

TECHNICAL SPECIFICATIONS

DIVISION 1 – GENERAL REQUIREMENTS

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## SECTION 011100 - SUMMARY OF WORK

### PART 1 - GENERAL

<u>Article</u>	<u>Title</u>
1.1	Related Documents.
1.2	Location and Description of Work.
1.3	Work by Owner.
1.4	Sequence and Progress of Work.
1.5	Contractor's Use of the Site.
1.6	Easements and Rights-Of-Way.
1.7	Notices to Owners and Authorities of Properties Adjacent to the Work.
1.8	Salvage of Equipment and Materials.

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other 01 Specification Sections, apply to this Section.
- B. In addition to specifications provided within these Contract Documents, work completed under this contract shall be covered by and in accordance with the New York State Department of Transportation (NYSDOT) Standard Specifications, current version, including all Addenda in effect on the date of advertisement for receipt of bids. The NYSDOT Standard Specifications are to be considered as and shall form a part of the agreement. Payment for all materials and construction costs associated with the unit price bid for each item shall be included in the lump sum bid price for the Base Bid and the Bid Alternate.

#### 1.2 LOCATION AND DESCRIPTION OF WORK

- A. The Town of Hamburg, New York has allocated funding for reconstruction of the parking lot at Hamburg Town Hall. The work under the Base Bid shall include the following work, including all other work not described but necessary and required to provide the work described complete and ready for use.
  - 1. Milling and paving of the entire parking lot behind the Town Hall building at 6100 South Park Avenue, and the one-way entry and exit drives that intersect with South Park Avenue. As part of the work, modifications will be made to the parking lot to include two new curbed and one new non-curbed lawn areas where the existing pavement shall be removed in full. Temporary relocation of existing dumpsters to adjacent grass area during milling and paving and returning to original location upon completion of work. Coordination with Town Highway Department to accommodate their resetting of catch basin frames and grates.
  - 2. Protection of existing trees and landscaping during the full construction, and installation and maintenance of erosion and sediment control measures.

3. Construction of a new parking area with five spaces, including concrete curb and sidewalk, on the north side of the entry drive approach, before the existing parking spaces on the south side of the building.
  4. Signage, pavement markings including parking space striping, no parking areas, and accessible spaces with access aisles, crosswalk striping, and vehicular directional arrows.
  5. Installation of seven precast wheel stops, to the south of the police building.
  6. Concrete sidewalk and a curb ramp adjacent to the new crosswalk at the curbed lawn area on the south side of Town Hall.
  7. A new catch basin with storm drain pipe connecting to an existing catch basin in the rear parking lot.
  8. Six bollards installed in front of the Police Station building, protecting / modifying an existing underground communication line as needed.
  9. Relocation of an existing card reader with base onto a new concrete pad at the south side of the Police Station building, including one bollard on each side of the card reader, and modification of existing underground conduit and wiring.
  10. One bike rack installed on a concrete pad in front of the Town Hall building.
  11. Placement of two spare underground electrical conduits from the front entrance through the south parking area, stubbed up above grade and capped for future use.
  12. A circular monument and flagpole island in front of the main entrance to the Town Hall building. The island shall include a circular concrete sidewalk, concrete flagpole area with two relocated and one new flagpole on new foundations, removal of two existing and construction of two new foundations for existing memorial monuments that shall be removed, stored, protected, and reset onto the new foundations upon completion of construction. Work includes the relocation of an existing 2" gas line to be routed around the new island, relocation of one existing lamp post to a new foundation located outside of the new island, and new floodlighting for monuments and flagpoles including modification of existing underground conduit from the existing locations to the new locations.
- B. In addition to the Base Bid, the Contract also includes a Bid Alternate that, if accepted, will be incorporated into the Contract. Bid Alternate #1 includes the includes the removal of an existing gravel area behind the Town Hall building, and construction of a curbed concrete patio area.
- C. Work under the Contract is limited by Town funding. Any quantities that are shown in the Bid Documents reflect the Engineer's best estimate of the amount of work that may be completed with the current available funding. It is possible that additional funding may be received during the project, and therefore the quantities of work may be adjusted to include work in excess of the quantities in the Bid Documents. If necessary, any work shown in the Contract Documents that is not completed due to funding limitations will be completed in the future. The final payment quantities of work will be adjusted accordingly to utilize all available funds.

- D. Contracting Method: The Work shall be awarded to one prime Contractor. The basis of award is the base bid amount of the Contract.
- E. The project has been designed by the Town's Engineering Consultant, Wendel. 375 Essjay Road, Suite 200, Williamsville, NY 14221.
- F. The Contractor shall adhere to the requirements for the preparation and delivery of Record Document information as contained in Section 017820.

### 1.3 WORK BY OWNER

- A. Owner will perform certain activities in connection with the Work as follows:
  - 1. Under the Base Bid, the Owner will make frame and grate adjustments to the existing frames and grates of the catch basins within the milling and paving area. The Contractor shall coordinate their work with the Owner.
  - 2. Under the Base Bid, the Owner will relocate existing dumpsters and containers to facilitate the milling and paving operations. The Contractor shall coordinate their work with the Owner.

### 1.4 SEQUENCE AND PROGRESS OF WORK

- A. Submit a Progress Schedule covering the entire Work.
- B. Contractor shall commence the Work promptly when the Contract Times commence running and shall perform the Work to achieve the Contract Times and the Milestones in this Specification section.
- C. The Contractor shall submit Shop Drawings sufficiently far in advance and perform the Work to meet the Contract Times and the Milestones in the Schedule of Completion. "Completion Time" in the Schedule of Completion is the number of days from the date the Contract Times commence running.

### 1.5 CONTRACTOR'S USE OF SITE

- A. Contractor shall have use of the Site for storage and the operations of workmen in locations as designated by the Owner.
- B. Contractor shall:
  - 1. Assume full responsibility for protection and safekeeping of products stored on or off the Site.
  - 2. Move stored products that interfere with the operations of Owner, other contractors or others performing work for Owner.
  - 3. Obtain and pay for all additional storage or work areas required for its operations.

C. Limits on Contractor's use of Site are:

1. All major work (milling and paving) shall be performed on weekends or holidays so as to not disrupt Town Hall operations. Other work that does not interfere with day to day operations of the Town Hall may be completed during regular work hours. All work shall be coordinated with the Owner.
2. Contractor must coordinate garbage pickup and provide access for garbage pickup vehicles within the construction area.
3. Contractor must coordinate with local school districts to maintain safe and timely school bus service within the construction area.
4. Contractor must coordinate with the Town of Hamburg to maintain access for police and emergency vehicles and highway maintenance vehicles.
4. Heavy equipment shall access the parking lot and work areas from either end of the project work limits as per discussions with Town of Hamburg.

1.6 EASEMENTS AND RIGHTS-OF-WAY

- A. Confine construction operations within the limits as shown. Use due care in placing construction tools, equipment, excavated materials, and pipeline materials and supplies in order to avoid damage to property and interference with traffic. Do not enter any private property outside the designated construction boundaries without written permission from the owner of the property.
- B. Within Highway Rights-of-Way: Contractor shall obtain all permits. All Work performed and all operations of Contractor, its employees, or Subcontractors within the limits of highway rights-of-way shall conform to the requirements and be under the control (through Owner) of the highway authority owning, or having jurisdiction over and control of, the right-of-way. No work within the highway rights-of-way is anticipated under this contract.

1.7 NOTICES TO OWNERS OF PROPERTIES ADJACENT TO THE WORK

- A. Notify owners of adjacent property and utilities when prosecution of the Work may affect them.
- B. When it is necessary to temporarily obstruct access to property, or when any utility service connection must be interrupted, provide notices sufficiently in advance to enable the affected persons to provide for their needs. Conform notices to any applicable local ordinance and, whether delivered orally or in writing, include appropriate information concerning the interruption and instructions on how to limit inconvenience caused thereby.

1.8 SALVAGE OF EQUIPMENT AND MATERIALS

- A. Existing equipment and materials removed, and not shown or specified to be reused as a part of the Work, shall become Contractor's property, except the following items which shall remain Owner's property:
  - 1. Castings including catch basin grates, manhole covers and frames, and curb inlets.
- B. Existing equipment and materials removed by Contractor shall not be reused in the Work, except where so specified or indicated.
- C. Carefully remove, in a manner to prevent damage, all equipment and materials specified or indicated to be salvaged and reused or to remain the property of Owner. Store and protect salvaged items specified or indicated to be reused in the Work. Replace in kind or with new items any items damaged in removal, storage, or handling through carelessness or improper procedures.

END OF SECTION 011100

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SECTION 011310 - SCHEDULE OF COMPLETION

PART 1 - GENERAL

1.1 DESCRIPTION

- A. CONTRACTOR shall commence the Work promptly when the Contract Times commence running and shall perform the Work to achieve the Contract Times in this Specification section.
- B. The Schedule of Completion describes selected Project components and is not intended to describe all the Work or its constraints, interrelationships, or sequentially required Work.
- C. Achieving the Schedule of Completion is necessary for the OWNER to meet certain funding deadlines and schedule for returning the project area to service as presented to Town residents.

