of rates above
For Repairs of Sewer & Drainage Tunnels	85% of rates above
For Repair & Maintenance of all Subway & Vehicular Tunnels	80% of rates above

OVERTIME PAY: For Laborer (Free Air) See ( D, M, R\* ) on OVERTIME PAGE.  
 For Repair Categories See ( B, F, R\* ) on OVERTIME PAGE.  
 & Micro Tunneling  
 \* Straight time first 8 hours, double time after 8 hours.

## HOLIDAYS:

Paid: See ( 5, 6, 9, 11, 12, 15, 25 ) on HOLIDAY PAGE.  
 Overtime: See ( 5, 6, 9, 11, 12, 15, 25 ) on HOLIDAY PAGE.

## SUPPLEMENTAL BENEFITS

GROUP A	26.18% of straight time hourly rate + \$17.585 per hour paid + .28 per hour worked + 3.00 per day + .16 per hour on Overtime Hours.
GROUP B	26.18% of straight time hourly rate + \$16.825 per hour paid + .28 per hour worked + 3.00 per day + .16 per hour on Overtime Hours.
GROUP C	26.18% of straight time hourly rate + \$15.546 per hour paid + .28 per hour worked + 3.00 per day + .16 per hour on Overtime Hours.

Small Bore Micro Tunnel Machines	80% of rates above
For Repairs on Existing Water Tunnels	90% of rates above
For Repairs of Sewer & Drainage Tunnels	85% of rates above

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For Repair & Maintenance of all Subway & 80% of rates above  
Vehicular Tunnels

9-147Tn1/Free

Updated 10/01/2002

-----  
Laborer - Highway Formsetter

NEW YORK CITY: Entire 5 Boroughs

WAGES: (per hour) 7/01/02

Laborer:  
Highway.....\$ 28.94  
Formsetter..... 32.04

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

HOLIDAYS:  
Paid: See ( 5, 11, 12, 20 ) on HOLIDAY PAGE.  
Overtime: See ( 5, 6, 11, 12, 20 ) on HOLIDAY PAGE.

SUPPLEMENTAL BENEFITS: (per hour worked)

\$ 15.65

9-1010HH

Updated 10/01/2002

-----  
Laborer - Trac Drill

NEW YORK CITY: Entire County

WAGES: (per hour) 7/01/02

Hydraulic Trac Drill:	
" Runner.....	\$ 27.46
" Helper.....	22.69
Wagon, Air Trac, Quarry	
Bar Drill Runner.....	26.91
Drill Runners Helper	
Nipper.....	22.20
Blaster.....	30.61
w/ Hyd. Trac. Drill.....	31.16
Power Tool.....	26.22
Powder Carrier.....	23.58
Magazine Keeper.....	12.83

OVERTIME PAY: Magazine Keeper See ( B, H ) on OVERTIME PAGE.  
OVERTIME PAY: ALL OTHERS SEE ( D, E, Q ) on OVERTIME PAGE.

HOLIDAYS:  
Paid: For Blaster See ( 5, 6, 11, 13 ) on HOLIDAY PAGE.  
FOR ALL OTHERS SEE ( 1 ) ON HOLIDAY PAGE.  
Overtime: See ( 5, 6, 11, 13 ) on HOLIDAY PAGE.

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## SUPPLEMENTAL BENEFITS: ( per hour worked )

\$19.60 \*Note

\*\$ 7.50 of total to be paid at premium rate for overtime hours.

9-29

Updated 10/01/2002

-----  
Laborer - Tunnel Compressed AirNASSAU COUNTY: Entire County  
NEW YORK CITY: Entire 5 Boroughs  
SUFFOLK COUNTY: Entire County

GROUP 1: Blasters, Mucking and Machine Operators.

GROUP 2: Tunnel Workers\* \* (including Miners, Drill Runners, Iron Men, Maintenance Men, Inside Muck Lock Tender, Pumpmen, Electricians, Cement Finishers, Rod Men, Caulkers, Carpenters, Hydraulic Men, Shield Drivers, Monorail Operators, Motor Men, Conveyor Men, Safety Miners, Powder Carriers, Pan Men, Riggers, Miner's Helpers, Chuck Tenders, Track Men, Nippers, Brake Men, Form Workers, Concrete Workers, Tunnel Laborers, Caulker's Helpers), Hose Men, Grout Men, Gravel Men, Derail Men and Cable Men.

GROUP 3: Top Nipper

GROUP 4: Outside Man Lock Tender, Outside Muck Lock Tender, Shaft Men, Gauge Tender and Signal Men.

GROUP 5: Powder Watchmen, Top Laborers and Changehouse Attendants.

## WAGES: (per hour)

	7/01/99	7/01/00	7/01/01
Laborer(Compressed Air):		addit.	addit.
GROUP 1.....	\$ 27.256	2.35/hr	2.35/hr
GROUP 2.....	26.325	2.27/hr	2.27/hr
GROUP 3.....	25.837	2.23/hr	2.23/hr
GROUP 4.....	25.37	2.19/hr	2.19/hr
GROUP 5.....	22.975	1.99/hr	1.99/hr

OVERTIME PAY: See ( D, M, R\* ) on OVERTIME PAGE. NOTE: Time and one-half to be paid for all overtime repair-maintenance work on existing equipment and facilities.

\* Straight time first 8 hours, double time after 8 hours.

## HOLIDAYS:

Paid: See ( 5, 6, 9, 11, 12, 15, 25 ) on HOLIDAY PAGE.

Overtime: See ( 5, 6, 9, 11, 12, 15, 25 ) on HOLIDAY PAGE.

## SUPPLEMENTAL BENEFITS :

GROUP 1	26.18% of hourly rate +
	\$ 18.41 per hour paid +
	.28 per hour worked +
	3.00 per day+
	.16 per Overtime Hour .
GROUP 2	26.18% of hourly rate +

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\$17.78 per hour paid +  
.28 per hour worked +  
3.00 per day +  
.16 per Overtime Hour

GROUP 3 26.18% of hourly rate +  
\$17.455 per hour paid +  
.28 per hour worked +  
3.00 per day +  
.16 per overtime hour

GOURP 4 26.18% of hourly rate +  
\$ 17.141 per hour paid +  
.28 per hour worked +  
3.00 per day +  
.16 per overtime hour

GROUP 5 26.18% of hourly rate +  
\$15.583 per hour paid +  
.28 per hour worked +  
3.00 per day +  
.16 per overtime hour

9-147Tn1/Comp Air

Updated 10/01/2002

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Mason - Building Bricklayer

NASSAU COUNTY: Entire County  
NEW YORK CITY: Entire 5 Boroughs  
SUFFOLK COUNTY: Entire County

WAGES: (per hour) 7/01/02

Building:  
Bricklayer.....\$ 33.93

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

HOLIDAYS:

Paid: See ( 1 ) on HOLIDAY PAGE.

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

APPRENTICES: ( 750 hour ) terms at the following percentage of Journeyman's wage.

1st	2nd	3rd	4th	5TH (500 Hrs)	6TH (500 Hrs)
50%	60%	70%	80%	90%	95%

SUPPLEMENTAL BENEFITS: (per hour worked)

Journeyman.....\$ 16.62  
Appr.....9.19

9-1Brk

Updated 10/01/2002

-----  
Mason - Building Mosaic and Terrazzo Worker

NASSAU COUNTY: Entire County  
NEW YORK CITY: Entire 5 Boroughs  
SUFFOLK COUNTY: Entire County

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WESTCHESTER COUNTY: Entire County

WAGES: (per hour) 7/01/02

Building:

Mosaic &

Terrazzo Worker.....\$ 34.98

" Helper.....\$ 33.67

OVERTIME PAY: See ( A, E, Q, V\* ) on OVERTIME PAGE.  
\* \$ 5.45 added to supplements.

HOLIDAYS:

Paid: See ( 1 ) on HOLIDAY PAGE.

Overtime: See ( 5, 6, 8, 11, 15, 16, 25 ) on HOLIDAY PAGE.

SUPPLEMENTAL BENEFITS: (per hour worked)

\$ 16.35

9-7/3

Updated 10/01/2002

Mason - Building Tile Layer

NASSAU COUNTY: Entire county

NEW YORK CITY: Entire 5 boroughs

SUFFOLK COUNTY: Entire county

WESTCHESTER COUNTY: Entire county

WAGES: (per hour)

11/01/99

Building:

Tile Layer.....\$ 31.26

OVERTIME PAY: See ( A, O ) on OVERTIME PAGE.

HOLIDAYS:

Paid: See ( 1 ) on HOLIDAY PAGE.

Overtime: See ( 5, 6, 8, 10, 11, 15, 16 ) on HOLIDAY PAGE.

APPRENTICES: ( 750 hr) terms at the following percentage of journeyman's wage.

1st	2nd	3rd	4th	5th	6th
50%	55%	65%	75%	85%	95%

SUPPLEMENTAL BENEFITS: (per hour worked)

\$ 14.82

9-7/52

Updated 10/01/2002



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Mason - Cement

NASSAU COUNTY: Entire County  
NEW YORK CITY: Entire 5 Boroughs  
SUFFOLK COUNTY: Entire County

WAGES: (per hour)

7/01/00

7/01/01

Cement Mason.....\$ 35.00

Addit. \$2.25/hr.

OVERTIME PAY: See ( C, O, V ) on OVERTIME PAGE.

HOLIDAYS:

PAID: See ( 1 ) on HOLIDAY PAGE.

OVERTIME: See ( 5, 6, 8, 11, 13, 25 ) on HOLIDAY PAGE.

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

1st	2nd	3rd	4th	5th	6th
50%	60%	70%	80%	90%	95%

SUPPLEMENTAL BENEFITS: (per hour worked)

\$ 16.13

9-780

Updated 10/01/2002

Mason - Marble

NASSAU COUNTY: Entire County  
NEW YORK CITY: Entire 5 Boroughs  
SUFFOLK COUNTY: Entire County  
WESTCHESTER COUNTY: Entire County

WAGES: (per hour)

1/01/00

Building:

Marble/ Sawyer, Rubber

& Polisher.....\$ 29.98

Marble Restoration

Finishers..... 15.07

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

HOLIDAYS:

Paid: Journeymen receive 1/2 days pay for Labor Day.  
Cleaner, Maintenance and 1ST three terms of Apprentices  
See ( 5, 6, 11, 15 )  
on HOLIDAY PAGE.

Overtime: All others See ( 1 ) on HOLIDAY PAGE.  
See ( 5, 6, 11, 15 ) on HOLIDAY PAGE.

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

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1st	2nd	3rd	4th	5th	6th	7th	8th
50%	55%	60%	65%	70%	80%	90%	95%

## SUPPLEMENTAL BENEFITS: (per hour worked)

Journeyman .....\$ 12.33  
 Cleaner/Maintenance ..... 2.40  
 Appr..... 5.80 +  
 wage percentage of \$ 6.09

9-7/24

Updated 10/01/2002

## Mason - Marble Cutters and Setters

NEW YORK CITY: Entire 5 Boroughs EXCEPT for projects that fall within  
 a fifty-mile radius of Columbus Circle in New York City.  
 WESTCHESTER COUNTY: Entire county

## WAGES: (per hour)

1/01/00

Building:  
 Marble Cutters &  
 Setters.....\$ 34.88

OVERTIME PAY: See ( B, O, V ) on OVERTIME PAGE attached.

## HOLIDAY:

Paid: Journeymen receive 1/2 days pay for Labor Day.  
 Apprentices 1st three terms See ( 5, 6, 8, 11, 15 ) on HOLIDAY PAGE,  
 Plus any day following a Thursday or Sunday Holiday.  
 \*All others See ( 1 ) on HOLIDAY PAGE.

Overtime: See ( 5, 6, 8, 11, 15, ) on HOLIDAY PAGE.

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

1st	2nd	3rd	4th	5th	6th
50%	55%	65%	70%	80%	95%

## SUPPLEMENTAL BENEFITS: (per hour worked)

Journeyman.....\$ 15.65  
 Appr..... 5.90 +  
 wage percentage of \$ 9.75

9-7/4

Updated 10/01/2002

## Mason - Marble Rigger

NASSAU COUNTY: Entire County  
 NEW YORK CITY: Entire 5 Boroughs  
 SUFFOLK COUNTY: Entire County  
 WESTCHESTER COUNTY: Entire County

## WAGES: (per hour)

1/01/00

Marble-Riggers,  
 Crane & Derrickman.....\$ 28.72

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OVERTIME PAY: See ( C, O, V ) on OVERTIME PAGE.

## HOLIDAY:

Paid: 1/2 Day for Labor Day.

Overtime: See ( 5, 6, 8, 11, 15, 25 ) on OVERTIME PAGE.

SUPPLEMENTAL BENEFITS: (per hour worked)  
\$ 16.82

9-7/20

Updated 10/01/2002  
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Mason - Paver

NASSAU COUNTY: Entire County  
NEW YORK CITY: Entire 5 Boroughs  
SUFFOLK COUNTY: Entire County

\* Shall include but not limited to: fired clay brick pavers, pre-cast concrete slabs (london walks), pressed concrete pavers, cobble stone, all types of flagging, asphalt concrete pavers- asphaltic cement sand and stone aggregate, unit safety surface.

WAGES: (per hour)

8/01/99

Journeyman.....\$ 24.12  
Apprentice ( one year term )..... 20.27

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

## HOLIDAYS:

Paid: See ( 1 ) on HOLIDAY PAGE.

Overtime: See ( 5, 6, 25 ) on HOLIDAY PAGE.

SUPPLEMENTAL BENEFITS: (per hour worked)

Journeyman.....\$ 10.76  
Appr..... 6.08

9-1 Paver

Updated 10/01/2002  
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Mason - Plasterer

NASSAU COUNTY: Entire County  
NEW YORK CITY: Only Brooklyn and Queens Counties  
SUFFOLK COUNTY: Entire County

WAGES: (per hour)

7/01/02

## Building:

Plasterer/Traditional.....\$ 31.66

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OVERTIME PAY: See ( C, E2, 0 )

**HOLIDAYS:**

Paid: See ( 1 ) on HOLIDAY PAGE  
Overtime: See ( 5, 6, 8, 11, 13, 25 )

APPRENTICES: ( 1 ) year terms at the following wage rates.