1.2 SCHEDULE OF COMPLETION

- A. The Contractor shall submit Shop Drawings sufficiently far in advance and perform the Work to meet the Contract Times in the Schedule of Completion. "Completion Time" in the Schedule of Completion is the number of days from the date the Contract Times commence running.
- B. The Schedule of Completion shall be as follows:

SCHEDULE OF COMPLETION		
Areas	Activity	Completion Date/ Completion Time
ALL	Substantial Completion	90 calendar days, following Notice to Proceed
ALL	Final Completion	120 calendar days, following Notice to Proceed

END OF SECTION 011310

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SECTION 011410 - WORK IN HIGHWAY RIGHTS-OF-WAY

PART 1 GENERAL

1.1 DESCRIPTION

- A. CONTRACTOR shall obtain necessary permits, arrange inspections required by the highway owner, and pay all charges. CONTRACTOR shall conform to applicable rules and regulations of the highway owner.
- B. Highway owners having jurisdiction over the Work include:
  - 1. South Park Avenue: New York State Department of Transportation (NYSDOT)
  - 2. Hamburg Town Hall property: Town of Hamburg
- C. CONTRACTOR shall implement means necessary to prevent accidents due to the Work. Provide flagmen, barricades, lights, signs and other precautions to provide safe conditions.
- D. Work shall be located as shown on the Drawings. CONTRACTOR shall install materials, pipe, fittings, and adapters that are required to implement crossings of existing pipelines, utilities, and other structures. A supply of pipe fittings, adapters and short lengths shall be on hand to expedite utility crossings required for the Work.
- E. Pavement: Pavement reconstruction shall conform to the requirements of the highway OWNER and the Contract Documents.

END OF SECTION 011410

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## SECTION 011430 - COORDINATION WITH OWNER'S OPERATIONS

### PART 1 GENERAL

#### 1.1 DESCRIPTION

##### A. Scope:

1. This Section specifies requirements for coordinating with OWNER's operations during the Work and provides requirements for tie-ins and shutdowns necessary to complete the Work without impact on OWNER's operations other than as allowed herein.
2. CONTRACTOR shall provide labor, materials, tools, equipment and incidentals shown, specified and required to coordinate with OWNER's operations during the Work.
3. Except for the shutdowns specified herein, the Work shall be performed such that the OWNER's system remains in continuous satisfactory operation during the Project. Work shall be scheduled and conducted by CONTRACTOR such that it does not impede the OWNER's operations.

##### B. Coordination:

1. OWNER shall be kept fully informed of CONTRACTOR'S Work that may affect OWNER'S operations. CONTRACTOR shall notify OWNER and ENGINEER a minimum of 48 hours prior to the beginning of Work which may cause such interference to OWNER'S operations.

##### C. Related Sections:

1. Section 011100, Summary of Work.
2. Section 017230, Cutting and Patching.
3. Section 017240, Connections to Existing Facilities.

- D. CONTRACTOR has the option of providing additional temporary facilities that can eliminate or mitigate a constraint without additional cost to the OWNER, provided it does not present hazards to personnel, structures, and equipment, that it does not adversely affect the OWNER's ability to comply with permits and operating requirements, does not generate odors and other nuisances, and that requirements of the Contract Documents are fulfilled.

- E. Coordinate shutdowns with OWNER and ENGINEER. When possible, combine multiple tie-ins into a single shutdown to minimize impacts on OWNER'S operations and processes.

#### 1.2 SUBMITTALS

- A. For Work which may affect the OWNER'S operations and for proposed connections, including shutdowns and tie-ins, submit to the ENGINEER for approval the following:
1. Detailed schedules and descriptions of construction procedures and work sequencing.
  2. Inventory of labor, materials, equipment and supplies needed to perform the Work.
  3. Detailed description of all preparatory work.
  4. Submittals required for equipment described under other Sections.
  5. The plan shall clearly demonstrate the CONTRACTOR'S ability to meet the time limitations specified.
  6. All information submitted shall be in conformance with Section 01330, Submittal Procedures.

### 1.3 GENERAL CONSTRAINTS

- A. If required, all operations of existing valves required for the Work shall be coordinated by OWNER. No valve or other item of equipment shall be operated without knowledge of the OWNER. OWNER does not guarantee the operations or water tightness of any valves or other items of equipment. CONTRACTOR shall provide all equipment, materials, pumping equipment, etc., as required to control all water as necessary for the performance of the Work in a dry condition at no additional cost to the OWNER.
- B. These constraints apply to coordination with OWNER's operations:
1. CONTRACTOR shall schedule and perform start-ups for Monday through Thursday. Equipment and systems shall not be placed into operation on Friday, Saturday, and Sunday without prior approval of OWNER.
  2. Dead End Valves or Pipe: CONTRACTOR shall provide blind flanges, watertight bulkheads, or valve at the temporary or permanent terminus of a pipe. Blind flanges and bulkheads shall be suitable for the service and braced and blocked, as required or as directed by ENGINEER. Temporary valves shall be suitable for the service. Where a valve is provided at a permanent terminus of a pipe, also provide on the downstream side of the valve a blind flange with a drain/flushing connection.
  3. Removals shall be made with caution to prevent damage to existing facilities.
  4. CONTRACTOR shall maintain a clean and dry work area by pumping and properly disposing of fluid that accumulates in work areas.
  5. Draining and Cleaning of Piping:
    - a. Unless otherwise specified, CONTRACTOR shall dewater pipelines at the beginning of each shutdown. CONTRACTOR shall flush out, wash down, and clean pipelines and other work areas.
    - b. CONTRACTOR shall remove liquids and solids and dispose of them at an appropriate location at the Site as directed by ENGINEER.
    - c. Spillage shall be brought to ENGINEER's attention immediately, both verbally and in writing. CONTRACTOR shall wash down and properly dispose of any spillage. If spillage is not suitable for discharge to the drainage

system, e.g., chemical spills, as determined by ENGINEER, CONTRACTOR shall remove the spillage by other method, such as vacuum truck, as accepted by ENGINEER.

#### 1.4 SEQUENCE OF WORK

- A. Where applicable, Work shall be performed in the specified sequence. Certain phases of the Work may require working during hours outside of regular business hours. Work may be accelerated from a later stage to an earlier stage if OWNER's operations are not adversely affected by the proposed sequence change, with ENGINEER's acceptance.
- B. It is hereby understood that Time is of Essence in performing all Work. Disruption of use of roads, storm sewers or other utility shall be minimized and be coordinated with the ENGINEER and OWNER.
- C. The CONTRACTOR shall complete the Work so as to meet the Substantial Completion and Final Completion dates established in the Contract Documents.

#### 1.5 TIE-INS

- A. Provide all necessary connectors, couplings, flanges, restraints, thrust blocking, temporary pumping and piping, etc necessary to make tie-ins. Make all investigations necessary to determine existing pipe conditions prior to tie-in work.

#### 1.6 SHUTDOWNS

- A. General:
  - 1. A shutdown is defined as when a portion of the normal operation of OWNER's facility, piping, has to be temporarily suspended or taken out of service to perform the Work.
  - 2. Work that may interrupt normal operations shall be accomplished at times convenient to OWNER.
  - 3. The CONTRACTOR may be limited to a specific period of time for the shutdown, and/or non-standard working hours, or the shutdown may be postponed for any amount of time so not to interfere with the delivery of water
  - 4. Provide at the Site in close proximity to the shutdown and tie-in work areas tools, equipment, spare parts and materials, both temporary and permanent, necessary to successfully complete the shutdown. Prefabrication of piping and other assemblies shall be completed to the degree possible prior to their associated shutdown. Demonstrate to ENGINEER's satisfaction that CONTRACTOR has complied with these requirements before starting shutdown.
  - 5. If CONTRACTOR's operations cause an unscheduled interruption of OWNER'S operations, CONTRACTOR shall immediately re-establish satisfactory operation for OWNER.
  - 6. Unscheduled shutdowns or interruptions of continued safe and satisfactory operation of OWNER's facilities that result in fines or penalties by authorities

having jurisdiction shall be the responsibility of CONTRACTOR if, in the ENGINEER's opinion, CONTRACTOR was negligent in the Work or did not exercise proper precautions in conducting the Work.

7. Work requiring service interruptions for tie-ins shall be performed during the scheduled shutdowns. Coordinate requirements for temporary, short-term shutdowns of smaller pipes and systems with the ENGINEER and OWNER.

## PART 2 – EXECUTION

### 2.1 GENERAL

- A. Work shall conform to requirements of Section 017230, Cutting and Patching, and Section 017240, Connections to Existing Facilities.

END OF SECTION 011430



## SECTION 012600 - CONTRACT MODIFICATION PROCEDURES

### PART 1 - GENERAL

#### 1.1 DESCRIPTION

##### A. General

1. This Section expands upon provisions of the General Conditions and Supplementary Conditions, and includes:
  - a. Requests for interpretation.
  - b. Clarification notices.
  - c. Minor changes in the Work and Field Orders.
  - d. Work Change Directives.
  - e. Proposal requests.
  - f. Change Order proposals.
  - g. Change Orders.
- B. Submit Contract modification documents to ENGINEER at address in Section 013300, Submittal Procedures.
- C. Retain at CONTRACTOR's office and at the Site a complete copy of each Contract modification document and related documents, and ENGINEER's response.

#### 1.2 REQUESTS FOR INTERPRETATION

##### A. General

1. Submit written requests for interpretation to ENGINEER. CONTRACTOR and OWNER may submit requests for interpretation.
2. Submit request for interpretation to obtain clarification or interpretation of the Contract Documents. Report conflicts, errors, ambiguities, and discrepancies in the Contract Documents using requests for interpretation.
3. Do not submit request for interpretation when other form of communication is appropriate, such as submittals, requests for substitutions or "or equals", notices, ordinary correspondence, or other form of communication. Improperly prepared or inappropriate requests for interpretation will be returned without response or action.

##### B. Procedure

1. Submit one original and two copies of each request for interpretation. Submit each request for interpretation with separate letter of transmittal.
2. ENGINEER will provide timely review of requests for interpretation. Allow sufficient time for review and response.

3. ENGINEER will maintain log of requests for interpretation. Copy of log will be provided upon request.
  4. ENGINEER will provide written response to each request for interpretation. One copy of ENGINEER's response will be distributed to:
    - a. CONTRACTOR.
    - b. OWNER.
    - c. Resident Project Representative (RPR).
    - d. ENGINEER.
  5. If ENGINEER requests additional information to make an interpretation, provide information requested within ten days, unless ENGINEER allows additional time, via correspondence referring to request for interpretation number.
  6. If CONTRACTOR or OWNER believes that a change in Contract Price or Contract Times or other change to the Contract is required, notify ENGINEER in writing before proceeding with Work associated with the request for interpretation.
- C. Each request for interpretation shall be submitted on the request for interpretation form included with this Section, or other form acceptable to ENGINEER.
1. Number each request for interpretation as follows: Numbering system shall be the Contract number and designation followed by a hyphen and three-digit sequential number. Example: First request for interpretation on the general contract for project titled, "Hamburg Town Hall Parking Lot" would be, "Hamburg Town Hall Parking Lot RFI No. 001".
  2. In space provided on form, describe the interpretation requested. Provide additional sheets as required. Include text and sketches as required in sufficient detail for ENGINEER's response.
  3. When applicable, request for interpretation shall include CONTRACTOR's recommended resolution.

### 1.3 CLARIFICATION NOTICES

#### A. General

1. Clarification notices, when required, will be initiated and issued by ENGINEER.
2. Clarification notices do not change the Contract Price or Contract Times, and do not alter the Contract Documents.
3. Clarification notices will be issued as correspondence or using clarification notice form, with additional information as required.

B. Procedure

1. One copy of each written clarification notice will be distributed to:
  - a. CONTRACTOR.
  - b. OWNER.
  - c. Resident Project Representative.
  - d. ENGINEER.
2. If CONTRACTOR or OWNER believes that a change in Contract Price or Contract Times or other change to the Contract is required, notify ENGINEER in writing before proceeding with Work associated with clarification notice.
3. If clarification notice is unclear, submit request for interpretation.

1.4 MINOR CHANGES IN THE WORK AND FIELD ORDERS

A. General

1. Field Orders, when required, will be initiated and issued by ENGINEER.
2. Field Orders authorize minor variations in the Work but do not change the Contract Price or Contract Times.
3. Field Orders will be in the form of Engineers Joint Contract Documents Committee (EJCDC) document C-942, "Field Order".
4. ENGINEER will maintain a log of Field Orders issued.

B. Procedure

1. One copy of each Field Order will be distributed to:
  - a. CONTRACTOR.
  - b. OWNER.
  - c. Resident Project Representative.
  - d. ENGINEER.
2. If CONTRACTOR or OWNER believes that a change in Contract Price or Contract Times or other change to the Contract is required, immediately notify ENGINEER in writing before proceeding with Work associated with the Field Order.
3. If Field Order is unclear, submit request for interpretation.

## 1.5 WORK CHANGE DIRECTIVES

### A. General

1. Work Change Directives, when required, order additions, deletions, or revisions to the Work.
2. Work Change Directives do not change the Contract Price or Contract Times but are evidence that the parties to the Contract expect that the change ordered or documented by the Work Change Directive will be incorporated in subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.
3. Work Change Directives will be in the form of EJCDC document C-940, "Work Change Directive".

### B. Procedure

1. Three originals of Work Change Directive signed by OWNER and ENGINEER will be furnished to CONTRACTOR, who shall promptly sign each original Work Change Directive and, within five days of receipt, return all originals to ENGINEER.
2. Original, signed Work Change Directives will be distributed as follows:
  - a. CONTRACTOR: One original.
  - b. OWNER: One original.
  - c. ENGINEER: One original.
3. One copy of each Work Change Directive will be distributed to:
  - a. Resident Project Representative.
4. When required by ENGINEER, document for the Work performed under each separate Work Change Directive, for each day, the number and type of workers employed and hours worked; equipment used including manufacturer, model, and year of equipment, and number of hours; materials used, receipts for and descriptions of materials and equipment incorporated into the Work, invoices and labor and equipment breakdowns for Subcontractors and Suppliers, and other information required by OWNER or ENGINEER, in a format acceptable to ENGINEER. Submit this documentation to ENGINEER as a Change Order proposal.

## 1.6 PROPOSAL REQUESTS

### A. General

1. Proposal requests may be initiated by ENGINEER or OWNER.
2. Proposal requests are for requesting the effect on Contract Price and Contract Times and other information relative to contemplated changes in the Work. Proposal requests do not authorize changes or variations in the Work, and do not change the Contract Price or Contract Times or terms of the Contract.
3. Proposal requests will be furnished using the proposal request form included with this Section.

### B. Procedure

1. One copy of each signed proposal request will be furnished to CONTRACTOR with one copy each to:
  - a. OWNER.
  - b. Resident Project Representative.
  - c. ENGINEER.
2. Submit request for interpretation to clarify conflicts, errors, ambiguities, and discrepancies in proposal request.
3. Upon receipt of proposal request, CONTRACTOR shall prepare and submit a Change Order proposal, in accordance with this Section, for the proposed Work described in the proposal request.

## 1.7 CHANGE ORDER PROPOSALS

### A. General

1. Submit written Change Order proposal to ENGINEER in response to each proposal request, and when CONTRACTOR believes a change in the Contract Price or Contract Times or other change to the terms of the Contract is required.

### B. Procedure

1. Submit to ENGINEER one original two copies of each Change Order proposal with accompanying documentation, and simultaneously submit two copies to OWNER. Submit each Change Order proposal with separate letter of transmittal.
2. ENGINEER will review Change Order proposal and either request additional information from CONTRACTOR or provide to OWNER recommendation regarding approval of the Change Order proposal.
3. If ENGINEER requests additional information to render a decision, submit required information within five days of receipt of ENGINEER's request,

- unless ENGINEER allows greater amount of time. Submit the required information via correspondence that refers to Change Order proposal number.
4. Upon completing review, one copy of ENGINEER's written response, if any, will be distributed to:
    - a. CONTRACTOR.
    - b. OWNER.
    - c. Resident Project Representative.
    - d. ENGINEER.
  5. If Change Order proposal is recommended for approval by ENGINEER and approved by OWNER, a Change Order will be issued.
  6. If parties do not agree on terms for the change, OWNER or CONTRACTOR may file a Claim against the other, in accordance with the General Conditions and the Supplementary Conditions.
- C. Each Change Order proposal shall be submitted on the Change Order proposal form included with this Section, or other form acceptable to ENGINEER.
1. Number each Change Order proposal as follows: Numbering system shall be the Contract number and designation followed by a hyphen and three-digit sequential number. Example: First Change Order proposal for the general contract for project named "Hamburg Town Hall Parking Lot" would be, "Hamburg Town Hall Parking Lot Proposal No. 001".
  2. In space provided on form:
    - a. Describe scope of each proposed change. Include text and sketches on additional sheets as required to provide detail sufficient for ENGINEER's review and response. If a change item is submitted in response to proposal request, write in as scope, "In accordance with Proposal Request No." followed by the proposal request number. Provide written clarifications, if any, to scope of change.
    - b. Provide justification for each proposed change. If change is in response to proposal request, write in as justification, "In accordance with Proposal Request No." followed by the proposal request number.
    - c. List the total change in Contract Price and Contract Times for each proposed change.
  3. Unless otherwise directed by ENGINEER, attach to the Change Order proposal detailed breakdowns of pricing (Cost of the Work and CONTRACTOR's fee) including:
    - a. List of Work tasks to accomplish the change.