First year:	1st 6 months	2nd 6 months
	40%	45%
Second year:	1st 6 months	2nd 6 months
	55%	60%
Third year:	1st 6 months	2nd 6 months
	70%	75%

SUPPLEMENTAL BENEFITS: ( per hour worked )

Journeyman .....	\$ 15.16
Appr. 1st term .....	6.15
Appr. 2nd term .....	6.94
Appr. 3rd term .....	8.50
Appr. 4th term .....	9.29
Appr. 5th term .....	10.85
Appr. 6th term .....	11.64

9-530

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Mason - Plasterer

NEW YORK CITY: Only Manhattan, Staten Island and Bronx counties.

WAGES: (per hour)                      7/01/02

Building:  
Plasterer/Traditional.....\$ 31.66

OVERTIME PAY: See ( C, E2, 0 )

**HOLIDAYS:**

PAID: See ( 1 ) on HOLIDAY PAGE.  
OVERTIME: See ( 5, 6, 8, 11, 13, 25 )

APPRENTICES: ( 1 ) year terms at the following percentage of Journeyman's wage.

First year:	1st 6 months	2nd 6 months
	40%	45%
Second year:	1st 6 months	2nd 6 months
	55%	60%
Third year:	1st 6 months	2nd 6 months
	70%	75%

SUPPLEMENTAL BENEFITS: ( per hour worked )

Journeyman .....	\$ 15.55
Appr. 1st term .....	6.15
Appr. 2nd term .....	6.94

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Appr. 3rd term ..... 8.50  
Appr. 4th term ..... 9.29  
Appr. 5th term ..... 10.85  
Appr. 6th term ..... 11.64

9-530

Updated 10/01/2002

-----  
Mason - Pointer/Caulker/Cleaner

NASSAU COUNTY: Entire County  
NEW YORK CITY: Entire 5 Boroughs  
SUFFOLK COUNTY: Entire County

WAGES (per hour) 7/01/02

Pointer, Cleaner, &  
Caulker (Mason).....\$ 31.87

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

HOLIDAYS:

Paid: See ( 1 ) on HOLIDAY PAGE.

Overtime: See ( 5, 6, 25, 26 ) on HOLIDAY PAGE.

APPRENTICES: ( 1 ) year terms at the following wage rates.

1st	2nd	3rd	4th
\$16.20	19.90	24.25	29.60

SUPPLEMENTAL BENEFITS: (per hour worked)

Journeyman .....	\$ 13.25
Appr 1st term .....	2.50
Appr 2nd term .....	4.50
Appr 3rd term .....	6.50
Appr 4th term .....	6.50

9-1PCC

Updated 10/01/2002

-----  
Mason - Skim Coater

NEW YORK CITY: Entire 5 Boroughs

WAGES: (per hour) 7/01/02

Journeyman.....\$ 28.50

OVERTIME PAY: See ( C, E2, O ) on OVERTIME PAGE.

HOLIDAYS:

Paid: See ( 1 ) on HOLIDAY PAGE.

Overtime: See ( 5, 6, 8, 10, 11, 13, 18 , 19 , 26 ) on HOLIDAY PAGE.

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

1st	2nd	3rd	4th	5th	6th
40%	45%	55%	60%	70%	75%

SUPPLEMENTAL BENEFITS: (per hour worked)

Journeyman.....	\$ 14.55
Appr 1st term .....	5.75
Appr 2nd term .....	6.48
Appr 3rd term .....	7.95
Appr 4th term .....	8.68
Appr 5th term .....	10.15
Appr 6th term .....	10.88

9-530 Z1

Updated 10/01/2002

-----  
Mason - Stone Setters

NASSAU COUNTY: Entire County  
 NEW YORK CITY: Entire County  
 SUFFOLK COUNTY: Entire County

WAGES: (per hour) 7/01/00 7/01/01

Stone Setter.....	\$ 41.19	addit. \$2.24/hr.
Stone Tender.....	28.75	addit. \$1.45/hr.

OVERTIME PAY: See ( A, 0\* ) on OVERTIME PAGE.

\* first 7 hours on Sat. at time and a half.

\* first 2 hours on weekdays at time and a half.

HOLIDAYS:

Paid: See ( 18 ) on HOLIDAY PAGE.

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

APPRENTICES: ( 750 hour ) terms at the following percentage of journeyman's wage.

1st.	2nd.	3rd.	4th.	5th.	6th.
50%	60%	70%	80%	90%	100%

SUPPLEMENTAL BENEFITS: (per hour paid)

Stone Setter.....	\$ 17.33
Stone Tender.....	9.07
1st thru 3rd term Appr..	10.96
All other Apprs .....	17.33

9-1Stn

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-----  
Mason - Tile Layer Helper and Finisher

NASSAU COUNTY: Entire County  
 NEW YORK CITY: Entire 5 Boroughs

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SUFFOLK COUNTY: Entire County

WAGES: (per hour)

12/01/99

Building:

Tile Layer Helper

&amp; Finisher.....\$ 26.24

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

HOLIDAYS:

Paid: See ( 1 ) on HOLIDAY PAGE.

Overtime: See ( 5, 6, 8, 10, 11, 15, 16 ) on HOLIDAY PAGE.

SUPPLEMENTAL BENEFITS: (per hour worked)

\$ 12.48

9-7/88

Updated 10/01/2002

-----  
Metal Polisher

ALBANY COUNTY:	Entire County	ONEIDA COUNTY:	Entire County
ALLEGANY COUNTY:	Entire County	ONONDAGA COUNTY:	Entire County
BROOME COUNTY:	Entire County	ONTARIO COUNTY:	Entire County
CATTARAUGUS COUNTY:	Entire County	ORANGE COUNTY:	Entire County
CAYUGA COUNTY:	Entire County	ORLEANS COUNTY:	Entire County
CHAUTAUQUA COUNTY:	Entire County	OSWEGO COUNTY:	Entire County
CHEMUNG COUNTY:	Entire County	OTSEGO COUNTY:	Entire County
CHENANGO COUNTY:	Entire County	PUTNAM COUNTY:	Entire County
CLINTON COUNTY:	Entire County	RENSSELAER COUNTY:	Entire County
COLUMBIA COUNTY:	Entire County	ROCKLAND COUNTY:	Entire County
CORTLAND COUNTY:	Entire County	SARATOGA COUNTY:	Entire County
DELAWARE COUNTY:	Entire County	SCHENECTADY COUNTY:	Entire County
DUTCHESS COUNTY:	Entire County	SCHOHARIE COUNTY:	Entire County
ERIE COUNTY:	Entire County	SCHUYLER COUNTY:	Entire County
ESSEX COUNTY:	Entire County	SENECA COUNTY:	Entire County
FRANKLIN COUNTY:	Entire County	STEBEN COUNTY:	Entire County
FULTON COUNTY:	Entire County	ST. LAWRENCE COUNTY:	Entire County
GENESEE COUNTY:	Entire County	SUFFOLK COUNTY:	Entire County
GREENE COUNTY:	Entire County	SULLIVAN COUNTY:	Entire County
HAMILTON COUNTY:	Entire County	TIOGA COUNTY:	Entire County
HERKIMER COUNTY:	Entire County	TOMPKINS COUNTY:	Entire County
JEFFERSON COUNTY:	Entire County	ULSTER COUNTY:	Entire County
LEWIS COUNTY:	Entire County	WARREN COUNTY:	Entire County
LIVINGSTON COUNTY:	Entire County	WASHINGTON COUNTY:	Entire County
MADISON COUNTY:	Entire County	WAYNE COUNTY:	Entire County
MONROE COUNTY:	Entire County	WESTCHESTER COUNTY:	Entire County
MONTGOMERY COUNTY:	Entire County	WYOMING COUNTY:	Entire County
NASSAU COUNTY:	Entire County	YATES COUNTY:	Entire County
NEW YORK CITY:	Entire 5 Boroughs		
NIAGARA COUNTY:	Entire County		

WAGES: (per hour)

6/01/02

6/01/03

6/01/04

Metal Polisher.....\$ 20.42

21.13

21.98

All workers shall be paid a premium in an amount equal to twenty ( 20% ) per

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cent of their basic straight time rate of pay for all time worked on hanging scaffolds and on standing scaffolds while working more than 28 feet off the ground, such premium to be paid on top of their straight time or overtime, whichever is applicable.

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

## HOLIDAY:

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

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

APPRENTICES: 55% of Basic Polisher Rate (\*)

SUPPLEMENTAL BENEFITS: (% of Total Wages)

Journeyman & Apprentice 55% of Wages

9 - 8A/28A

Updated 10/01/2002

Operating Engineer - Building Double Drum

NEW YORK CITY: Entire 5 Boroughs

WAGES: (per hour)

7/01/02

Building:  
Double Drum.....\$ 40.83  
Cranes, Stone Derrick,  
Boom Trucks..... 42.49  
Fork Lifts, Hoists  
Concrete Pump, Plaster  
Buckets & Platforms..... 37.06  
All Engine Driven  
Equipment, Compressors..... 29.45

## CRANES: Crawler Or Truck

100' to 149' Boom.....	\$ 1.75	Addit. Per Hr. To Above Crane Rates.
150' to 249' " .....	2.00	" " " "
250' to 349' " .....	2.25	" " " "
350' to 450' " .....	2.75	" " " "
Tower Crane .....	2.00	" " " "

OVERTIME PAY: See ( C, O, V\* ) ON OVERTIME PAGE.

\* \$ 3.20 of below benefits paid for hours worked.

## HOLIDAYS:

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

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

APPRENTICES: ( 1 ) year terms at the following wage rates.

1st term	\$ 15.39
2nd term	19.24
3rd term	23.08



SUPPLEMENTAL BENEFITS: (per hour paid)

Journeyman..... \$ 18.35  
Apprentice..... 10.85

9-14/14B

Updated 10/01/2002

-----  
Operating Engineer - Building Maintenance

NEW YORK CITY: Entire 5 Boroughs

WAGES: (per hour)

7/01/01

Building:  
Maintenance Engineer.....\$ 35.37  
Maintenance Engineer On  
Pumps, Generators, Mixers  
& Heaters..... 28.00  
Oilers..... 33.74  
Oilers On Backhoes,  
Crawler Cranes &  
Compressors..... 25.66

OVERTIME PAY: See ( D, O, V ) ON OVERTIME PAGE.

HOLIDAYS:

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

APPRENTICES: ( 1 ) year terms at the following wage rates.

1st 2nd 3rd 4th  
\$ 12.84 16.05 17.66 19.26

SUPPLEMENTAL BENEFITS: (per hour paid)

Journeyman .....\$ 17.20  
Apprentice ..... 9.70

9-15Ab

Updated 10/01/2002

-----  
Operating Engineer - Heavy Highway

NEW YORK CITY: Entire 5 Boroughs

WAGES: (per hour)

7/01/01

Heavy and Highway:  
Backhoes.....\$ 35.17  
Barrier Movers..... 35.17

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Boom Truck.....	35.17
Bulldozers.....	35.17
Cherry Pickers.....	35.17
Concrete Breaker.....	35.17
Curb Pavers.....	35.17
Groover.....	35.17
Loaders.....	35.17
P-811 Track Removal Machine or Similar.....	35.17
Dual Purpose Trucks.....\$	33.43
Finishing Machines.....	33.43
Fireman.....	33.43
Forklifts.....	33.43
Post Hole Diggers.....	33.43
Rollers (5 tons and under).....	33.43
Tractors.....	33.43
Tugger Hoists.....	33.43
Generators.....	23.51
Water Pumps.....	24.08
Tower Crane Maint. Engineer.....	45.63
Cherry Picker (20 Ton).....	36.22
Oiler.....	31.67

OVERTIME PAY: See ( D, O, V ) ON OVERTIME PAGE.

## HOLIDAYS:

Paid: See ( 5, 6, 7, 11, 12 ) on HOLIDAY PAGE.

Overtime: See ( 5, 6, 7, 11, 12 ) on HOLIDAY PAGE.

APPRENTICES: ( 1 ) year terms at the following wage rates.

1st	2nd	3rd	4th
\$12.84	16.05	17.66	19.26

## SUPPLEMENTAL BENEFITS: (per hour paid)

Journeyman .....	\$ 17.70
Apprentices .....	9.70

9-15-15A/H/H

Updated 10/01/2002

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Operating Engineer - Marine Construction

ALBANY COUNTY:	Entire County	ONEIDA COUNTY:	Entire County
ALLEGANY COUNTY:	Entire County	ONONDAGA COUNTY:	Entire County
BROOME COUNTY:	Entire County	ONTARIO COUNTY:	Entire County
CATTARAUGUS COUNTY:	Entire County	ORANGE COUNTY:	Entire County
CAYUGA COUNTY:	Entire County	ORLEANS COUNTY:	Entire County
CHAUTAUQUA COUNTY:	Entire County	OSWEGO COUNTY:	Entire County
CHEMUNG COUNTY:	Entire County	OTSEGO COUNTY:	Entire County
CHENANGO COUNTY:	Entire County	PUTNAM COUNTY:	Entire County
CLINTON COUNTY:	Entire County	RENSSELAER COUNTY:	Entire County
COLUMBIA COUNTY:	Entire County	ROCKLAND COUNTY:	Entire County
CORTLAND COUNTY:	Entire County	SARATOGA COUNTY:	Entire County
DELAWARE COUNTY:	Entire County	SCHENECTADY COUNTY:	Entire County
DUTCHESS COUNTY:	Entire County	SCHOHARIE COUNTY:	Entire County
ERIE COUNTY:	Entire County	SCHUYLER COUNTY:	Entire County
ESSEX COUNTY:	Entire County	SENECA COUNTY:	Entire County

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FRANKLIN COUNTY:	Entire County	STEUBEN COUNTY:	Entire County
FULTON COUNTY:	Entire County	ST. LAWRENCE COUNTY:	Entire County
GENESEE COUNTY:	Entire County	SUFFOLK COUNTY:	Entire County
GREENE COUNTY:	Entire County	SULLIVAN COUNTY:	Entire County
HAMILTON COUNTY:	Entire County	TIOGA COUNTY:	Entire County
HERKIMER COUNTY:	Entire County	TOMPKINS COUNTY:	Entire County
JEFFERSON COUNTY:	Entire County	ULSTER COUNTY:	Entire County
LEWIS COUNTY:	Entire County	WARREN COUNTY:	Entire County
LIVINGSTON COUNTY:	Entire County	WASHINGTON COUNTY:	Entire County
MADISON COUNTY:	Entire County	WAYNE COUNTY:	Entire County
MONROE COUNTY:	Entire County	WESTCHESTER COUNTY:	Entire County
MONTOMERY COUNTY:	Entire County	WYOMING COUNTY:	Entire County
NASSAU COUNTY:	Entire County	YATES COUNTY:	Entire County
NEW YORK CITY:	Entire County		
NIAGARA COUNTY:	Entire County		