- b. For each task, labor cost breakdown including labor classification, total hours per labor classification, and hourly cost rate for each labor classification.
- c. Construction equipment and machinery to be used, including manufacturer, model, and year of manufacture, and number of hours for each.
- d. Detailed breakdown of materials and equipment to be incorporated into the Work, including quantities, unit costs, and total cost, with Supplier's written quotations.
- e. Breakdowns of the Cost of the Work and fee for Subcontractors, including labor, construction equipment and machinery, and materials and equipment incorporated into the Work, other costs, and Subcontractor fees.
- f. Breakdown of other costs eligible, in accordance with the General Conditions and the Supplementary Conditions.
- g. Other information required by ENGINEER.
- h. CONTRACTOR's fees applied to eligible CONTRACTOR costs and eligible Subcontractor costs.

## 1.8 CHANGE ORDERS

### A. General

1. Change Orders will be recommended by ENGINEER and signed by OWNER and CONTRACTOR, to authorize additions, deletions, or revisions to the Work, or changes to the Contract Price or Contract Times.
2. Change Orders will be in the form of EJCDC document C-941, "Change Order".

### B. Procedure

1. Three originals of each Change Order will be furnished to CONTRACTOR, who shall promptly sign each original Change Order and return all originals to ENGINEER within five days of receipt.
2. ENGINEER will sign each original Change Order and forward them to OWNER.
3. After approval and signature by OWNER, original Change Orders will be distributed as follows:
  - a. CONTRACTOR: One original.
  - b. OWNER: One original.
  - c. ENGINEER: One original.

4. One copy of each Change Order will be distributed to:
  - a. Resident Project Representative.

## PART 2 – EXECUTION

### 2.1 SUPPLEMENTS

- A. The forms listed below, following the “End of Section” designation, are part of this Specification Section:
  1. Request for Interpretation form (one page).
  2. Proposal Request form (one page).
  3. Change Order Proposal form (one page).

END OF SECTION 012600



HAMBURG TOWN HALL PARKING LOT  
WENDEL PROJECT NO: 300825PKLOT

TOWN PROJECT NO: 2025-06

**TOWN OF HAMBURG  
HAMBURG TOWN HALL PARKING LOT**

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**REQUEST FOR INTERPRETATION**

Contractor: \_\_\_\_\_  
Date Transmitted: \_\_\_\_\_  
Date Response Requested: \_\_\_\_\_

RFI No. \_\_\_\_\_  
Date Received: \_\_\_\_\_  
Date Response Transmitted: \_\_\_\_\_

Subject: \_\_\_\_\_  
Specification Section and Paragraph: \_\_\_\_\_

Drawing References: \_\_\_\_\_

---

**INTERPRETATION REQUESTED:**

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

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**ENGINEER'S RESPONSE:**

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

HAMBURG TOWN HALL PARKING LOT  
WENDEL PROJECT NO: 300825PKLOT

TOWN PROJECT NO: 2025-06

**TOWN OF HAMBURG  
HAMBURG TOWN HALL PARKING LOT**

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**PROPOSAL REQUEST**

Proposal Request No.: \_\_\_\_\_ Date: \_\_\_\_\_

Contract Name and No.: \_\_\_\_\_

Contractor: \_\_\_\_\_

Other Contracts Involved in Proposed Change: \_\_\_\_\_

---

**TO CONTRACTOR:** Please submit a complete Change Order proposal for the proposed modifications described below. If the associated Change Order proposal is approved, a Change Order will be issued to authorize adjustment so the scope of Work. **This Proposal Request is not a Change Order, Work Change Directive, or an authorization to proceed with the proposed Work described below.**

**SCOPE OF PROPOSED WORK:**

1. *Item:*
2. *Item:*
3. *Item:*

Proposal Requested By: \_\_\_\_\_

Signature of Requestor: \_\_\_\_\_

**TOWN OF HAMBURG  
HAMBURG TOWN HALL PARKING LOT**

**CHANGE ORDER PROPOSAL**

Change Order Proposal No.: \_\_\_\_\_ Date: \_\_\_\_\_

Submitted in Response to Proposal Request No.: \_\_\_\_\_

Contract Name and No.: \_\_\_\_\_

Contractor: \_\_\_\_\_ Subject: \_\_\_\_\_

The following changes to the Contract are proposed:

**SCOPE OF WORK:** *(attach and list supporting information as required)*

1. *Item:*

2. *Item:*

**JUSTIFICATION:**

1. *Item:*

2. *Item:*

**CHANGES IN CONTRACT PRICE AND CONTRACT TIMES:**

We propose that the Contract Price and Contract Times be changed as follows:

*For Contract Price, when requested by Engineer, attach detailed cost breakdowns, Supplier quotations, and other information required.*

*For Contract Times, state increase, decrease, or no change to Contract Times for Substantial Completion, readiness for final payment, and Milestones, if any. If increase or decrease, state specific number of days for changes to Contract Times.*

Description	Amount	Contract Times (days)	
		Substantial	Final
1. Item	\$0.00	0	0
2. Item	\$0.00	0	0
Total This Change Order Proposal	\$0.00	0	0

Changes to Milestones, if any: \_\_\_\_\_

The adjustment proposed is the entire adjustment to the Contract to which the proposer believes it is entitled as a result of the proposed change.

Change Order Proposal By: \_\_\_\_\_

Signature of Proposer: \_\_\_\_\_

HAMBURG TOWN HALL PARKING LOT  
WENDEL PROJECT NO: 300825PKLOT

TOWN PROJECT NO: 2025-06

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## SECTION 012901 - SCHEDULE OF VALUES

### PART 1 - GENERAL

#### 1.1 DESCRIPTION

- A. Submit to ENGINEER for acceptance a Schedule of Values that allocates cost to each item of the Work. The Schedule of Values is a list of line items, corresponding to each aspect of the Work, establishing in detail the value or cost of each major part of the Work.
- B. Upon request of ENGINEER, support values with data that substantiate their correctness.
- C. The preliminary Schedule of Values is submitted to the ENGINEER for initial review. The CONTRACTOR shall incorporate the ENGINEER's comments into the Schedule of Values and provide a re-submittal to the ENGINEER. The ENGINEER may require corrections and re-submittal of the Schedule of Values until it is acceptable.
- D. The Schedule of Values and the Progress Schedule updates shall be used as the basis for preparing each Application for Payment. The Schedule of Values may be used as a basis for negotiating the price of changes in the Work.
- E. Unit price payment items with their associated quantity shall be included in the Schedule of Values. Provide in the Schedule of Values a detailed breakdown of the unit prices when required by the ENGINEER.
- F. Schedule of Values requirements are listed below. Requirements for the preliminary Schedule of Values and the Schedule of Values are identical.
  - 1. Schedule of Values shall show the division of Work between CONTRACTOR and Subcontractors. Schedule of Values line items for Work to be done by a Subcontractor shall include the word, "(SUBCONTRACTED)".
  - 2. Schedule of Values shall include a breakdown of costs for materials and equipment, installation, and other costs used in preparation of the Bid by the CONTRACTOR and each Subcontractor. Schedule of Values shall include the purchase and delivery cost for materials and equipment for which CONTRACTOR may apply for payment as stored materials.
  - 3. Include separate amounts for each Specification section in the Contract Documents by structure, building, and work area.
  - 4. Identify each line item with a number corresponding to the associated Specification section number. List sub-items of major products or systems, as appropriate or when requested by ENGINEER.

5. The sum of the individual values shown on the Schedule of Values shall equal the total of the associated payment item. The sum of the payment item totals in the Schedule of Values shall equal the Contract Price.
6. Each line item shall include a directly proportional amount of CONTRACTOR'S overhead and profit. Do not include overhead and profit as a separate item.
7. CONTRACTOR shall include items for construction Progress Schedules, permits, General Conditions, and other items requested by the ENGINEER. These items shall be included in Applications for Payment on a schedule proposed by the CONTRACTOR and approved by the ENGINEER
8. Schedule of Values shall be prepared on 8-1/2-inch by 11-inch white paper, using form acceptable to the ENGINEER.

## 1.2 SUBMITTALS

- A. Submit the required number of copies of the preliminary Schedule of Values to ENGINEER for review within ten (10) days after the Notice to Proceed.
- B. Submit the required number of copies of the Schedule of Values to ENGINEER at least ten (10) days prior to the first Application for Payment. The first Application for Payment will not be processed without a Schedule of Values approved by the ENGINEER.
- C. When required by the ENGINEER, promptly submit an updated Schedule of Values to include cost breakdowns for changes in the Work, including Change Orders.