## WAGES: (per hour)

DIPPER & CLAMSHELL DREDGES	7-01-02- 9-30-02	10-01-02- 9-30-03
CLASS A:		
Operator.....	\$ 27.45	\$ 28.07
CLASS B:		
Operator II.....	\$ 22.53	\$ 23.04
Engineer.....	24.17	24.72
Boat Master.....	22.73	23.24
CLASS C:		
Maintenance Eng.....	\$ 23.07	\$ 23.59
Mate.....	21.51	21.99
Drag Barge Operator.....	21.51	21.99
Welder.....	22.71	23.22
Boat Capt.....	21.66	22.15
Chief of Party.....	21.51	21.99
CLASS D:		
Oiler.....	\$ 18.18	\$ 18.59
Scowman.....	17.49	17.88
Rodman.....	17.49	17.88
Tug Deckhand.....	17.73	18.13
Deckhand.....	17.73	18.13
HYDRAULIC DREDGES	7-01-02- 9-30-02	10-01-02- 9-30-03
CLASS A:		
Leverman.....	\$ 26.95	\$ 27.56
CLASS B:		
Leverman II.....	\$ 22.53	\$ 23.04
Engineer.....	23.64	24.17
Derrick Operator.....	23.64	24.17
Chief Mate.....	23.29	23.82
Chief Welder.....	23.94	24.48
Electrician.....	22.92	23.43
Fill Placer.....	23.29	23.82
Asst. Fill Placer.....	21.32	21.80
Boat master.....	22.72	23.23
CLASS C:		
Maintenance Eng.....	\$ 23.07	\$ 23.59
Mate.....	21.51	21.99
Drag Barge Operator.....	21.51	21.99
Welder Dredge.....	22.70	23.21
Spider Barge Operator.....	22.50	23.01

Prevailing Rate Schedule

New York State Department of Labor

---

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NEW YORK

2002

Boat Capt.....	21.66	22.15
Chief of Party.....	21.51	21.99
CLASS D:		
Oiler.....	\$ 18.18	\$ 18.59
Shoreman.....	17.50	17.90
Rodman.....	17.50	17.90
Deckhand.....	17.50	17.90
Tug Deckhand.....	17.73	18.13

OVERTIME: See ( B, F, R ) on OVERTIME PAGE.

HOLIDAY:

Paid: See ( 5, 6, 8, 15, 26 ) on HOLIDAY PAGE.

Overtime: See ( 5, 6, 8, 15, 26 ) on OVERTIME PAGE.

SUPPLEMENTAL BENEFITS: (per hour worked)

"The following SUPPLEMENTAL BENEFITS apply to ALL categories"

	7-01-02- 9-30-02	10-01-02- 9-30-03
All Class A & B .....	\$ 6.20	\$ 6.45
	plus 7%	plus 7%
	of wage	of wage
(overtime hours add) .....	\$ 1.25	\$ 1.25
All Class C .....	\$ 5.60	\$ 5.85
	plus 7%	plus 7%
	of wage	of wage
(overtime hours add) .....	\$ 0.95	\$ 0.95
All Class D .....	\$ 5.00	\$ 5.25
	plus 7%	plus 7%
	of wage	of wage
(overtime hours add) .....	\$ 0.65	\$ 0.65

4-25a

Updated 10/01/2002

Operating Engineer - Sewer

NEW YORK CITY: Entire 5 Boroughs

EQUIPMENT COVERED: Jet-Rodder/Vacuum Truck, Flusher, Sewer Rodder, Stetco Hoist and similar, Sewer Winch/Tugger Hoist and similar, Vacall/Vactor, Closed Circuit Television Inspection Equipment, Chemical Grouting Equipment and similar, John Beame, Meyers and similar.

WAGES: (per hour)

	1/01/00	7/01/00
Maintenance Engineer.....	\$ 32.31	Addit. \$2.13/hr.
Asst. Maint. Engineer.....	22.65	Addit. \$1.49/hr.

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OVERTIME PAY: See ( D, O, V ) ON OVERTIME PAGE.

## HOLIDAYS:

Paid: See ( 5, 6, 9, 11, 12, 15, 25 ) on HOLIDAY PAGE.

Overtime: See ( 5, 6, 9, 11, 12, 15, 25 ) on HOLIDAY PAGE.

## APPRENTICES: ( 1 ) year terms at the following wage rates.

1st	2nd	3rd	4th
\$ 13.01	16.06	17.59	19.11

## SUPPLEMENTAL BENEFITS: (per hour paid)

Journeyman.....	\$ 16.15
Apprentice.....	8.90

9-15

Updated 10/01/2002

## Operating Engineer -Trenchless Pipeline Rehabilitation

ALBANY COUNTY:	Entire County	ONEIDA COUNTY:	Entire County
ALLEGANY COUNTY:	Entire County	ONONDAGA COUNTY:	Entire County
BROOME COUNTY:	Entire County	ONTARIO COUNTY:	Entire County
CATTARAUGUS COUNTY:	Entire County	ORANGE COUNTY:	Entire County
CAYUGA COUNTY:	Entire County	ORLEANS COUNTY:	Entire County
CHAUTAUQUA COUNTY:	Entire County	OSWEGO COUNTY:	Entire County
CHEMUNG COUNTY:	Entire County	OTSEGO COUNTY:	Entire County
CHENANGO COUNTY:	Entire County	PUTNAM COUNTY:	Entire County
CLINTON COUNTY:	Entire County	RENSSELAER COUNTY:	Entire County
COLUMBIA COUNTY:	Entire County	ROCKLAND COUNTY:	Entire County
CORTLAND COUNTY:	Entire County	SARATOGA COUNTY:	Entire County
DELAWARE COUNTY:	Entire County	SCHENECTADY COUNTY:	Entire County
DUTCHESS COUNTY:	Entire County	SCHOHARIE COUNTY:	Entire County
ERIE COUNTY:	Entire County	SCHUYLER COUNTY:	Entire County
ESSEX COUNTY:	Entire County	SENECA COUNTY:	Entire County
FRANKLIN COUNTY:	Entire County	STEBEN COUNTY:	Entire County
FULTON COUNTY:	Entire County	ST. LAWRENCE COUNTY:	Entire County
GENESEE COUNTY:	Entire County	SUFFOLK COUNTY:	Entire County
GREENE COUNTY:	Entire County	SULLIVAN COUNTY:	Entire County
HAMILTON COUNTY:	Entire County	TIOGA COUNTY:	Entire County
HERKIMER COUNTY:	Entire County	TOMPKINS COUNTY:	Entire County
JEFFERSON COUNTY:	Entire County	ULSTER COUNTY:	Entire County
LEWIS COUNTY:	Entire County	WARREN COUNTY:	Entire County
LIVINGSTON COUNTY:	Entire County	WASHINGTON COUNTY:	Entire County
MADISON COUNTY:	Entire County	WAYNE COUNTY:	Entire County
MONROE COUNTY:	Entire County	WESTCHESTER COUNTY:	Entire County
MONTOMERY COUNTY:	Entire County	WYOMING COUNTY:	Entire County
NASSAU COUNTY:	Entire County	YATES COUNTY:	Entire County
NEW YORK CITY:	Entire County		
NIAGARA COUNTY:	Entire County		

On Contracts for Inspection Only: These rates Do Not APPLY

OPERATING ENGINEER - Trenchless Pipeline Rehabilitation

7-01-02-  
6-30-03

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

0206747  
NEW YORK

2002

Lead Tec TV Crew..... \$31.74  
Wet Out Tec..... \$31.74  
Technician..... \$30.48  
Boiler Operator..... \$31.10  
Yard rate..... \$26.70  
Yard Mechanic..... \$31.10

NOTE: PREMIUM PAY 20% on straight time hours for NEW YORK STATE D.O.T.  
and other GOVERNMENTAL MANDATED off-shift work.

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

## HOLIDAYS:

Paid: See ( 5, 6, 7, 8, 11 ) on HOLIDAY PAGE.\*\*  
\*\* must work day before & day after or receive 2 hrs per intermittent day  
Overtime: See ( 5, 6, 7, 8, 11 ) on OVERTIME PAGE.\*\*

APPRENTICE ( 1 ) year terms at the following rates;

1st yr..... \$ 18.47  
2nd yr..... 19.21  
3rd yr..... 19.79

## SUPPLEMENTAL BENEFITS: (per hour worked)

Journeyman..... \$ 23.54 Note  
Note: OVERTIME Journeyman. 22.60  
Apprentice..... 13.89 Note  
Note: OVERTIME Apprentice 5.60

4-138

Updated 10/01/2002

Painter - Bridge/Structural Steel

PUTNAM COUNTY: Entire county

WESTCHESTER COUNTY: Entire county

\*Including the Tappan Zee and Bear Mountain Bridges.

## WAGES: (per hour)

	7/01/02	10/01/02
STEEL:		
" Bridge.....	\$ 37.00	38.75
" Spray.....	41.00	43.75
" Sandblasting.....	41.00	43.75
" Power Tool.....	41.00	43.75

OVERTIME PAY: See ( A, F, R ) on OVERTIME PAGE.

## HOLIDAYS:

Paid: See ( 1 ) on HOLIDAY PAGE.

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NEW YORK

2002

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

APPRENTICES: (1) year terms at the following percentage of Journeyman's wage.

1st	2nd	3rd
40%	60%	80%

SUPPLEMENTAL BENEFITS: (per hour worked)

48% of wages	48.5% of wages
+	+
\$3.50 per hr.	\$4.00 per hr.

9 DC-9

Updated 10/01/2002

Painter - Brush/Spray

NASSAU COUNTY: Entire County  
NEW YORK CITY: Entire 5 Boroughs  
PUTNAM COUNTY: Entire County  
SUFFOLK COUNTY: Entire County  
WESTCHESTER COUNTY: Entire County

WAGES: (per hour)

5/01/02

Brush.....	\$ 30.25
Spray & Scaffold.....	33.25
Fire Escape.....	33.25
Decorator.....	33.25
Paperhanger.....	33.70

OVERTIME PAY: See ( A, H ) on OVERTIME PAGE

HOLIDAYS:

Paid: See ( 1 ) on HOLIDAY PAGE

Overtime: See ( 4, 5, 6, 25 ) on HOLIDAY PAGE

APPRENTICES: Indentured after 5/31/93 ( 1 ) year terms at the following percentage of journeyman's wage.

1st	2nd	3rd	4th
\$11.30	15.13	18.15	24.20

SUPPLEMENTAL BENEFITS: ( per hour worked )

Paperhanger.....	\$ 17.66
All others.....	\$ 15.42

Apprentices:

1st Year.....	\$ 5.65
2nd Year.....	7.76
3rd Year.....	10.13
4th Year.....	14.40

9-NYDC9

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

0206747  
NEW YORK

2002

Updated 10/01/2002

Painter - Drywall Taper

NEW YORK CITY: Entire 5 Boroughs

WAGES: (per hour)

1/02/02

Drywall Taper.....\$ 36.86

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

HOLIDAYS:

Paid: See ( 1 ) on HOLIDAY PAGE.

Overtime: See ( 5, 6, 8, 10, 11, 18, 19 ) ON HOLIDAY PAGE.

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

1st	2nd	3rd	4th
40%	55%	70%	85%

SUPPLEMENTAL BENEFITS: (per hour worked)

Journeyman.....	\$ 12.35
Appr 1st term.....	4.94
Appr 2nd term.....	6.79
Appr 3rd term.....	8.64
Appr 4th term.....	10.50

9-1974

Updated 10/01/2002

Painter - Highway Striping

ALBANY COUNTY:	Entire County
CLINTON COUNTY:	Entire County
COLUMBIA COUNTY:	Entire County
DUTCHESS COUNTY:	Entire County
ESSEX COUNTY:	Entire County
FRANKLIN COUNTY:	Entire County
FULTON COUNTY:	Entire County
GREENE COUNTY:	Entire County
HAMILTON COUNTY:	Entire County
MONTGOMERY COUNTY:	Entire County
NASSAU COUNTY:	Entire County
NEW YORK CITY:	Entire 5 Boroughs
ORANGE COUNTY:	Entire County
PUTNAM COUNTY:	Entire County
RENSSELAER COUNTY:	Entire County
ROCKLAND COUNTY:	Entire County
SARATOGA COUNTY:	Entire County
SCHENECTADY COUNTY:	Entire County



0206747  
NEW YORK

2002

SCHOHARIE COUNTY: Entire County  
SUFFOLK COUNTY: Entire County  
SULLIVAN COUNTY: Entire County  
ULSTER COUNTY: Entire County  
WARREN COUNTY: Entire County  
WASHINGTON COUNTY: Entire County  
WESTCHESTER COUNTY: Entire County

WAGES: (per hour)

7/01/02

Painter (Striping-Highway):

Striping-Machine Operator.....\$ 22.57  
" Helper..... 17.99  
Linerman..... 27.09

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

HOLIDAYS:

Paid: See ( 2, 8, 11, 12, 15, 16, 17, 20 ) ON HOLIDAY PAGE.  
Overtime: See ( 2, 8, 11, 12, 15, 16, 17, 20, 21, 22 ) ON HOLIDAY PAGE.

APPRENTICES: (1) year terms at the following rates of journeyman's wage.

1st	2nd	3rd	4th	5th
\$12.00	\$12.00	\$13.00	\$14.00	\$15.00

SUPPLEMENTAL BENEFITS: (per hour paid)

26% of wage  
+  
\$ .50

9-8a/28a  
(230)

Updated 10/01/2002

Plumber

NEW YORK CITY: Entire 5 Boroughs

WAGES: (per hour)

	1/01/02	7/01/02	1/01/03
Plumber.....	\$ 39.91	Addit. \$1.50 per hour	Addit. \$1.75 per hour

On tower work, bridges, elevated highway, or buildings, where pipe is being installed, fifty (50) or more feet vertically in a free drop from its base, an additional \$1.00 per hr.

OVERTIME PAY: See ( C, O, V ) on OVERTIME PAGE.