END OF SECTION 012910

## SECTION 013010 - PRE-CONSTRUCTION CONFERENCE

### PART 1 - GENERAL

#### 1.1 DESCRIPTION

- A. A pre-construction conference will be held for the Project. CONTRACTOR shall attend the conference prepared to discuss all items on the agenda. The representatives present for each party shall be authorized to act on their behalf.
- B. Purpose of the conference is to designate responsible personnel, establish working relationships, and establish administrative provisions for the Project. Matters requiring coordination will be discussed and procedures for handling such matters will be established.
- C. Date, Time and Location: Conference will be held after execution of the Contract and before Work starts at the Site. ENGINEER will determine the date, time, and location of the conference and advise the interested and involved parties.
- D. ENGINEER will distribute an agenda, preside at the conference, and prepare and distribute meeting minutes to all meeting participants and others as requested.
- E. CONTRACTOR shall provide data required and contribute appropriate items for discussion. Unless previously submitted to ENGINEER, CONTRACTOR shall bring to the conference a draft of each of the following:
  - 1. Progress Schedule.
  - 2. List of required Shop Drawings and submittals.
  - 3. Schedule of Values.
  - 4. CONTRACTOR'S Site-specific health and safety plan.
  - 5. List of emergency contact information.

#### 1.2 REQUIRED ATTENDANCE

- A. Conference shall be attended by CONTRACTOR'S project manager, Site superintendent, and major Subcontractors and major equipment Suppliers, as CONTRACTOR deems appropriate.
- B. Other attendees will be representatives of: OWNER, ENGINEER, and any others, as requested by OWNER, CONTRACTOR, or ENGINEER.

### 1.3 AGENDA

A. Agenda: A complete agenda will be furnished to CONTRACTOR prior to the conference. However, CONTRACTOR shall be prepared to discuss the following:

1. Designation of responsible personnel.
2. Communications and correspondence.
3. Coordination with other contractors.
4. Emergency contact information.
5. Review of scope of Work.
6. Review of Contract Times, Milestones, and completion dates.
7. Subcontractors.
8. Progress Schedule.
9. Schedule of Values.
10. Project coordination and coordination with OWNER'S operations.
11. Progress meetings.
12. Submittals and Shop Drawings: processing and schedule of submittals.
13. Substitutions.
14. Major equipment deliveries.
15. Payments, retainage, payrolls, and Substantial Completion.
16. Processing of Field Orders and Change Orders.
17. Use of premises, security, housekeeping, safety, CONTRACTOR'S responsibility for safety and first aid procedures, Site access.
18. Field offices, trailers, temporary facilities.
19. Storage of materials.
20. Construction photographs.
21. Record drawings.
22. Requirements for copies of Contract Documents and availability.
23. Layouts and surveys.
24. Hours of Work and overtime.
25. Restoration.
26. Permits.
27. Insurance in force.
28. Safety and security.
29. Disposal of demolition materials.
30. Next meeting.
31. General discussion and questions.
32. Site visit if required.

END OF SECTION 013010



SECTION 013100 - PROJECT COORDINATION

PART 1 - GENERAL

1.1 DESCRIPTION

- A. As more fully set forth in of the General Conditions, CONTRACTOR shall coordinate the Work, including his Subcontractors and Suppliers, as required to complete the Work within the Contract Times.
- B. As set forth in the General Conditions, CONTRACTOR shall cooperate with and coordinate the Work with other CONTRACTORS, including utility service companies or OWNER'S employees performing Work at the Site, per Section 011100 Articles 1.3, 1.4, and 1.5.
- C. CONTRACTOR will not be responsible or liable for damage unless it is through the negligence of CONTRACTOR.
- D. CONTRACTOR shall attend and participate in all project coordination and progress meetings and report on the progress of all Work and compliance with Progress Schedules.

END OF SECTION 013100

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## SECTION 013120 - PROGRESS MEETINGS

### PART 1 - GENERAL

#### 1.1 DESCRIPTION

- A. Progress meetings will be held throughout the Project. CONTRACTOR shall attend each meeting prepared to discuss all items on the agenda. The representatives present for each party shall be authorized to act on their behalf.
- B. Date and Time:
  - 1. Regular Meetings: As scheduled by OWNER.
  - 2. Other Meetings: As required.
- C. Place: Hamburg Town Hall, located at 6100 South Park Avenue, Hamburg, NY 14075.
- D. ENGINEER will preside at meetings and prepare and distribute meeting minutes to all meeting participants and others as requested.
- E. CONTRACTOR shall provide data required including, at each meeting, a minimum of ten (10) copies of each of the following handouts:
  - 1. List of work accomplished since the previous meeting.
  - 2. Schedule of Work (with specific starting and ending dates for each task) planned until the next meeting.
  - 3. "Look-ahead" schedule of Work for shutdowns, equipment installations, and other important Milestones.
  - 4. When applicable, list of upcoming, planned time off (with dates) for personnel with significant roles on the Project, and the designated contact person in their absence.

#### 1.2 MINIMUM ATTENDANCE

- A. CONTRACTOR:
  - 1. CONTRACTOR'S project manager.
  - 2. CONTRACTOR'S site superintendent.
  - 3. When needed for the discussion of a particular agenda item, CONTRACTOR shall require representatives of Subcontractors or Suppliers to attend a meeting.
- B. ENGINEER'S project manager and Resident Project Representative.
- C. OWNER's representative, as required.

D. Others, as appropriate.

### 1.3 AGENDA

A. Agenda will include, but will not necessarily be limited to, the following:

1. Review and comment on minutes of previous meeting.
2. Review of progress since the previous meeting.
3. Planned progress for next period.
4. Review of overall project schedule, including delivery schedules and corrective measures, if required
5. Review of status of critical submittals, including Shop Drawings and Applications for Payment.
6. Review of Contractor Requests for Information (RFI).
7. Review of change issues and change orders.
8. Problems, conflicts and observations.
9. Quality standards and control.
10. Coordination between parties.
11. Safety concerns.
12. Permits.
13. Record drawings.
14. Punch list status.
15. Other business.

END OF SECTION 013120

## SECTION 013200 - PROGRESS SCHEDULE

### PART 1 - GENERAL

#### 1.1 DESCRIPTION

- A. Provide Progress Schedule conforming to the requirements below, unless otherwise approved by ENGINEER.
- B. Update Progress Schedules every month, unless otherwise specified or directed by ENGINEER.
- C. ENGINEER's acceptance of the Progress Schedule, and comments or opinions concerning the various schedule documents and reports shall not control the CONTRACTOR's independent judgment concerning means, methods, techniques, sequences and procedures of construction. CONTRACTOR is solely responsible for meeting the Contract Times.

#### 1.2 CONTENT

- A. Shop Drawing submittal dates and required approval dates.
- B. Product delivery dates.
- C. Field-testing dates.
- D. Dates for beginning and completing each phase of the Work by Activity and by trades.
- E. Add dates in which access to each roadway within project area are required by school bus and garbage pick-up.

#### 1.3 FORMAT

- A. Type: Horizontal bar chart.
- B. Sheet Size: 11-inches by 17-inches.
- C. Time Scale: Indicate first date of each work week.

D. Organization:

1. Group Shop Drawing submittals and reviews into a separate subschedule.
2. Group product deliveries into a separate subschedule.
3. Group construction into a separate subschedule by activity.
4. Group critical activities that dictate the rate of progress into a separate subschedule.
5. Organize each subschedule by Specification Section number.

E. Activity Designations: Show title and related Specification Section number.

1.4 SUBMITTALS

- A. Submit preliminary Progress Schedule in accordance with Section 1.3 and the General Conditions.
- B. Submit updated Progress Schedules at progress meetings. If a Progress Schedule remains unchanged from one period to the next, submit a written notice to that effect.
- C. Unless otherwise specified, submit four copies of each Progress Schedule. One copy will be reviewed by the ENGINEER and returned. The other copies will be retained by the ENGINEER.
- D. Attach a letter of transmittal to each submittal and include the following information in the letter:
  1. A listing of items, which have changed since the last submittal.
  2. Discussion of problems causing delays, anticipated length of delays, and proposed countermeasures.

END OF SECTION 013200

## SECTION 013240 - CONSTRUCTION PHOTOGRAPHS

### PART 1 - GENERAL

#### 1.1 PRE-CONSTRUCTION PHOTOGRAPHS

##### A. General

1. CONTRACTOR shall take a sufficient number of pre-construction photographs, so as to resolve any disputes, which may arise regarding the considerations prior to and subsequent to construction.
2. If a dispute arises where pre-construction photographs were not taken, the disputed area shall be restored to the extent directed by the ENGINEER and to the complete satisfaction of the ENGINEER.
3. CONTRACTOR shall furnish one set of color prints of the pre-construction photographs to the ENGINEER and shall make others available for review in settling any disputes.
4. Provide high quality digital photographs electronically. The file format shall be .jpg, .gif, or .tif. Electronic image filename shall describe the image; do not submit filenames automatically created by digital camera.
5. Place the following information on the back of each print and on front for digital photographs:
  - a. Date photograph was taken.
  - b. Title of Project.
  - c. Description of view shown in photograph.

END OF SECTION 013240

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## SECTION 013300 - SUBMITTAL PROCEDURES

### PART 1 – GENERAL

#### 1.1 DESCRIPTION

##### A. Scope

1. CONTRACTOR shall provide submittals in accordance with the General Conditions as modified by the Supplementary Conditions, and this Section.
2. Provide submittals well in advance of need for the material or equipment, or procedure (as applicable), in the Work and with ample time required for delivery of material or equipment and to implement procedures following ENGINEER's approval or acceptance of the associated submittal. Work covered by a submittal will not be included in progress payments until approval or acceptance of related submittals has been obtained in accordance with the Contract Documents.
3. CONTRACTOR is responsible for dimensions to be confirmed and corrected at the Site, for information pertaining solely to the fabrication processes and to techniques of construction, and for coordinating the work of all trades. CONTRACTOR's signature of submittal's stamp and letter of transmittal shall be CONTRACTOR's representation that CONTRACTOR has met his obligations under the Contract Documents relative to that submittal.

#### 1.2 TYPES OF SUBMITTALS

- A. Submittal types are classified as follows: 1) Action Submittals, 2) Informational Submittals, 3) Closeout Submittals, and 4) Maintenance Material submittals. Type of each required submittal is designated in the respective Specification Sections; when type of submittal is not specified in the associated Specification Section, submittal will be classified as follows:

1. Action Submittals include:
  - a. Shop Drawings.
  - b. Product data.
  - c. Delegated design submittals, which include documents prepared, sealed, and signed by a design professional retained by CONTRACTOR, Subcontractor, or Supplier for materials and equipment to be incorporated into the completed Work. Delegated design submittals do not include submittals related to temporary construction unless specified otherwise in the related Specification Section. Delegated design submittals include: design drawings, design data including calculations, specifications, certifications, and other submittals prepared by such design professional.
  - d. Samples.
  - e. Testing plans, procedures, and testing limitations.

2. Informational Submittals include:
    - a. Certificates.
    - b. Design data not sealed and signed by a design professional retained by CONTRACTOR, Subcontractor, or Supplier.
    - c. Pre-construction test and evaluation reports, such as reports on pilot testing, subsurface investigations, potential Hazardous Environmental Condition, and similar reports.
    - d. Supplier instructions, including installation data, and instructions for handling, starting-up, and troubleshooting.
    - e. Source quality control submittals (other than testing plans, procedures, and testing limitations), including results of shop testing.
    - f. Field or Site quality control submittals (other than testing plans, procedures, and testing limitations), including results of operating and acceptability tests at the Site.
    - g. Supplier reports.
    - h. Sustainable design submittals (other than sustainable design closeout documentation).
    - i. Special procedure submittals, including health and safety plans and other procedural submittals.
    - j. Qualifications statements.
  3. Closeout Submittals include:
    - a. Maintenance contracts.
    - b. Operations and maintenance data.
    - c. Bonds, such as maintenance bonds and bonds for a specific product or system.
    - d. Warranty documentation.
    - e. Record documentation.
    - f. Sustainable design closeout documentation.
    - g. Software.
  4. Maintenance Material Submittals include:
    - a. Spare parts.
    - b. Extra stock materials.
    - c. Tools.
  5. When type of submittal is not specified and is not included in the list above, ENGINEER will determine the type of submittal.
- B. Not Included in this Section: Administrative and procedural requirements for following are covered elsewhere in the Contract Documents:
1. Requests for interpretations of the Contract Documents.
  2. Change Orders, Work Change Directives, and Field Orders.

3. Applications for Payment
4. Progress Schedules.
5. Photographic documentation.
6. Reports and documentation required in accordance with applicable permits
7. Site survey data.

### 1.3 SUBMITTALS REQUIRED IN THIS SECTION

#### A. Informational Submittals: Provide the following:

##### 1. Schedule of Submittals:

###### a. Timing:

- 1) Provide submittal within time frames specified in the Contract Documents.
- 2) Provide updated Schedule of Submittals with each submittal of the updated Progress Schedule.

###### b. Content:

In accordance with the General Conditions as modified by the Supplementary Conditions, and this Section. Requirements for content of preliminary Schedule of Submittals and subsequent submittals of the Schedule of Submittals are identical. Identify on Schedule of Submittals all submittals required in the Contract Documents. Updates of Schedule of Submittals shall show scheduled dates and actual dates for completed tasks. Indicate submittals that are on the Project's critical path.

Indicate the following for each submittal:

- 1) Date by which submittal will be provided to ENGINEER.
  - 2) Whether submittal will be for a substitution or "equal". Procedures for substitutions and "or equals" are specified in the General Conditions and the Division 1 Specifications
  - 3) Date by which ENGINEER's response is required. At least 10 days shall be allowed from ENGINEER's receipt of each submittal. Allow increased time for large or complex submittals.
  - 4) For submittals for materials or equipment, date by which material or equipment must be at the Site to avoid delaying the Work and to avoid delaying the work of other contractors.
- c. Prepare Schedule of Submittals using same software, and in same format, specified for Progress Schedules.
  - d. Coordinate Schedule of Submittals with the Progress Schedule.

- e. Schedule of Submittals that is not compatible with the Progress Schedule, or that does not indicate submittals on the Project's critical path, or that places extraordinary demands on ENGINEER for time and resources, is unacceptable. Do not include submittals not required by the Contract Documents.
- f. In preparing Schedule of Submittals:
  - 1) Considering the nature and complexity of each submittal, allow sufficient time for review and revision.
  - 2) Reasonable time shall be allowed for: ENGINEER's review and processing of submittals, for submittals to be revised and resubmitted, and for returning submittals to CONTRACTOR.
  - 3) Identify and accordingly schedule submittals that are expected to have long anticipated review times.

#### 1.4 PROCEDURE FOR SUBMITTALS

- A. Submittal Identification System: Use the following submittal identification system, consisting of submittal number and review cycle number.
  - 1. Submittal Number: Shall be separate and unique number correlating to each individual submittal required. CONTRACTOR shall assign submittal number as follows:
    - a. First part of submittal number shall be the applicable Specification Section number, followed by a hyphen.
    - b. Second part of submittal number shall be a three-digit number (sequentially numbered from 001 through 999) assigned to each separate and unique submittal provided under the associated Specification Section.
    - c. Typical submittal number for the third submittal provided for Section 15061, Ductile Iron Pipe, would be "15061-003".
  - 2. Review Cycle Number: Shall be a letter designation indicating the initial submittal or re-submittal associated with each submittal number:
    - a. "-001" = Initial (first) submittal.
    - b. "-002" = Second submittal (e.g., first re-submittal).
    - c. "-003" = Third submittal (e.g., second re-submittal).

3. Examples:

Example Description	Submittal Identification	
	Submittal No.	Review Cycle
Initial (first) review cycle of the second submittal provided under Section 150510, Buried Piping Installation	150510-002-	001
Second review cycle (first re-submittal) of third submittal provided under Section 150510, Buried Piping Installation	150510-002-	002

B. Letter of Transmittal for Submittals:

1. Provide separate letter of transmittal with each submittal. Each submittal shall be for one Specification Section.
2. At beginning of each letter of transmittal, provide a reference heading indicating: CONTRACTOR's name, OWNER's name, Project name, Contract name and number, transmittal number, and submittal number.
3. For submittals with proposed deviations from requirements of the Contract Documents, letter of transmittal shall specifically describe each proposed variation.

C. Contractor's Review and Stamp:

1. Contractor's Review: Before transmitting submittals to ENGINEER, review submittals to:
  - a. Assure proper coordination of the Work;
  - b. Determine that each submittal is in accordance with CONTRACTOR's desires;
  - c. Verify that submittal contains sufficient information for ENGINEER to determine compliance with the Contract Documents.
2. Incomplete or inadequate submittals will be returned without review.
3. Contractor's Stamp and Signature:
  - a. Each submittal provided shall bear CONTRACTOR's stamp of approval and signature, as evidence that submittal has been reviewed by CONTRACTOR and verified as complete and in accordance with the Contract Documents.
  - b. Submittals without CONTRACTOR's stamp and signature will be returned without review. Signatures that appear to be computer-generated will be regarded as unsigned and the associated submittal will be returned without review.

c. CONTRACTOR's stamp shall contain the following:

"Project Name: \_\_\_\_\_

Contractor's Name: \_\_\_\_\_

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

----- *Reference* -----

Item/Submittal Title: \_\_\_\_\_

Specifications:

Section: \_\_\_\_\_

Page No.: \_\_\_\_\_

Paragraph No.: \_\_\_\_\_

Drawing No.: \_\_\_\_\_ of \_\_\_\_\_

Location of Work: \_\_\_\_\_

Submittal No. and Review Cycle: \_\_\_\_\_

Coordinated by Contractor with Submittal Nos.: \_\_\_\_\_

I hereby certify that the Contractor has satisfied Contractor's obligations under the Contract Documents relative to Contractor's review and approval of this submittal.