HOLIDAYS:

Paid: See ( 1 ) on HOLIDAY PAGE.  
Overtime: See ( 5, 6, 11, 15, 16, 25 ) on HOLIDAY PAGE.

APPRENTICES: ( 1/2 ) year terms at the following wage.

New York State Prevailing Rate Schedule Department of Labor  
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2002

1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
\$8.11	8.11	12.19		14.29		17.14		18.54	29.93

## SUPPLEMENTAL BENEFITS: (per hour worked)

Journeyman.....\$ 21.41 +  
6.00 per day  
Appr 1st term ..... 0.66  
Appr 2nd term ..... 2.66  
All other Apprs ..... 8.03

9-1

Updated 10/01/2002

-----  
Roofer

DUTCHESS COUNTY: Entire County  
NEW YORK CITY: Entire 5 Boroughs  
ORANGE COUNTY: Entire County  
PUTNAM COUNTY: Entire County  
ROCKLAND COUNTY: Entire County  
SULLIVAN COUNTY: Entire County  
ULSTER COUNTY: Entire County  
WESTCHESTER COUNTY: Entire County

## WAGES: (per hour)

7/01/02

Roofer/Waterproofer.....\$ 29.08

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

## HOLIDAYS:

Paid: See ( 1 ) on HOLIDAY PAGE.

Overtime: See ( 5, 6, 13, 25 ) on HOLIDAY PAGE.

APPRENTICES: ( 1 ) year terms at the following percentage of Journeyman's wage.

1st	2nd	3rd
40%	50%	75%

## SUPPLEMENTAL BENEFITS: (per hour worked)

Journeyman .....\$ 18.78  
Appr..... Wage %  
of same

9-8R

Updated 10/01/2002

-----  
Sheetmetal Worker

NASSAU COUNTY: Entire County  
NEW YORK CITY: Entire 5 Boroughs  
SUFFOLK COUNTY: Entire County

## WAGES: (per hour)

7-01-02-  
6-30-03

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2002

Sheetmetal Worker.....\$ 36.17

For Temporary Operation or  
Maintenance of Fans:.....80% of Sheetmetal Rate

OVERTIME PAY: See ( C, E2, O, V ) on OVERTIME PAGE  
( D, E2, O, V ) on Fan Maintenance

HOLIDAYS:

Paid: See ( 1 ) on HOLIDAY PAGE.

Overtime: See ( 5, 6, 11, 12, 15, 25, 26 ) on holiday page.

APPRENTICES: ( 1/2 ) year terms at the following percent of journeyman rate

1st	2nd	3rd	4th	5th	6th	7th	8th
30%	35%	40%	45%	50%	55%	60%	70%

SUPPLEMENTAL BENEFITS: (per hour worked)

Journeyman	\$ 21.79
Appr 1st term	6.82
Appr 2nd term	7.89
Appr 3rd term	8.91
Appr 4th term	9.97
Appr 5th term	11.14
Appr 6th term	13.71
Appr 7th term	15.18
Appr 8th term	17.78

4-28

Updated 10/01/2002

Sheetmetal Worker - Sign Erector

NASSAU COUNTY: Entire County  
NEW YORK CITY: Entire 5 Boroughs  
ROCKLAND COUNTY: Entire County  
SUFFOLK COUNTY: Entire County  
WESTCHESTER COUNTY: Entire County

WAGES: (per hour) 7/01/02

Sign Erector.....\$ 32.50

\*NOTE: Overhead highway signs and structurally supported signs (See Iron  
Worker Classification)

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

HOLIDAYS:

Paid: See ( 5, 6, 10, 11, 12, 16 ) on HOLIDAY PAGE.

Overtime: See ( 5, 6, 10, 11, 12, 16 ) on HOLIDAY PAGE.

## Prevailing Rate Schedule

New York State

Department of Labor

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0206747  
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2002

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

1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
35%	40%	45%	50%	55%	60%	65%	70%	75%	80%

## SUPPLEMENTAL BENEFITS:

Journeyman .....	\$ 21.63
App 1st term .....	5.22
App 2nd term .....	5.88
App 3rd term .....	6.54
App 4th term .....	7.21
App 5th term .....	9.87
App 6th term .....	10.54
App 7th term .....	13.19
App 8th term .....	14.06
App 9th term .....	16.52
App 10th term .....	17.18

9-137

Updated 10/01/2002

-----  
Steamfitter - Refrigeration

NASSAU COUNTY: Entire County  
 NEW YORK CITY: Entire 5 Boroughs  
 SUFFOLK COUNTY: Entire County

WAGES: (per hour)

7/01/02

Steamfitter.....\$ 26.30

Refrigeration, A/C, Oil Burner and Stoker Service and Installations,  
 limited on Refrigeration to combined compressors up to five (5) horsepower,  
 and on A/C Heating and Air Cooling to combined compressors up to ten (10)  
 horsepower.

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

## HOLIDAYS:

Paid: See ( 2, 6, 9, 10, 11, 15, 17, 26, Memorial Day ) on HOLIDAY PAGE.

Overtime: \* ( 2, 6, 9, 15, 17 )  
 \*\* ( 10, 11, 26, Memorial Day )

APPRENTICES: ( 1 ) year terms at the following wage.

1st 6 mo	2nd 6 mo	2nd yr	3rd yr	4th yr
\$7.93	12.78	15.38	17.91	21.60

## SUPPLEMENTAL BENEFITS: (per hour worked)

Journeyman..... \$ 7.36

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Appr 1st 6 months .....	5.60
Appr 2nd 6 months .....	5.88
Appr 2nd yr. term .....	6.15
Appr 3rd yr. term .....	6.46
Appr 4th yr. term .....	6.88

9-638B

Updated 10/01/2002

-----  
Steamfitter - Sprinklerfitter

NASSAU COUNTY: Entire County  
NEW YORK CITY: Entire 5 Boroughs  
SUFFOLK COUNTY: Entire County

WAGES: (per hour)

7/01/02

Steam Fitter.....\$ 36.57  
Sprinkler Fitter..... 36.57

For Work on Temporary Heat  
& Air Conditioning.....\$ 27.79

OVERTIME PAY: See ( C, O, V ) on OVERTIME PAGE.

HOLIDAYS:

Paid: See ( 1 ) on HOLIDAY PAGE.

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

APPRENTICES: ( 1 ) year terms at the following percentage of Journeyman's wage.

1st.	2nd.	3rd.	4th.	5th.
40%	50%	65%	80%	85%

SUPPLEMENTAL BENEFITS: (per hour paid)

Journeyman..... \$ 24.00  
+ .32 per hour worked

For Work on Temporary..... \$ 19.48  
Heat & Air conditioning + .32 per hour worked

Apprentices..... term percentage of \$24.00  
plus .32 per hour worked

9-638A

Updated 10/01/2002

-----  
Survey Crew - Building

NASSAU COUNTY: Entire County  
NEW YORK CITY: Entire 5 Boroughs  
SUFFOLK COUNTY: Entire County

WAGES: (per hour)

Prevailing Rate Schedule

New York State Department of Labor

---

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

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NEW YORK

2002

	1/01/00	7/01/00	7/01/01
Survey Rates-Building:			
Party Chief.....	\$ 32.77	Addit. \$3.01/hr.	Addit. \$3.01/hr.
Instrument Man.....	27.19	Addit. \$1.84/hr.	Addit. \$1.84/hr.
Rodman.....	18.54	Addit. \$1.31/hr.	Addit. \$1.31/hr.

OVERTIME PAY: See ( A, E\*, Q, V ) ON OVERTIME PAGE.

\*Doubletime paid on the 8th hour on Saturday.

HOLIDAYS:

Paid: See ( 5, 6, 8, 11, 12, 15, 25 ) on HOLIDAY PAGE.

Overtime: See ( 5, 6, 8, 11, 12, 25 ) on HOLIDAY PAGE.

SUPPLEMENTAL BENEFITS: (per hour paid)

Journeyman .....\$ 15.40

9-15Db

Updated 10/01/2002

Survey Crew - Heavy Highway

DUTCHESS COUNTY: Entire County  
 NASSAU COUNTY: Entire County  
 NEW YORK CITY: Entire 5 Boroughs  
 PUTNAM COUNTY: Entire County  
 SUFFOLK COUNTY: Entire County  
 WESTCHESTER COUNTY: Entire County

WAGES: (per hour)

	1/01/00	7/01/00	7/01/01
Survey Rates-Heavy/Highway:			
Party Chief.....	\$ 32.11	Addit. \$3.22/hr.	Addit. \$3.22/hr.
Instrument Man.....	24.90	Addit. \$1.74/hr.	Addit. \$1.74/hr.
Rodman.....	21.81	Addit. \$1.43/hr.	Addit. \$1.43/hr.

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

\*Doubletime paid on the 9th hour on Saturday.

HOLIDAYS:

Paid: See ( 5, 6, 7, 11, 12 ) on HOLIDAY PAGE.

Overtime: See ( 5, 6, 7, 11, 12 ) on HOLIDAY PAGE.

SUPPLEMENTAL BENEFITS: (per hour paid)

Journeyman.....\$ 15.40

9-15Dh

Updated 10/01/2002

Survey Crew Consulting

New York State

## Prevailing Rate Schedule

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NEW YORK

2002

DUTCHESS COUNTY: Only the portion south of the north city line in Poughkeepsie.  
 NASSAU COUNTY: Entire county  
 NEW YORK CITY: Entire 5 boroughs  
 PUTNAM COUNTY: Entire county  
 SUFFOLK COUNTY: Entire county  
 WESTCHESTER COUNTY: Entire county

Feasibility and preliminary design surveying, line and grade surveying for inspection or supervision of construction when performed under a Consulting Engineer agreement.

WAGES: (per hour)

7/01/01

7/01/02

Survey Rates:

Party Chief.....\$ 25.91

Addt.

Instrument Man..... 21.58

\$.90

Rodman..... 18.83

Per Hour

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

\*Doubletime paid on the 9th hour on Saturday.

HOLIDAYS:

Paid: See ( 5, 6, 7, 11, 16 ) on HOLIDAY PAGE.

Overtime: See ( 5, 6, 7, 11, 16 ) on HOLIDAY PAGE.

SUPPLEMENTAL BENEFITS: (per hour paid)

Journeyman.....\$ 10.95

9-15dconsult

Updated 10/01/2002

Teamster - Building and Heavy Highway

NEW YORK CITY: Entire 5 Boroughs

WAGES: (per hour)

7/01/02

GROUP # 1: Excavation.....\$ 28.935

GROUP # 2: Euclid and Turnapull type trucks..... 29.50

Drivers of three-axle tractors and trailers, \$6.00 per day extra.

Drivers of heavy equipment and tag-along trailers, \$10.00 per day extra.

Drivers of boom trucks, \$8.00 per day extra.

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

HOLIDAYS:

Paid: See ( 5, 6, 11, 12, 15, 25 ) \* on HOLIDAY PAGE.

Overtime: See ( 11, 12, 15, 25 ) on OVERTIME PAGE (code R).

See ( 5, 6, 13 ) on OVERTIME PAGE ( code T )

\*(must work two days in holiday week)

SUPPLEMENTAL BENEFITS: (per hour worked)..... \$ 19.2025

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

0206747  
NEW YORK2002  
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4-282ny

Updated 10/01/2002  
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## Teamster - Demolition

NASSAU COUNTY: Entire County  
NEW YORK CITY: Entire 5 Boroughs  
SUFFOLK COUNTY: Entire County

WAGES: (per hour) 7/01/02

Truck Driver, Chauffeur  
or Loader/OperatorTrailers.....\$ 21.85  
Straight Jobs..... 21.65

OVERTIME PAY: See ( B, L, S, Sl,) on OVERTIME PAGE.

## HOLIDAYS:

Paid: See ( 5, 6, 7, 8, 11, 12, 26 ) on Holiday Page.  
"NOTE": Employee must work two days in Holiday weekSUPPLEMENTAL BENEFITS: (per hour worked)  
\$ 14.68

4-282.Demo

Updated 10/01/2002  
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## Welder

STATEWIDE: Applies to all counities.

WAGES (per hour)

7/01/2002

Welder..... (To be paid the rate of the mechanic performing the work)

Updated 10/01/2002  
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STATE OF NEW YORK  
DEPARTMENT OF LABOR  
Bureau of Public Work  
STATE OFFICE BUILDING CAMPUS  
ALBANY, N.Y. 12240

- Notice to ALL Contracting Agencies -

Your attention is directed to the following Amendment to Article 8, Section 220 (3-a) of the NYS Labor Law:

.....

Assembly Bill Number 1839, entitled:

"AN ACT to amend the Labor Law, in relation to signs posted at public works projects"

APPROVED:

This bill amends Section 220 (3-a) of the Labor Law to set forth specific requirements for signs at public work locations listing all prevailing wages specified in the contract. The bill mandates that such signs "be written in plain English and titled, in lettering no smaller than two inches in height and two inches in width." with the phrase "Prevailing Rate of Wages." The bill further requires that the sign be weatherproof. The bill takes effect on March 6, 2000. Signed into law on September 7, 1999.

.....

Ensuring that workers receive the appropriate wage when working on public work projects is a core mission for the Department of Labor ("Department"). This bill will assist the Department in carrying out this mission by educating workers on public work projects as to the applicable wage and supplements for each project.

On the reverse, please find the complete text of the Bill, which contains various other aspects of the law, which affect contracting agencies, contractors and subcontractors working on public work projects.