Approved By (for Contractor): \_\_\_\_\_"

D. Submittal Marking and Organization:

1. Mark on each page of submittal and each individual component submitted with submittal number and applicable Specification paragraph.
2. Arrange submittal information in same order as requirements are written in the associated Specification Section.
3. Each Shop Drawing sheet shall have title block with complete identifying information satisfactory to ENGINEER.
4. Package together submittals for the same Specification Section. Do not provide required information piecemeal.

E. Format of Submittal and Recipients:

1. Action Submittals and Informational Submittals: Furnish in accordance with Table 01330-A, except that submittals of Samples shall be as specified elsewhere in this Section:

**TABLE 01330-A: SUBMITTAL CONTACTS  
AND REQUIRED COPIES**

	<b>Address for Deliveries</b>	<b>Contact Person</b>	<b>E-mail Address</b>	<b>No. of copies</b>	<b>Remarks</b>
a	Town of Hamburg Engineering Department, 6100 South Park Avenue, Hamburg NY 14075	Camie Jarrell, P.E.	<a href="mailto:cjarrell@townofhamburgny.gov">cjarrell@townofhamburgny.gov</a>	3	

2. Samples:

- a. Securely label or tag Samples with submittal identification number. Label or tag shall include clear space at least three inches by three inches in size for affixing ENGINEER's review stamp. Label or tag shall not cover, conceal, or alter appearance or features of Sample. Label or tag shall not be separated from the Sample.
- b. Submit number of Samples required in Specifications. If number of Samples is not specified in the associated Specification Section, provide at least two identical Samples of each item required for ENGINEER's approval. Samples will not be returned to CONTRACTOR. If CONTRACTOR requires Sample(s) for CONTRACTOR's use, notify ENGINEER in writing and provide additional Sample(s). CONTRACTOR is responsible for furnishing, shipping, and transporting additional Samples.
- c. Deliver one Sample to ENGINEER's field office at the Site. Deliver balance of Samples to ENGINEER at address listed in Table 01330-A, unless otherwise directed by ENGINEER.

3. Closeout Submittals:

- a. Provide the following Closeout Submittals in accordance with Table 01330-A: maintenance contracts; bonds for specific products or systems; warranty documentation; and sustainable design closeout documentation. On documents such as maintenance contracts and bonds, include on each document furnished original signature of entity issuing the document.
- b. Operations and Maintenance Data: Submit in accordance with Section 01781, Operation and Maintenance Data.
- c. Record Documentation: Submit in accordance with Section 01782, Record Documentation.
- d. Software: not applicable

F. Distribution:

1. Distribution of Hardcopies: ENGINEER will distribute each reviewed submittal requiring ENGINEER's written response as follows:
  - a. CONTRACTOR: One copy (except closeout submittals and maintenance material submittals).
  - b. OWNER: One copy.
  - c. ENGINEER's File: One copy.

- G. Resubmittals: Refer to the General Conditions for requirements regarding resubmitting required submittals.

1.5 ENGINEER'S ACTION

- A. General: Engineer will not review submittals that do not bear Contractor's approval stamp and will return them without action.
- B. Action Submittals: Engineer will review each submittal, make marks to indicate corrections or modifications required, and return it. Engineer will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action taken, as follows:

1. Engineer's Action:

- a. Final Unrestricted Release: When the Engineer marks a submittal "No Exceptions Taken" the Work covered by the submittal may proceed provided it complies with requirements of the Contract Documents. Final payment depends on that compliance.
- b. Final-But-Restricted Release: When the Engineer marks a submittal "Provide as Corrected," the Work covered by the submittal may proceed provided it complies with notations or corrections on the submittal and requirements of the Contract Documents. Final payment depends on that compliance.
- c. Returned for Resubmittal: When the Engineer marks a submittal "Revise and Resubmit," do not proceed with Work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Revise or prepare a new submittal according to the notations; resubmit without delay.
  - 1) Do not use, or allow others to use, submittals marked "Revise and Resubmit" at the Project Site or elsewhere where Work is in progress.



- d. Returned for Resubmittal: When the Engineer marks a submittal “Rejected”, the Architect has not completed a full review, because it is clear that the submittal does not reflect the requirements of the Contract Documents. Do not proceed with work covered by the submittal, including purchasing, fabrication, delivery or other activity. Revise or prepare a new submittal that complies with the Contract Documents.
  - e. Other Action: If the submittal is primarily for information purposes, record purposes, special processing, or other contractor activity, the submittal will be returned marked “Reviewed for General Conformance Only”. These submittals have been received and processed for information only and not approved or disapproved by the architect.
- C. Informational Submittals: Engineer will review each submittal and will not return it or will reject and return it if it does not comply with Contract Document requirements.
- D. Submittals not required by the Contract Documents will not be reviewed and will be discarded or returned without action.

END OF SECTION 013300

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## SECTION 014200 - REFERENCES

### PART 1 - GENERAL

#### 1.1 DEFINITIONS

- A. General: Definitions of basic Contract terms are included in the General and Supplementary Conditions.
- B. Definitions of terms commonly found in the Specifications are as follows:
  - 1. Indicated: The term indicated refers to graphic representations, notes, or schedules on the Drawings, or to other paragraphs or schedules in the Specifications and similar locations in the other Contract Documents. Terms such as “shown”, “noted”, “scheduled”, and “specified” are used to help the user locate the reference. There is no limitation on the location.
  - 2. Installer (or applicator, or erector): An installer is the CONTRACTOR or another entity engaged by the CONTRACTOR, either as an employee or Subcontractor to perform a particular construction activity, including installation, erection, application or similar operations. Installers are required to be experienced in the operations they are engaged to perform.
  - 3. Trades: Use of a term such as “carpentry” does not imply that certain construction activities must be performed by accredited or unionized individuals of a corresponding generic name, such as “carpenter”. It also does not imply that specified requirements apply exclusively to trades persons of the corresponding generic name.

#### 1.2 ABBREVIATIONS

- A. Common abbreviations, which may be found in the Specifications, are:

alternating current	a-c
ampere	A
ante meridiem	a.m.
average	Avg
biochemical oxygen demand	BOD
brake horsepower	Bhp
British thermal unit	Btu
Centigrade	C
company	Co
cubic inch	cu in
cubic foot	cu ft

cubic yard	cu yd
cubic feet per minute	Cfm
cubic feet per second	cfs
decibel	db
degree Centigrade (or Celsius) (Write)	20 degrees C
degree Fahrenheit (Write)	68 degrees F
Diameter	diam
direct current	d-c
dollars	\$
each	ea
efficiency	eff
Fahrenheit	F
feet per hour	fph
feet	ft
feet per minute	fpm
feet per second	fps
figure	Fig
flange	flg
foot-pound	ft-lb
gallon	gal
gallons per minute	gpm
gallons per second	gps
gram	G
Hertz	Hz
horsepower	hp
hour	hr
inch	in.
inches water gauge	in. w.g.
inch-pound	in.-lb
inside diameter	id
kilovolt-ampere	kva
kilowatt	kw
kilowatt-hour	kwhr
linear foot	lin ft
liter	L
maximum	max

mercury	Hg
milligram	mg
milligrams per liter	mg/l
milliliter	ml
millimeter	mm
million gallons per day	mgd
million gallon	MG
minimum	Min
National Pipe Threads	NPT
net positive suction head	npsh
number	No.
ounce	Oz
outside diameter	Od
parts per million	Ppm
post meridiem	p.m.
pound	Lb
pounds per square inch	Psi
pounds per square inch absolute	Psia
pounds per square inch gage	Psig
pounds per square foot	Psf
revolutions per minute	Rpm
second	Sec
specific gravity	sp gr
square	Sq
square foot	sq ft
square inch	sq in.
square yard	sq yd
standard	Std
standard cubic feet per minute	Scfm
total dynamic head	Tdh
totally-enclosed-fan-cooled	Tefc
Volt	V

### 1.3 INDUSTRY STANDARDS

- A. Applicability of Standards: Except where the Contract Documents include more stringent requirements, applicable construction industry standards have the same

force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.

- B. Publication Dates: For applicable publication dates, refer to General Conditions, Article 3, Reference Standards.
- C. Conflicting Requirements: Where compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels refer to ENGINEER for a decision before proceeding.
- D. Copies of Standards: Each entity engaged in construction on the Project is required to be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not bound with the Contract Documents. Where standards are needed to perform a required construction activity, CONTRACTOR shall obtain copies of same from the publication source.