STATE OF NEW YORK

THE PEOPLE OF THE STATE OF NEW YORK, REPRESENTED IN SENATE AND ASSEMBLY, DO ENACT AS FOLLOWS:

1 Section 1 Paragraph a of subdivision 3-a of section 110 of the labor  
2 law as amended by chapter 565 of the law as of 1997, is amended to read  
3 as follows:  
4 a. It shall be the duty of the department of jurisdiction as defined  
5 in this section to ascertain from the plans and specifications for clas-  
6 sification of workmen, mechanics and laborers to be employed on such  
7 project. Such department shall file with the fiscal officer, as defined  
8 in this section, the classification of workmen, mechanics and laborers  
9 to be employed upon such public works project, together with a statement  
10 of the work to be performed by each such classification. From such  
11 statement it shall be the duty of the fiscal officer to make a proper  
12 classification of such workmen, mechanics and laborers taking into  
13 account whether the work is heavy and highway, building, sewer and  
14 water, tunnel work or residential and to make a determination of the  
15 schedules of wages and supplements to be paid or provided, as the case  
16 may be, therefore. The contractor and every sub-contractor on public  
17 works contracts shall post in a prominent and accessible place on the  
18 site (of the work) **WHERE THE WORK IS PERFORMED** a legible statement of  
19 all wage rates and supplements as specified in the contract to be paid  
20 or provided, as the case may be, for the various classes of mechanics,  
21 workmen, or laborers employed on the work **SUCH POSTED STATEMENT SHALL**  
22 **BE WRITTEN IN PLAIN ENGLISH AND TITLED, IN LETTERING NO SMALLER**  
23 **THAN TWO INCHES IN HEIGHT AND TWO INCHES IN WIDTH, WITH THE PHRASE**  
24 **'PREVAILING RATE OF WAGES'** **SUCH POSTED STATEMENT SHALL BE CONSTRUCTED**

EXPLANATION: Matter in *ITALICS* (underscored) is new. Matter in brackets  
( ) is old law to be omitted

LBD04:89-01-9

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1 **OF MATERIALS CAPABLE OF WITHSTANDING ADVERSE WEATHER CONDITIONS**  
2 The contractor and every sub-contractor shall keep original payrolls or  
3 transcripts thereof, subscribed and affirmed by him as true under the  
4 penalties of perjury, showing the hours and days worked by each workman,  
5 laborer or mechanic, the occupation at which he worked, the hourly wage  
6 rate paid and the supplements paid or provided, on the site of the work  
7 where the contractor or sub-contractor maintains no regular place of  
8 business in New York state and where the amount of the contract is in  
9 excess of twenty-five thousand dollars. All other contractors or sub-contractors  
10 shall produce within five days on the site of the work upon formal order of  
11 the commissioner or his designed representative such original payrolls or  
12 transcripts thereof, subscribed and affirmed by him as true under the penalties  
13 of perjury, as may be deemed necessary to adequately enforce the provisions  
14 of this article. Every contractor and sub-contractor shall submit to the  
15 department of jurisdiction within thirty days after issuance of its first payroll  
16 and every thirty days thereafter. A transcript of the original payroll record  
17 as provided by this article, subscribed and affirmed as true under the penalties  
18 of perjury. The department of jurisdiction, as herein referred to shall be the  
19 department of the state, board or officer in the state, or municipal corporation or  
20 commission or board appointed pursuant to law, whose duty it is to prepare  
21 or direct the preparation of the plans and specifications for a public work project.



STATE OF NEW YORK  
DEPARTMENT OF LABOR  
Bureau of Public Work  
Room 130, Building 12  
Harriman State Office Building Campus  
Albany, New York 12240

DEPT. OF LABOR  
BUREAU OF PUBLIC WORK  
65 COURT STREET  
BUFFALO, NY 14202

June 5, 2001

Important  
Notice

## IMPORTANT NOTICE REGARDING PREVAILING RATE UPDATES

Beginning this year, the Department of Labor's Bureau of Public Work will no longer be providing individually printed copies of the updated prevailing wage schedule. Instead, the schedule will be available to you on our web site ([www.labor.state.ny.us](http://www.labor.state.ny.us)) as of July 1, 2001.

All the other requirements concerning the schedule remain in place. Contracting agencies are still required to request a schedule from the Bureau prior to issuing a bid for a public work project and the schedule must be annexed to the bid document. In addition, the Bureau must be notified who the contract has been awarded to.

Contractors are still required to post the schedule on the jobsite and provide copies of the schedule to all their subcontractors. The requirement that contractors obtain affidavits from their subcontractors that such schedules have been provided is also in effect. Those forms will be available on our website, should you care to use them.

In the event that you do not have web access or are unable to access the Department's website, please fax a written request for a printed copy of the schedule to the Central Office of the Bureau of Public Work at (518) 485-1870.

This change will allow the Department to provide this important information on a timelier basis and make the information contained in it much more widely available. If you have any questions about this change, please do not hesitate to contact the Bureau of Public Work at (518) 457-5589.

Click on:      Working in New York      or      Business in New York  
Your Rights As A Worker      or      Your Responsibilities As An Employer  
Public projects  
Prevailing Wage Schedules  
Prevailing Wage Schedules and Updates (at bottom of page)  
General Construction Rates      or      Residential Construction Rates  
County  
(Entire County)      or      Occupation



# DEPARTMENT OF LABOR - BUREAU OF PUBLIC WORK

Under Article 8 of the NYS Labor Law, when two final determinations have been rendered against a contractor, sub-contractor and/or its successor within any consecutive six-year period determining that such contractor, sub-contractor and/or its successor has WILLFULLY failed to pay the prevailing wage and/or supplements, or when one final determination involves falsification of payroll records or the kickback of wages and/or supplements, said contractor, sub-contractor and/or its successor shall be debarred and ineligible to submit a bid on or be awarded any public work contract/sub-contract with the state, any municipal corporation or public body for a period of five years from the date of debarment. NOTE: Where the Fiscal Officer is denoted "NYC", the information has been provided by the New York City Comptroller's Office, the agency issuing the determination.

## LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name	Address	City	State	Zip Code
385 Services LLC	2657 State Highway 28	Portlandville	NY	13834
<b>FEIN:</b> 16-1466399	<b>Barred Until</b> 01/08/2009	<b>Fiscal Officer Notes:</b> DOL Multiple willful violations		

Company Name	Address	City	State	Zip Code
A & R Paterno Construction Inc	287 Rockaway Turnpike	Lawrence	NY	11559
<b>FEIN:</b>	<b>Barred Until</b> 10/30/2005	<b>Fiscal Officer Notes:</b> NYC Falsified payrolls		

Company Name	Address	City	State	Zip Code
A & R Roofing Inc	P O Box 80 - Spring St	Southfields	NY	10975
<b>FEIN:</b> 13-3245226	<b>Barred Until</b> 08/30/2004	<b>Fiscal Officer Notes:</b> DOL		

Company Name	Address	City	State	Zip Code
A & T General Construction Inc	3 Alan Shephard Place	Yonkers	NY	10705
<b>FEIN:</b> 13-3927478	<b>Barred Until</b> 01/31/2006	<b>Fiscal Officer Notes:</b> DOL Falsified payrolls		

Company Name	Address	City	State	Zip Code
A Castricone Concrete Inc	P O Box 203	Athol Springs	NY	14010
<b>FEIN:</b> 16-1582253	<b>Barred Until</b> 03/03/2008	<b>Fiscal Officer Notes:</b> DOL and Crazy Horse Tonawanda Inc		

Company Name	Address	City	State	Zip Code
A G Plumbing Inc	54 Knickerbocker Avenue	Brooklyn	NY	11237
<b>FEIN:</b> 13-3276217	<b>Barred Until</b> 07/22/2006	<b>Fiscal Officer Notes:</b> NYC Multiple willful violations		

# LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name	Address	City	State	Zip Code
A R DiGima	1331 Belle Avenue	Utica	NY	13501
<b>FEIN:</b> 16-0996110	<b>Barred Until</b> 03/11/2008	<b>Fiscal Officer Notes:</b> Successor to LBS of Frankfort Inc and/or Clean Air Asbestos Removal Inc		

Company Name	Address	City	State	Zip Code
Aegean General Contracting Inc	57-16 157th Street	Flushing	NY	11355
<b>FEIN:</b> 11-3451267	<b>Barred Until</b> 03/11/2008	<b>Fiscal Officer Notes:</b> Settlement agreement with A.G.'s Office - falsified payrolls - Also Aegean Marble Co., Aegean Marble Contracting Co., and George Begakis individually		

Company Name	Address	City	State	Zip Code
Aegean Marble Co.				
<b>FEIN:</b> 11-3451267	<b>Barred Until</b> 03/11/2008	<b>Fiscal Officer Notes:</b> See Aegean General Contracting Inc		

Company Name	Address	City	State	Zip Code
Aegean Marble Contracting Co.				
<b>FEIN:</b> 11-3451267	<b>Barred Until</b> 03/11/2008	<b>Fiscal Officer Notes:</b> See Aegean General Contracting Inc		

Company Name	Address	City	State	Zip Code
Albany Pipe Insulators Inc	P O Box 332 - Foundry Rd	Voorheesville	NY	12186
<b>FEIN:</b> 14-1617890	<b>Barred Until</b> 02/18/2008	<b>Fiscal Officer Notes:</b> DOL		

Company Name	Address	City	State	Zip Code
American General Construction Corp	54 Knickerbocker Avenue	Brooklyn	NY	11237
<b>FEIN:</b> 13-3276217	<b>Barred Until</b> 07/22/2006	<b>Fiscal Officer Notes:</b> NYC Multiple willful violations		

Company Name	Address	City	State	Zip Code
ANS Welding Corp	111 Dale Street	West Babylon	NY	11704
<b>FEIN:</b> 11-1867262	<b>Barred Until</b> 09/10/2008	<b>Fiscal Officer Notes:</b> DOL Multiple willful violations		

Company Name	Address	City	State	Zip Code
AP Painting & Improvement Inc	575 Hempstead Turnpike	West Hempstead	NY	11552
<b>FEIN:</b> 11-2683637	<b>Barred Until</b> 04/09/2007	<b>Fiscal Officer Notes:</b> DOL Falsified payrolls		

# LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name	Address	City	State	Zip Code
APC Painting				
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
	05/13/2007	See Apollo Construction Services Corp		
Company Name	Address	City	State	Zip Code
Apollo Construction Services Corp	157 Tibbets Road	Yonkers	NY	10705
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
13-3983219	05/13/2007	DOL dba Apolo Painting Corp. - multiple willful violations		
Company Name	Address	City	State	Zip Code
Apolo Painting Company				
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
13-3863295	05/13/2007	aka APC Painting - see Apollo Construction Services Corp		
Company Name	Address	City	State	Zip Code
Apolo Painting Corp				
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
13-3863295	05/13/2007	See Apollo Construction Services Corp		
Company Name	Address	City	State	Zip Code
Asbestos Systems Inc	1771 Foote Avenue	Jamestown	NY	14701
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
25-1742587	05/20/2007	DOL Gregory McCoy T/A GM Enterprises dba Asbestos Systems Inc		
Company Name	Address	City	State	Zip Code
Azam Ali Chaudhry				
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
	12/10/2007	See Republic Reconstruction & Management Inc		
Company Name	Address	City	State	Zip Code
B H Refrigeration Inc	818 Elmwood Avenue	Buffalo	NY	14213
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
16-1089599	07/23/2004	DOL Multiple willfuls - falsified payrolls		
Company Name	Address	City	State	Zip Code
B&R Roofing Inc				
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
13-3258046	08/09/2004	See Frank Valerio General Contracting		

# LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name	Address	City	State	Zip Code
Betty Holl Inc				
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
16-1089599		see B H Refrigeration as its successor		
Company Name	Address	City	State	Zip Code
Betty Jones' Services	P O Box 58	Utica	NY	13503
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
16-1247154	12/31/2006	DOL dba D&B J's Services and Betty Jones as President and Individually		
Company Name	Address	City	State	Zip Code
Betty Jones (as President and Individually				
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
	12/31/2006	See Betty Jones' Services		
Company Name	Address	City	State	Zip Code
BH Mechanical Services				
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
16-1089599		Aka B H Refrigeration Inc		
Company Name	Address	City	State	Zip Code
Bistrian Materials Inc	175 Springs Fireplace Rd	East Hampton	NY	11937
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
11-3359771	06/06/2005	DOL See Patrick Bistrian Jr. , Inc. (substantially owned-affiliated entity or successor)		
Company Name	Address	City	State	Zip Code
Boguslaw Bozek				
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
	05/14/2008	As an individual - see Goldhand Construction LLC		
Company Name	Address	City	State	Zip Code
Butler Fence Company	536 State Fair Blvd	Syracuse	NY	13204
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
16-1111490	04/25/2005	DOL		
Company Name	Address	City	State	Zip Code
C B E Contracting Corp	310 McGuinness Blvd	Greenpoint	NY	11222
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
11-2968809	10/21/2007	DOL Falsified payrolls		



# LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name	Address	City	State	Zip Code
C Destro Development Co Inc	3150 Seneca Street	West Seneca	NY	14224

FEIN:	Barred Until	Fiscal Officer Notes:
16-1479833	01/26/2009	DOL Multiple willful violations

Company Name	Address	City	State	Zip Code
Calvin S Robinson Electrical Inc	2117 Egret Drive	Clearwater	FL	33764

FEIN:	Barred Until	Fiscal Officer Notes:
14-1657781	04/12/2007	DOL Falsified payrolls

Company Name	Address	City	State	Zip Code
Capital Safety Inc.	380 Lakeview	Clifton	NJ	07011

FEIN:	Barred Until	Fiscal Officer Notes:
22-2994673	08/06/2004	DOL Falsified records and kickback of wages - debarment extended after additional violation

Company Name	Address	City	State	Zip Code
Carey & Murray Inc	P O Box 92036	Rochester	NY	14692

FEIN:	Barred Until	Fiscal Officer Notes:
16-1144389	01/18/2005	DOL Multiple willfuls

Company Name	Address	City	State	Zip Code
Carl Babb				

FEIN:	Barred Until	Fiscal Officer Notes:
	07/21/2008	As an individual - See Olympic Window Installers Inc

Company Name	Address	City	State	Zip Code
Causeway Construction Corp	110-30 15th Avenue	College Point	NY	11356

FEIN:	Barred Until	Fiscal Officer Notes:
13-3065561	09/27/2007	NYC Multiple willful violations

Company Name	Address	City	State	Zip Code
Cavalier Constr Corp c/o Clayman & Rosenbe	305 Madison Avenue	New York	NY	10165

FEIN:	Barred Until	Fiscal Officer Notes:
	02/19/2008	NYC Falsified records - plea agreement

Company Name	Address	City	State	Zip Code
Centurian Management of New York Inc	P O Box 961	Port Jefferson Sta	NY	11776

FEIN:	Barred Until	Fiscal Officer Notes:
11-3230587	05/03/2006	DOL Aka Centurian Protection of New York State-falsified records - debarment period

# LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name	Address	City	State	Zip Code
Centurian Protection of New York <b>FEIN:</b> 11-3230587 <b>Barred Until:</b>	<b>Fiscal Officer Notes:</b> See Centurian Management of New York State Inc - debarred until 05/03/2006			
Company Name	Address	City	State	Zip Code
Charles Saliba <b>FEIN:</b> 07/25/2005 <b>Barred Until:</b>	<b>Fiscal Officer Notes:</b> See Monarch Construction Corporation (owner)			
Company Name	Address	City	State	Zip Code
Ciancio Mechanical Inc <b>FEIN:</b> 16-1440026 <b>Barred Until:</b> 12/03/2004	321 Crescent Street <b>Fiscal Officer Notes:</b> DOL Multiple willfuls	Jamestown	NY	14701
Company Name	Address	City	State	Zip Code
Classic Electric Inc <b>FEIN:</b> 11-2811549 <b>Barred Until:</b> 11/27/2005	29-01 21st Avenue <b>Fiscal Officer Notes:</b> NYC Multiple violations	Astoria	NY	11105
Company Name	Address	City	State	Zip Code
COMM/NET Solutions Inc <b>FEIN:</b> 16-1535936 <b>Barred Until:</b>	<b>Fiscal Officer Notes:</b> Successor to Integrated Communications Infrastructure Systems Inc			
Company Name	Address	City	State	Zip Code
Commercial Building Maintenance Corp <b>FEIN:</b> 11-2945732 <b>Barred Until:</b> 01/23/2008	40 Oak Drive <b>Fiscal Officer Notes:</b> Plea agreement with D.A.'s Office - willful violation and falsification of payroll records	Syosset	NY	11791
Company Name	Address	City	State	Zip Code
Commercial Painting Co <b>FEIN:</b> 16-1513909 <b>Barred Until:</b> 05/01/2008	4872 West Seneca Turnpike <b>Fiscal Officer Notes:</b> DOL James Stanton dba Commercial Painting Co - falsified payroll records	Syracuse	NY	13215
Company Name	Address	City	State	Zip Code
Commtech Communications Inc <b>FEIN:</b> 16-1335983 <b>Barred Until:</b> 11/22/2007	649 Warwick Road <b>Fiscal Officer Notes:</b> DOL See also Commtech Electrical Construction Corp and Michael R Palmer - multiple violations	North Tonawanda	NY	14120

# LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name	Address	City	State	Zip Code
Commtech Electrical Construction	649 Warwick Road	North Tonawanda	NY	14120

FEIN:	Barred Until	Fiscal Officer Notes:
16-1407836	11/22/2007	DOL See also Commtech Communications and Michael R Palmer- multiple violations

Company Name	Address	City	State	Zip Code
Converse Construction Corp	1597 Route 112	Port Jefferson Sta	NY	11776

FEIN:	Barred Until	Fiscal Officer Notes:
11-3262576	03/21/2007	DOL Falsified payrolls

Company Name	Address	City	State	Zip Code
CountyWide Electric Corp	795 Portland Avenue	Rochester	NY	14621

FEIN:	Barred Until	Fiscal Officer Notes:
16-1540552	04/19/2005	DOL Succ./ Substantially owned-Affiliated entity to JoBeth Inc.-stipulated to debarment

Company Name	Address	City	State	Zip Code
Crazy Horse Tonawanda Inc	P O Box 203	Athol Springs	NY	14010

FEIN:	Barred Until	Fiscal Officer Notes:
16-1528124	03/03/2008	DOL and A Castricone Concrete Inc

Company Name	Address	City	State	Zip Code
CrossBay Contracting Corp	242 Nevins Street	Brooklyn	NY	11217

FEIN:	Barred Until	Fiscal Officer Notes:
11-2124028	04/18/2005	NYC Falsified payrolls -multiple willfuls - debarment period extended

Company Name	Address	City	State	Zip Code
D & D Mason Contractors Inc	158 11 96th Street	Howard Beach	NY	11414

FEIN:	Barred Until	Fiscal Officer Notes:
11-3219453	05/16/2006	NYC Falsified payrolls - plea agreement

Company Name	Address	City	State	Zip Code
D&B J's Services				

FEIN:	Barred Until	Fiscal Officer Notes:
16-1247154	12/31/2006	See Betty Jones' Services Inc

Company Name	Address	City	State	Zip Code
Dalton Steel Inc	197 U S Route 11	Central Square	NY	13036

FEIN:	Barred Until	Fiscal Officer Notes:
16-1557064	03/12/2009	DOL dba Pardee Construction and Shirley Pardee as an individual - multiple willful

# LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name	Address	City	State	Zip Code
Darby General Contracting Inc	565 Oak Street	Copiague	NY	11726
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
11-3420817	08/04/2008	DOL dba Darby Glass Co - multiple willful violations		
Company Name	Address	City	State	Zip Code
Darby Glass Co				
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
11-3081390		See Darby General Contracting Inc		
Company Name	Address	City	State	Zip Code
David Ogden	795 Portland Avenue	Rochester	NY	14621
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
	04/19/2005	DOL V.P./Sec. of JoBeth Inc; Pres.&V.P. of CountyWide Electric Corp. - stipulated to debarment		
Company Name	Address	City	State	Zip Code
Debcon Construction Corporation	77 Weyman Avenue	New Rochelle	NY	10805
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
13-3157140	06/11/2006	DOL Multiple willfuls - Debcon Construction Corporation and Deborah Rago individually - falsified payrolls - debarment period extended		
Company Name	Address	City	State	Zip Code
Deborah Rago, individually				
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
	06/11/2006	See Debcon Construction Corp		
Company Name	Address	City	State	Zip Code
Dellapenna Associates Inc	86 Olive Street	Johnson City	NY	13790
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
16-1465989	02/18/2008	DOL Substantially owned-affiliated entity and/or successor of Dellapenna Brothers Inc - debarment period extended after additional violations		
Company Name	Address	City	State	Zip Code
Dellapenna Brothers Inc	86 Olive Street	Johnson City	NY	13790
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
16-0964223	08/04/2008	DOL multiple willfuls - debarment period extended after additional violations		
Company Name	Address	City	State	Zip Code
Drywall Systems Unlimited Inc	182 West Main Street	Middletown	NY	10940
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
06-1405921	10/02/2007	DOL		

# LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name	Address	City	State	Zip Code
Drywall Wizard				
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
05-1684878	10/16/2006	See Stephen Potter		
Company Name	Address	City	State	Zip Code
East Coast Detention Equipment Systems Inc	2909 Bridge Plaza N	Long Island City	NY	11101
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
11-3038813	06/23/2004	DOL Falsified records		
Company Name	Address	City	State	Zip Code
Elizabeth A. Carr	P O Box 82	Valatie	NY	12184
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
	10/14/2008	dba Everlasting Slate - as an individual		
Company Name	Address	City	State	Zip Code
Emes Heating & Plumbing & Heating Contr	5 Emes Lane	Monsey	NY	10952
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
13-2590780		DOL and Julius and Gita Behrend, as individuals. Parties entered into a voluntary agreement to be permanently debarred		
Company Name	Address	City	State	Zip Code
Empire Demolition Development Co Inc	1096 Niagara St	Buffalo	NY	14213
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
16-1517860	03/24/2005	DOL Multiple willfuls		
Company Name	Address	City	State	Zip Code
Empire State Renovation Corp	15 Division Place	Brooklyn	NY	11222
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
11-3170331	05/22/2007	NYC Falsified payrolls - plea agreement		
Company Name	Address	City	State	Zip Code
Enjem's Incorporated	111 South Main Street	Herkimer	NY	13350
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
16-1038008	03/04/2009	DOL and Francis Enjem as an individual. Falsification of records.		
Company Name	Address	City	State	Zip Code
Eric Lutz Construction Corp	493-14 Johnson Avenue	Bohemia	NY	11716
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
11-2909165	12/27/2004	DOL Falsified records		

# LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

<b>Company Name</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip Code</b>
Espo Construction Inc	3302 Country Club Rd	Bronx	NY	10465
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
13-3444069	01/19/2005	NYC Falsified records		
<b>Company Name</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip Code</b>
Euro Craft Restoration, Inc.	41-12 Ditmars Blvd	Long Island City	NY	11105
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
13-3769924	10/14/2008	DOL and Savvas A. Savva (as an individual) Falsification of records and kickback of wages. Plea agreement with A.G.'s Office		
<b>Company Name</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip Code</b>
Everlasting Slate	P O Box 82	Valatie	NY	12184
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
22-3397381	10/14/2008	DOL And Elizabeth A. Carr and Sean Campion as individuals. Falsification of records		
<b>Company Name</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip Code</b>
Foundation Construction Consultants Inc	294 20th Street	Brooklyn	NY	11215
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
11-2761496	05/20/2008	NYC Multiple willfuls and falsification of payroll records		
<b>Company Name</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip Code</b>
Francis Enjem	111 South Main Street	Herkimer	NY	13350
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
	03/04/2009	As an individual. See Enjem's Incorporated.		
<b>Company Name</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip Code</b>
Franco Paints Inc	159 92nd Street	Brooklyn	NY	11209
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
	08/07/2008	NYC and Mida Painting Ltd, Nicholas Kallergis and Stamatia Kallergis, as individuals. Assurance of Discontinuance/Settlement Agreement		
<b>Company Name</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip Code</b>
Frank J. Labriola				
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
		See State of the Art Construction Co Inc		
<b>Company Name</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip Code</b>
Frank Valerio General Contracting Corp	89 West Route 59	Central Nyack	NY	10960
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
13-3258046	08/09/2004	DOL AKA B&R Roofing Inc - debarment period extended		

# LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name	Address	City	State	Zip Code
Gem Building & Equipment Inc	2332 Route 9W	Saugerties	NY	12477
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
14-1793970	06/28/2007	DOL		

Company Name	Address	City	State	Zip Code
Gem Installations Inc	P O Box 422	Little Meadows	PA	18830
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
23-2709267	04/06/2005	DOL Multiple willfuls		

Company Name	Address	City	State	Zip Code
Gemma Construction Company Inc	R.A.Libret 1325 Franklin	Garden City	NY	11530
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
11-2526394	12/29/2004	NYC Falsified records		

Company Name	Address	City	State	Zip Code
General Restoration Co Inc	551 Fifth Ave Suite 222	New York	NY	10176
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
13-1709010	08/04/2004	DOL Voluntary debarment		

Company Name	Address	City	State	Zip Code
George Begakis				
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
	03/11/2008	As an individual - see Aegean General Contracting Inc		

Company Name	Address	City	State	Zip Code
George Bush	19 Hoffman Drive	Latham	NY	12118
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
	01/14/2009	DOL Falsification of payroll records		

Company Name	Address	City	State	Zip Code
George Forakis	P O Box 8808	Baltimore	MD	21224
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
	03/07/2007	DOL Falsified payrolls - Paint City Contractors Inc and George Forakis individually		

Company Name	Address	City	State	Zip Code
George J Leva Sr.				
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
	02/06/2008	As an individual dba Ontario Flooring Company. Debarment period extended after additional violation		

# LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name	Address	City	State	Zip Code
George Lucey,Manual Tobio(see note)	150 Kings Street	Brooklyn	NY	11231
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
		NYC Manuel P Tobio and Lake Constr and Development Corp (individually and as a whole) grand larceny,falsified records,debarred permanently		
Company Name	Address	City	State	Zip Code
Georgian Bay Contracting Inc	4635 Chestnut Road	Amherst	NY	14228
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
16-1469987	01/12/2005	DOL Multiple willfuls		
Company Name	Address	City	State	Zip Code
GM Enterprises				
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
16-1509833	05/20/2007	See Asbestos Systems Inc		
Company Name	Address	City	State	Zip Code
Gogos & Weber Contracting Inc	241 Sprucewood Terrace	Williamsville	NY	14221
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
16-0952774	12/30/2004	DOL Multiple willfuls		
Company Name	Address	City	State	Zip Code
Goldhand Construction LLC	116 East Saddle River Rd	Saddle River	NJ	07458
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
22-3765123	05/14/2008	DOL Falsified of payroll records		
Company Name	Address	City	State	Zip Code
Gregory McCoy				
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
	05/20/2007	As an individual. See GM Enterprises dba Asbestos Systems Inc		
Company Name	Address	City	State	Zip Code
Gulley Terrazzo Tile & Flooring Co	P O Box 11304	Rochester	NY	14611
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
16-1396462	04/06/2005	DOL See Tobie R Gulley		
Company Name	Address	City	State	Zip Code
Hamax Construction Corporation	540 Commerce St - Ste 6	Thornwood	NY	10594
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
06-1482076	09/11/2008	DOL Also Thomas Hanlon and William Valentine as individuals. Multiple willfuls and falsification of records. Debarment period extended after other willful violations		



# LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name	Address	City	State	Zip Code
Harter Construction Services Inc	P O Box 57	Hilton	NY	14468
<b>FEIN:</b> 16-1518481	<b>Barred Until</b> 10/18/2004	<b>Fiscal Officer Notes:</b> DOL Falsified records		
Company Name	Address	City	State	Zip Code
HDA Construction	942 Havemeyer Avenue	Bronx	NY	10473
<b>FEIN:</b> 06-1613022	<b>Barred Until</b> 12/10/2007	<b>Fiscal Officer Notes:</b> DOL Falsified records		
Company Name	Address	City	State	Zip Code
Hector Colon	3643 Bruckner Blvd	Bronx	NY	10464
<b>FEIN:</b>	<b>Barred Until</b> 04/17/2007	<b>Fiscal Officer Notes:</b> DOL Conducting business as M & H Climate and Energy Management Ltd. Falsified		
Company Name	Address	City	State	Zip Code
Hi Tech Insulation	P O Box 12861	Rochester	NY	14612
<b>FEIN:</b> 16-1487213	<b>Barred Until</b> 12/09/2007	<b>Fiscal Officer Notes:</b> DOL Kevin C. Marlowe dba Hi Tech Insulation - multiple violations		
Company Name	Address	City	State	Zip Code
Hi-Amp Electrical Construction Corp	265-12 Hillside Avenue	Floral Park	NY	11004
<b>FEIN:</b> 13-3520080	<b>Barred Until</b> 04/30/2007	<b>Fiscal Officer Notes:</b> DOL and Ivan Torres individually. Falsified payrolls		
Company Name	Address	City	State	Zip Code
I & P Concrete Inc	P O Box 342	Pine Bush	NY	12566
<b>FEIN:</b> 14-1616069	<b>Barred Until</b> 11/30/2004	<b>Fiscal Officer Notes:</b> DOL		
Company Name	Address	City	State	Zip Code
I C Construction Company Inc	120 South Broadway	Red Hook	NY	12571
<b>FEIN:</b> 14-1789216	<b>Barred Until</b> 08/21/2007	<b>Fiscal Officer Notes:</b> DOL Multiple willfuls - Debarment period extended after additional violations		
Company Name	Address	City	State	Zip Code
Integrated Communications Infracstructures	688 Wilder Road	Hilton	NY	14468
<b>FEIN:</b> 16-1523914	<b>Barred Until</b> 06/24/2004	<b>Fiscal Officer Notes:</b> DOL And successor COMM/Net Solutions Inc		

# LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name	Address	City	State	Zip Code
Intercounty Roofing Systems Inc	20 Jerusalem Avenue	Hicksville	NY	11801
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
11-3550866	05/09/2006	DOL Falsified payrolls		

Company Name	Address	City	State	Zip Code
Interior Decorating Floor Covering Co Inc	2229 Clifford Avenue	Rochester	NY	14609
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
16-1337838	07/29/2007	DOL Falsification of records		

Company Name	Address	City	State	Zip Code
International Environmental Resources				
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
05-0448266	08/09/2007	See International Environmental Services Inc		

Company Name	Address	City	State	Zip Code
International Environmental Services Inc	2 Stafford Court	Cranston	RI	02920
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
05-0448266	08/09/2007	DOL dba International Environmental Resources - Falsified payrolls		

Company Name	Address	City	State	Zip Code
Ismael Cisneros				
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
	04/14/2008	As an individual - See Izi Plumbing & Heating Ltd		

Company Name	Address	City	State	Zip Code
Ivan Torres	265-12 Hillside Avenue	Floral Park	NY	11004
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
	04/30/2007	DOL Individually and Hi-Amp Electrical Construction Corp. Falsified payrolls		

Company Name	Address	City	State	Zip Code
IVS Construction Company Inc	c/o M&P 245 Main St	White Plains	NY	10601
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
13-3466631	11/19/2004	NYC Falsified records		

Company Name	Address	City	State	Zip Code
Izi Plumbing & Heating Ltd	291 Metropolitan Avenue	Brooklyn	NY	11211
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
11-3157717	04/14/2008	DOL and Ismael Cisneros, Individually - falsified payrolls		

# LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name	Address	City	State	Zip Code
J & V Decorating Corporation	215-46 39th Avenue	Bayside	NY	11361

FEIN:	Barred Until	Fiscal Officer Notes:
11-2568020	12/15/2004	Debarred by A.G.'s Office effective 12/15/2003

Company Name	Address	City	State	Zip Code
J Mangone Contracting Inc	53 13th Avenue	Mineola	NY	11501

FEIN:	Barred Until	Fiscal Officer Notes:
11-2802563	11/07/2006	DOL Falsified payrolls and kickbacks of wages and supplements

Company Name	Address	City	State	Zip Code
J T Painting Corp	P O Box 337	Burlingham	NY	12722

FEIN:	Barred Until	Fiscal Officer Notes:
06-1260246	02/26/2009	DOL Falsification of records

Company Name	Address	City	State	Zip Code
James Avallone				

FEIN:	Barred Until	Fiscal Officer Notes:
	08/07/2008	As an individual - see James Avallone Tile & Marble - debarment period extended

Company Name	Address	City	State	Zip Code
James Avallone Tile & Marble	217 Christie Street	Ridgefield Park	NJ	07660

FEIN:	Barred Until	Fiscal Officer Notes:
07-5336752	08/07/2008	DOL Multiple willful violations - debarment period extended

Company Name	Address	City	State	Zip Code
JBC Industries of Parish Inc	P O Box 728 - CR 44	Mexico	NY	13114

FEIN:	Barred Until	Fiscal Officer Notes:
16-1470149	07/24/2007	DOL Multiple willful violations

Company Name	Address	City	State	Zip Code
JoBeth Inc	795 Portland Avenue	Rochester	NY	14621

FEIN:	Barred Until	Fiscal Officer Notes:
16-1441129	04/19/2005	DOL Stipulated to debarment

Company Name	Address	City	State	Zip Code
John Varelakis	2063 Maple Street	Wantaugh	NY	11793

FEIN:	Barred Until	Fiscal Officer Notes:
	02/20/2007	As an individual - See Sprucewood Painting Corp

# LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name	Address	City	State	Zip Code
Julius and Gita Behrend	5 Emes Lane	Monsey	NY	10952
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
		See Emes Heating & Plumbing Contractor, Inc		
Company Name	Address	City	State	Zip Code
K & K Restoration Corp	752 Cypress Drive	Franklin Square	NY	11010
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
11-3350553	04/14/2005	NYC Falsified records		
Company Name	Address	City	State	Zip Code
KBH Construction Co Inc	90 River Rd - P O Box 30	Scottsville	NY	14546
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
16-1425844	05/21/2004	DOL Multiple willfuls		
Company Name	Address	City	State	Zip Code
Keith Grimes Inc	Fairlawn Dr - P O Box 964	Montauk	NY	11954
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
11-2938037	03/21/2006	DOL Falsified records		
Company Name	Address	City	State	Zip Code
Kevin C Marlowe				
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
		See Hi Tech Insulation		
Company Name	Address	City	State	Zip Code
Keystone Construction Corp	9945 Fort Hamilton Pkwy	Brooklyn	NY	11209
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
16-1402500	08/20/2008	DOL And Nicholas Margaritis as an individual		
Company Name	Address	City	State	Zip Code
Kornas Construction Corporation	162 85th Street	Brooklyn	NY	11209
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
11-2691706	01/09/2006	NYC Falsified payrolls		
Company Name	Address	City	State	Zip Code
L Harbert Inc	1871 Walton Avenue	Bronx	NY	10453
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
11-2669657	06/14/2004	NYC Falsified records		

# LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name	Address	City	State	Zip Code
Lake Construction and Development Corp				
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
11-2678816		See George Lucey		
Company Name	Address	City	State	Zip Code
Lorenzo DeVardo	1850 Steinway Street	Long Island City	NY	11105
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
	01/08/2009	DOL As an individual. See Vardo Construction Corp		
Company Name	Address	City	State	Zip Code
Louis A Stilloe Roofing & Siding Inc	P O Box 68 Southview Sta	Binghamton	NY	13903
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
16-1113085	08/30/2004	DOL Falsified records		
Company Name	Address	City	State	Zip Code
Louis Scopelliti Inc	87 Newman Avenue	Hawthorne	NY	10532
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
13-3716497	01/12/2005	DOL Falsified records		
Company Name	Address	City	State	Zip Code
LRM Finishing Co Inc.	9449 Button Road	Cicero	NY	13039
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
16-1382987	06/10/2004	DOL Multiple willfuls		
Company Name	Address	City	State	Zip Code
M & H Climate and Energy Management Ltd				
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
58-2152185	04/17/2007	See Hector Colon		
Company Name	Address	City	State	Zip Code
M Falgiano Construction Co Inc	P O Box 206	Cheektowaga	NY	14225
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
16-0974582	11/01/2004	DOL Multiple willfuls		
Company Name	Address	City	State	Zip Code
Mac Stringer Painting	250 Lake Avenue	Rochester	NY	14608
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
16-1008740	12/18/2006	DOL Falsification of records		

# LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

<b>Company Name</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip Code</b>
Mainland Renovations Inc	685 Hempstead Tpke	Franklin Square	NY	11010
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
11-3422212	12/09/2004	DOL Falsified records		
<b>Company Name</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip Code</b>
Management Services				
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
		See Wayne Lancaster		
<b>Company Name</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip Code</b>
Manuel P. Tobio				
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
		See George Lucey		
<b>Company Name</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip Code</b>
Manuel Tobio				
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
		See George Lucey		
<b>Company Name</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip Code</b>
Marianne Ogden	795 Portland Avenue	Rochester	NY	14621
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
	04/19/2005	DOL Multiple willfuls - President and Treasurer of Jobeth - stipulated to debarment		
<b>Company Name</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip Code</b>
Mas-Ann Mechanical Inc	35 Regency Oaks Blvd	Rochester	NY	14624
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
16-1357694	07/12/2007	DOL		
<b>Company Name</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip Code</b>
Mashack Flooring Supply Inc.	P O Box 824	Bronx	NY	10472
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
13-3661080	09/14/2004	DOL Falsified records		
<b>Company Name</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip Code</b>
Merchants I & S Corp Inc	7732 Victor Mendon Road	Victor	NY	14564
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
16-1405450	11/22/2007	DOL Debarment extended after additional violation		

# LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name	Address	City	State	Zip Code
Merit Fence Co Inc	130 Old Route 6	Carmel	NY	10512

FEIN:	Barred Until	Fiscal Officer Notes:
06-1350241	08/06/2008	DOL Multiple willful violations

Company Name	Address	City	State	Zip Code
Michael Falgiano Jr.				

FEIN:	Barred Until	Fiscal Officer Notes:
		Principal officer-partner and/or shareholder - See M Falgiano Construction Co Inc

Company Name	Address	City	State	Zip Code
Michael Falgiano Sr				

FEIN:	Barred Until	Fiscal Officer Notes:
		Principal officer-partner and/or shareholder - see M Falgiano Construction Co Inc

Company Name	Address	City	State	Zip Code
Michael R Palmer				

FEIN:	Barred Until	Fiscal Officer Notes:
	11/22/2007	As an individual - See Commtech Communications Inc and Commtech Electrical Construction Corp

Company Name	Address	City	State	Zip Code
Mida Painting Ltd	159 92nd Street	Brooklyn	NY	11209

FEIN:	Barred Until	Fiscal Officer Notes:
	08/07/2008	NYC and Franco Paints, Inc. and Nicholas Kallergis and Stamatia Kallergis, as individuals. Assurance of Discontinuance/Settlement Agreement

Company Name	Address	City	State	Zip Code
Milestone Waterproofing Inc	845 Broad Avenue Suite 5	Ridgefield	NJ	01657

FEIN:	Barred Until	Fiscal Officer Notes:
	11/01/2004	DOL Falsified records

Company Name	Address	City	State	Zip Code
Monarch Construction Corporation	1057 Jackson Avenue	Long Island City	NY	11101

FEIN:	Barred Until	Fiscal Officer Notes:
13-2808501	08/08/2006	NYC Falsified payrolls - debarment period extended

Company Name	Address	City	State	Zip Code
Muhammad A Beig	142 East Market Street	Long Beach	NY	11561

FEIN:	Barred Until	Fiscal Officer Notes:
	10/21/2007	DOL As an individual - falsified payrolls

# LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name	Address	City	State	Zip Code
Muhammad Arif Zia	50-21 193rd Street	Fresh Meadows	NY	
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
	01/01/2005	as an individual. See Wafman Construction Inc and Wafman Construction LLC		
Company Name	Address	City	State	Zip Code
Musa Pacuku				
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
	04/14/2008	As an individual - See Victory Roofing & Contracting Co Inc		
Company Name	Address	City	State	Zip Code
NAB Management Associates Inc	57 Hillside Avenue	New Rochelle	NY	11209
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
11-3197440	01/19/2005	NYC Falsified records		
Company Name	Address	City	State	Zip Code
Navarro Special Cleaning Services Inc	85-12 Sixty-Seventh Ave	Queens	NY	11374
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
11-2946101	04/16/2006	NYC Falsified payrolls		
Company Name	Address	City	State	Zip Code
Neptune Construction Co				
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
11-2779916		See Wayne Vitale Inc		
Company Name	Address	City	State	Zip Code
Nicholas Kallergis	159 92nd Street	Brooklyn	NY	11209
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
	08/07/2008	As an individual. See Franco Paints, Inc.and Mida Painting Ltd		
Company Name	Address	City	State	Zip Code
Nicholas Margaritis				
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
	08/20/2008	See Keystone Construction Corp.		
Company Name	Address	City	State	Zip Code
Nikolaos D. Varelakis	94 Cleveland Avenue	Massepequa	NY	11758
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
	02/20/2007	As an individual - See Sprucewood Painting Corp		



# LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name	Address	City	State	Zip Code
Northeast Regional Communications Inc	232 Main Street	Vestal	NY	13850
<b>FEIN:</b> 16-1470036	<b>Barred Until</b> 03/24/2005	<b>Fiscal Officer Notes:</b> DOL Also P O Box 573 Appalachin NY 13732 - multiple willfuls		
Company Name	Address	City	State	Zip Code
Olib Construction Company Inc	120 South Broadway	Red Hook	NY	12571
<b>FEIN:</b> 22-3200661	<b>Barred Until</b> 11/14/2006	<b>Fiscal Officer Notes:</b> DOL		
Company Name	Address	City	State	Zip Code
Olympic Associates Inc	2843 U.S. Route 11	Lafayette	NY	13084
<b>FEIN:</b> 16-1444097	<b>Barred Until</b> 01/08/2007	<b>Fiscal Officer Notes:</b> DOL Multiple willful violations		
Company Name	Address	City	State	Zip Code
Olympic Window Installers Inc	174 Lincoln Avenue	Hawthorne	NJ	07506
<b>FEIN:</b> 22-3034903	<b>Barred Until</b> 07/21/2008	<b>Fiscal Officer Notes:</b> DOL and Carl and Russell Babb as individuals		
Company Name	Address	City	State	Zip Code
Ontario Flooring Company	296 Rogers Parkway	Rochester	NY	14617
<b>FEIN:</b> 16-1554554	<b>Barred Until</b> 02/06/2008	<b>Fiscal Officer Notes:</b> DOL See George J Leva Sr. Debarment period extended after additional violation		
Company Name	Address	City	State	Zip Code
Oswego Trucking & Leasing	258 Washington Blvd	Oswego	NY	12801
<b>FEIN:</b> 16-1371814	<b>Barred Until</b> 07/21/2008	<b>Fiscal Officer Notes:</b> DOL Falsified records		
Company Name	Address	City	State	Zip Code
P & H Supply Company Inc	241-A Harrison Avenue	Harrison	NY	10528
<b>FEIN:</b> 13-3868727	<b>Barred Until</b> 01/12/2009	<b>Fiscal Officer Notes:</b> DOL Multiple willful violations - debarment period extended after additional violations		
Company Name	Address	City	State	Zip Code
Paint City Contractors Inc	P O Box 8808	Baltimore	MD	21224
<b>FEIN:</b> 52-1764775	<b>Barred Until</b> 03/07/2007	<b>Fiscal Officer Notes:</b> DOL Falsified payrolls		

# LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name	Address	City	State	Zip Code
Pardee Construction				
<b>FEIN:</b> 16-1557064	<b>Barred Until</b> 03/12/2009	<b>Fiscal Officer Notes:</b> See Dalton Steel Inc.		

Company Name	Address	City	State	Zip Code
Patrick Bistran Jr Inc	175 Springs Fireplace Rd	East Hampton	NY	11937
<b>FEIN:</b> 11-2590480	<b>Barred Until</b> 06/06/2005	<b>Fiscal Officer Notes:</b> DOL Falsified records		

Company Name	Address	City	State	Zip Code
Patrick Hurling				
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b> See Patrick Wright		

Company Name	Address	City	State	Zip Code
Patrick Wright and Patrick Hurling	505 B Lincoln Road	Riverhead	NY	11901
<b>FEIN:</b>	<b>Barred Until</b> 12/02/2004	<b>Fiscal Officer Notes:</b> DOL Aka Professional Roofing, aka Pat's Roofing and aka Professional Construction - falsified records		

Company Name	Address	City	State	Zip Code
Pat's Roofing				
<b>FEIN:</b> 00-3532015	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b> See Patrick Wright		

Company Name	Address	City	State	Zip Code
Paul M Maintenance Inc	7 Gatewood Drive	Hauppague	NY	11788
<b>FEIN:</b> 11-3287638	<b>Barred Until</b> 07/02/2007	<b>Fiscal Officer Notes:</b> DOL Falsified payrolls		

Company Name	Address	City	State	Zip Code
Pete Forakis	P O Box 8808	Baltimore	MD	21224
<b>FEIN:</b>	<b>Barred Until</b> 03/07/2007	<b>Fiscal Officer Notes:</b> DOL Multiple willfuls - Paint City Contractors Inc and Panagiotis Forakis dba Pete Forakis		

Company Name	Address	City	State	Zip Code
Pilos Contracting Corp	271 58th Street	Brooklyn	NY	11220
<b>FEIN:</b> 11-2540761	<b>Barred Until</b> 08/10/2005	<b>Fiscal Officer Notes:</b> DOL one willful with NYC and one willful with DOL		

# LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name	Address	City	State	Zip Code
Pipejackers Inc	15 East Bartlett Road	Middle Island	NY	11953
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
11-2209596	06/26/2007	DOL		

Company Name	Address	City	State	Zip Code
Professional Construction				
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
00-3532015		See Patrick Wright		

Company Name	Address	City	State	Zip Code
Professional Fence Co of WNY Inc	6479 Willow Drive	North Boston	NY	14075
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
16-1425254	07/08/2005	DOL multiple willfuls		

Company Name	Address	City	State	Zip Code
Professional Roofing				
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
00-3532015		See Patrick Wright		

Company Name	Address	City	State	Zip Code
Rainbow Mechanical Systems Inc	42-49 Coldern St - Suite 3	Flushing	NY	11355
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
	01/28/2007	NYC Plea agreement		

Company Name	Address	City	State	Zip Code
Rapid Demolition Co Inc	2550 West 13th Street	Brooklyn	NY	11223
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
11-2869485	11/18/2007	NYC And successors		

Company Name	Address	City	State	Zip Code
RB Morgan Associates	50 Morgan Avenue	Brooklyn	NY	11237
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
11-3198306	11/01/2004	DOL Falsified records		

Company Name	Address	City	State	Zip Code
Republic Construction & Management Inc	8111 7th Avenue	Brooklyn	NY	11228
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
11-3178177	12/10/2007	NYC and Azam Ali Chaudhry - falsified payrolls - plea agreement		

# LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

<b>Company Name</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip Code</b>
RGM Construction Corp	5601 Nurge Avenue	Maspeth	NY	11378
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
11-2853533	11/27/2004	DOL Falsified records		
<b>Company Name</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip Code</b>
RIP Marine Systems Inc	1332-04 11th Avenue	College Point	NY	11356
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
22-3279678	08/23/2004	NYC Falsified payrolls		
<b>Company Name</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip Code</b>
Robbye Bissesar	89-51 Springfield Blvd	Queens Village	NY	11427
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
		As an individual. See Star International Inc		
<b>Company Name</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip Code</b>
Russell Babb				
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
	07/21/2008	As an individual - See Olympic Window Installers Inc		
<b>Company Name</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip Code</b>
S & B Construction & Contracting Ltd	78 Wohseepee Road	Brightwaters	NY	11718
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
11-2987611	04/15/2007	DOL		
<b>Company Name</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip Code</b>
Savoya Construction Corp	13-15 37th Avenue	Long Island City	NY	11101
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
06-1421004	09/21/2006	DOL a Joint Venture with United Painting and Contracting Inc. - falsified payrolls - debarment period extended		
<b>Company Name</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip Code</b>
Savvas A. Savva				
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
	10/14/2008	See Euro Craft Restoration Inc		
<b>Company Name</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip Code</b>
Scott Bendersky	78Wohseepee Road	Brightwaters	NY	11718
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
	04/15/2007	DOL Individually and as Officer and/or Shareholder of S & B Construction and Contracting		

# LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name	Address	City	State	Zip Code
Sean Campion	P O Box 82	Valatie	NY	12184
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
	10/14/2008	dba Everlasting Slate - as an individual		
Company Name	Address	City	State	Zip Code
Shirley J Pardee	197 U S Route 11	Central Square	NY	13036
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
	03/12/2009	As an individual. See Dalton Steel Inc dba Pardee Construction.		
Company Name	Address	City	State	Zip Code
Sonny's Drywall Inc	1538 Mann Avenue	Hillside	NJ	07205
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
	09/07/2004	NYC Falsified records		
Company Name	Address	City	State	Zip Code
Spider Construction and Waterproofing Inc	806 53rd Street	Brooklyn	NY	11220
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
	11/19/2006	NYC Falsified payroll records		
Company Name	Address	City	State	Zip Code
Sprucewood Painting Corp	94 Cleveland Avenue	Massapequa	NY	11758
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
11-2949533	02/20/2007	NYC and Nikolaos D. Varelakis, Susan E. Varelakis and John Varelakis, as individuals. Multiple willful violations and falsified payroll records. Assurance of Discontinuance/Settlement Agreement.		
Company Name	Address	City	State	Zip Code
Stamatia Kallergis	159 92nd Street	Brooklyn	NY	11209
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
	08/07/2008	As an individual. See Franco Paints, Inc. and Mida Painting Ltd		
Company Name	Address	City	State	Zip Code
Star International Inc	89-51 Springfield Blvd	Queens Village	NY	11427
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
00-1613496		DOL Also Robbye Bissesar. Falsified payroll - permanently debarred		
Company Name	Address	City	State	Zip Code
State Environmental Services Inc	1801 Stillwell Avenue	Brooklyn	NY	11223
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
11-3164259	02/25/2008	NYC Plea agreement		

# LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

<b>Company Name</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip Code</b>
State of the Art Construction	140 Marine Street	Farmingdale	NY	11735
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
11-2653210	10/06/2005	DOL Multiple willful violations		
<b>Company Name</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip Code</b>
Stephen Potter	112 Summerville Drive	Rochester	NY	14617
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
	10/16/2006	DOL dba Drywall Wizard		
<b>Company Name</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip Code</b>
Superior Jamestown Corporation	55 Jones-Gifford Avenue	Jamestown	NY	14701
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
16-1381131	03/17/2008	NYC Falsified payroll records		
<b>Company Name</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip Code</b>
Supreme Electrical Contracting Inc	5306 Church Avenue	Brooklyn	NY	11203
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
11-3188408	06/11/2004	NYC Falsified records		
<b>Company Name</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip Code</b>
Susan E. Varelakis	94 Cleveland Avenue	Massepequa	NY	11758
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
	02/20/2007	As an individual - See Sprucewood Painting Corp		
<b>Company Name</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip Code</b>
T J Wilson Electric Inc	263 Waverly Avenue	Mamaroneck	NY	10543
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
13-3615112	02/10/2007	NYC Falsified payrolls		
<b>Company Name</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip Code</b>
Tele-Data-Com Solutions Inc	597 Tracey Creek Road	Vestal	NY	13850
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
52-2216924	03/24/2005	DOL alter ego of Northeast Regional Communications Inc		
<b>Company Name</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip Code</b>
TGR Corporation	22 Troy Lane	Lincoln Park	NJ	07035
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
22-2671011	07/31/2006	DOL Multiple violations		

# LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name	Address	City	State	Zip Code
Thomas Hanlon				
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
	09/11/2008	As an individual. See Hamax Construction Corp		
Company Name	Address	City	State	Zip Code
Thomas K Falgiano				
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
		Principal officer-partner and/or shareholder - see M Falgiano Construction Co Inc		
Company Name	Address	City	State	Zip Code
Tobie R Gulley	P O Box 11304	Rochester	NY	14611
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
	04/06/2005	DOL Db a Gulley Terrazzo Tile & Flooring Co. - multiple willfuls		
Company Name	Address	City	State	Zip Code
Topor Contracting Inc	153 Fillmore Avenue	Buffalo	NY	14210
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
16-1590680	04/27/2009	DOL Falsified payrolls		
Company Name	Address	City	State	Zip Code
Tower Building Maintenance and Mgmt	347 Kingsland Avenue	Brooklyn	NY	11222
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
11-3042307	11/24/2008	DOL Additional willful violations - debarment period extended		
Company Name	Address	City	State	Zip Code
Uhlein Property Services and Contracting	209 Paddock Street	Watertown	NY	13601
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
16-1372913	08/10/2005	DOL John C. Uhlein III db a Uhlein Property Services and Contracting - consent by stipulation		
Company Name	Address	City	State	Zip Code
United Painting and Contracting Inc	13-15 37th Avenue	Long Island City	NY	11101
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
	09/21/2006	DOL a Joint Venture with Savoya Construction Corp. - falsified payrolls - debarment period extended		
Company Name	Address	City	State	Zip Code
Vardo Construction Corporation	1850 Steinway Street	Long Island City	NY	11105
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
11-2694892	01/08/2009	DOL And Lorenzo DeVardo as an individual. Falsified payrolls		

# LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

<b>Company Name</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip Code</b>
VICO Mechanicals Systems Inc	c/o S.Zeitlin 50 Court St	Brooklyn	NY	11201
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
	01/28/2007	NYC Plea agreement		
<b>Company Name</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip Code</b>
Victory Roofing & Contracting Co Inc	265 Victory Boulevard	Staten Island	NY	10301
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
38-0100331	04/14/2008	DOL and Musa Pacuku as in individual. Falsification of records		
<b>Company Name</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip Code</b>
W Property Resources Inc	123 West 126th Street	New York	NY	10027
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
13-3462866	08/16/2006	NYC Multiple willfuls		
<b>Company Name</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip Code</b>
Wafman Construction Inc	77-02 34th Avenue	Jackson Heights	NY	11372
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
11-3245240	01/01/2005	NYC and Muhammad Arif Zia as an individual. Assurance of Discontinuance/Settlement Agreement with A.G.'s Office		
<b>Company Name</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip Code</b>
Wafman Construction LLC	77-02 34th Avenue	Jackson Heights	NY	11372
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
11-3245240	01/01/2005	NYC and Muhammad Arif Zia as an individual. Assurance of Discontinuance/Settlement Agreement with A.G.'s Office		
<b>Company Name</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip Code</b>
Wale Construction Corp	c/o S M 4309 White Plains	Bronx	NY	10466
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
13-3450552	08/12/2004	NYC Falsified records		
<b>Company Name</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip Code</b>
Wayne Lancaster, Individually	5350 McLaughlin Hill Rd	Beaver Dams	NY	14812
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
	06/30/2004	DOL Db a Management Services - falsified records		
<b>Company Name</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip Code</b>
Wayne Vitale Inc	P O Box 325	Port Jefferson	NY	11777
<b>FEIN:</b>	<b>Barred Until</b>	<b>Fiscal Officer Notes:</b>		
11-2779916	11/08/2005	DOL Db a Neptune Construction Co		



# LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

<b>Company Name</b> West Electric Inc	<b>Address</b> P O Box 83	<b>City</b> Blossvale	<b>State</b> NY	<b>Zip Code</b> 13308
<b>FEIN:</b> 16-1496979	<b>Barred Until</b> 07/19/2006	<b>Fiscal Officer Notes:</b> DOL Multiple willful violations		
<b>Company Name</b> Westchester Iron Works Corporation	<b>Address</b> 65 Plain Avenue	<b>City</b> New Rochelle	<b>State</b> NY	<b>Zip Code</b> 10801
<b>FEIN:</b> 13-3459763	<b>Barred Until</b> 03/02/2006	<b>Fiscal Officer Notes:</b> NYC Voluntary debarment		
<b>Company Name</b> William M Stringer	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip Code</b>
<b>FEIN:</b>	<b>Barred Until</b> 12/18/2006	<b>Fiscal Officer Notes:</b> See Mac Stringer Painting		
<b>Company Name</b> William Valentine	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip Code</b>
<b>FEIN:</b>	<b>Barred Until</b> 09/11/2008	<b>Fiscal Officer Notes:</b> As an individual. See Hamax Construction Corp		
<b>Company Name</b> Wilson Tank Builders Inc	<b>Address</b> 646 North Broad Street	<b>City</b> Grove City	<b>State</b> PA	<b>Zip Code</b> 16127
<b>FEIN:</b> 25-1773019	<b>Barred Until</b> 05/08/2006	<b>Fiscal Officer Notes:</b> DOL Falsified records		
<b>Company Name</b> Yaboo Fence Company	<b>Address</b> 10 High Street	<b>City</b> West Nyack	<b>State</b> NY	<b>Zip Code</b> 10994
<b>FEIN:</b> 13-2656877	<b>Barred Until</b> 06/09/2004	<b>Fiscal Officer Notes:</b> DOL		
<b>Company Name</b> Zacharias Missirilakis	<b>Address</b> 30-10 212th Street	<b>City</b> Bayside	<b>State</b> NY	<b>Zip Code</b> 11361
<b>FEIN:</b>	<b>Barred Until</b> 12/15/2004	<b>Fiscal Officer Notes:</b> President of J & V Decorating. Debarred by A.G.'s Office effective 12/15/2003		