END OF SECTION 014200

## SECTION 015100 - TEMPORARY CONSTRUCTION FACILITIES

### PART 1 - GENERAL

#### 1.1 DESCRIPTION

- A. CONTRACTOR shall be responsible for all temporary construction facilities required for the Work. CONTRACTOR shall make all arrangements with utility service companies for temporary services and shall pay all costs associated therewith.
- B. Temporary construction facilities may include:
  - 1. Sanitary and First Aid Facilities.
- C. CONTRACTOR shall abide by all rules and regulations of the utility service company or authority having jurisdiction at the Site.
- D. Suitably enclosed chemical or self-contained toilets shall be provided for the use of general employees. Toilets shall be located near the Work Site and secluded from observation insofar as possible. Toilets shall be serviced at regular intervals, kept clean and supplied throughout the course of the Work.
- E. CONTRACTOR shall furnish and maintain a safe drinking water supply readily available to all workers.
- F. CONTRACTOR shall be responsible for all utility service costs until Final Acceptance of the Work.
- G. CONTRACTOR shall:
  - 1. Maintain and operate systems to ensure continuous service.
  - 2. Modify and extend systems as the Work progress requires.
  - 3. Completely remove temporary materials and equipment when their use is no longer required.
  - 4. Clean and repair damage caused by temporary installations or use of temporary facilities.
  - 5. Restore existing facilities used for temporary services to specified or to original condition.

END OF SECTION 015100

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SECTION 015220 - CONTRACTOR'S FIELD OFFICE

PART 1 - GENERAL

1.1 DESCRIPTION

A. Field Office and Furnishings:

1. As required by CONTRACTOR.

B. No separate field office is required for the ENGINEER under this Contract; however, the CONTRACTOR shall supply the following equipment for use by the ENGINEER:

1. Survey equipment and 100-foot tape.

END OF SECTION 015220

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## SECTION 015510 - MAINTENANCE AND PROTECTION OF TRAFFIC

### PART 1 - GENERAL

#### 1.1 DESCRIPTION

- A. All streets and traffic ways shall be kept open for the passage of traffic and pedestrians during the construction period, unless otherwise approved by the ENGINEER, in writing, or authority having jurisdiction at the Site over same.
- B. When required to cross, obstruct or temporarily close a street or traffic way, CONTRACTOR shall provide and maintain suitable bridges, detours or other approved temporary expedient for the accommodation of traffic. Closings shall be for the shortest time practical, and passage shall be restored immediately after completion of backfill and temporary paving or bridging.
- C. CONTRACTOR shall give the required advance notice to the OWNER as well as fire and police departments and school district of their proposed operations.
- D. CONTRACTOR shall give reasonable notice to owners or tenants of private property who may be affected by his operations. A minimum three (3) days notice shall be given.
- E. CONTRACTOR shall provide signs, signals, barricades, flares, lights and all other equipment, service and personnel required to regulate and protect all traffic and warn of hazards. All such Work shall conform to requirements of the OWNER or authority having jurisdiction at the Site. Remove temporary equipment and facilities when no longer required and restore grounds to original or to specified conditions.
- F. OWNER reserves the right to designate traffic routes for construction vehicles within the Village to protect recently paved streets and accommodate public events.

#### 1.2 TRAFFIC SIGNALS AND SIGNS

- A. Provide and operate traffic control and directional signals required to direct and maintain an orderly flow of traffic in all areas under CONTRACTOR'S control or affected by CONTRACTOR'S operations.
- B. Provide traffic control and directional signs, mounted on barricades or standard posts at the following locations:
  - 1. Each change of direction of a roadway and at each crossroad.
  - 2. Detours and hazardous areas.

3. Parking areas.

1.3 FLAGMEN

- A. Provide qualified and suitably equipped flagmen when construction operations encroach on traffic lanes, as required for regulation of traffic and in accordance with the requirements of the authority having jurisdiction at the Site.

1.4 FLARES AND LIGHTS

- A. Provide flares and lights during periods of low visibility:
  - 1. To clearly delineate traffic lanes, to guide traffic and to warn of hazardous areas.
  - 2. For use by flagmen in directing traffic.
- B. Provide illumination of critical traffic and parking areas.

1.5 PARKING CONTROL

- A. Control all CONTRACTOR related vehicular parking within the limits of the Work to preclude interference with public traffic or parking, access by emergency vehicles, OWNER'S operations, or construction operations. Provide temporary parking facilities for the public, as may be required because of construction or operations.
- B. Monitor parking of all construction and private vehicles:
  - 1. Maintain free vehicular access to and through parking areas.
  - 2. Prohibit parking on or adjacent to access roads or in non-designated areas.
  - 3. All construction vehicles must possess current registration.
  - 4. Private vehicles shall park only in the designated areas.

END OF SECTION 015510

## SECTION 015610 - SECURITY

### PART 1 - GENERAL

#### 1.1 DESCRIPTION

- A. CONTRACTOR shall safely guard all the Work, materials, equipment and property from loss, theft, damage and vandalism. CONTRACTOR'S duty to safely guard property shall include the OWNER'S property and other private property from injury or loss in connection with the performance of the Work.
- B. CONTRACTOR shall employ watchmen as required to provide the required security and prevent unauthorized entry.
- C. CONTRACTOR shall make no claim against the OWNER for damage resulting from trespass.
- D. CONTRACTOR shall be responsible for security and shall make good all damage to property of OWNER and others arising from failure to provide adequate security.
- E. If existing fencing or barriers are breached or removed for purposes of construction, CONTRACTOR shall provide and maintain temporary security fencing equal to the existing in a manner satisfactory to the ENGINEER and OWNER.
- F. Security measures taken by CONTRACTOR shall be at least equal to those usually provided by OWNER to protect its existing facilities during normal operation.
- G. Maintain security program throughout the Work until Substantial Completion.
- H. All costs for security as specified in this Section shall be borne by CONTRACTOR.

END OF SECTION 015610

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## SECTION 015700 - TEMPORARY CONTROLS

### PART 1 - GENERAL

#### 1.1 DESCRIPTION

- A. CONTRACTOR shall provide and maintain methods, equipment, and temporary construction, as required to provide controls over environmental conditions at the construction site and adjacent areas. Remove physical evidence of temporary facilities at completion of the Work.
- B. CONTRACTOR shall obtain all applicable local, County and State permits required for the construction of all Work, including applicable Stormwater/Stormwater Pollution Prevention Permits.
- C. CONTRACTOR shall submit the following statement on company letterhead, signed by an officer of the firm.

“I certify under penalty of law that I understand and agree to comply with the terms and conditions of the Town of Hamburg’s stormwater management program and agree to implement any corrective actions identified in the Town of Hamburg or a representative of the Town of Hamburg. I also understand that the Town of Hamburg must comply with the terms and conditions of the New York State Pollution Discharge Elimination System (SPDES) general permit for stormwater discharges from the Municipal Separate Stormwater Systems (MS4) and it is unlawful for any person to directly or indirectly cause or contribute to a violation of water quality standards. Further, I understand that any non-compliance by the Town of Hamburg will not diminish, eliminate or lessen my own liability.”

#### 1.2 NOISE CONTROL

- A. CONTRACTOR’S vehicles and equipment shall be such as to minimize noise to the greatest degree practicable. Noise levels shall conform to the latest OSHA standards and in no case will noise levels be permitted which interfere with the Work of the OWNER or others.

#### 1.3 DUST CONTROL

- A. CONTRACTOR shall be responsible for controlling objectionable dust caused by CONTRACTOR'S operation of vehicles and equipment, clearing or for any reason whatever. CONTRACTOR shall apply water or use other methods subject to the ENGINEER'S approval, which will keep dust in the air to a minimum. CONTRACTOR shall provide daily cleaning of roadway for dust control.

#### 1.4 WATER CONTROL

- A. Provide methods to control surface water and water from excavations and structures to prevent damage to the Work, the Site, or adjoining properties.
  - 1. Control fill, grading and ditching to direct water away from excavations, pits, tunnels and other construction areas and to direct drainage to proper runoff courses so as to prevent any erosion, damage or nuisance.
- B. Provide, operate and maintain equipment and facilities of adequate size to control surface water.
- C. Dispose of drainage water in a manner to prevent flooding, erosion, or other damage to any portion of the Site or to adjoining areas and in conformance with all environmental requirements. Protect storm sewers from runoff.

#### 1.5 POLLUTION CONTROL

- A. Provide methods, means and facilities required to prevent contamination of soil, water or atmosphere by the discharge of noxious substances from construction operations.
- B. Provide equipment and personnel, perform emergency measures required to contain any spillages, and to remove contaminated soils or liquids.
  - 1. Excavate and dispose of any contaminated earth offsite and replace with suitable compacted fill and topsoil.
- C. Take special measures to prevent harmful substances from entering public waters.
  - 1. Prevent disposal of wastes, effluents, chemicals, or other such substances adjacent to streams, or in sanitary or storm sewers.
- D. Provide systems for control of atmospheric pollutants.
  - 1. Prevent toxic concentrations of chemicals.
  - 2. Prevent harmful dispersal of pollutants into the atmosphere.
- E. All CONTRACTOR'S equipment used during construction shall conform to all current federal, state and local laws and regulations.

#### 1.6 EROSION CONTROL

- A. Plan and execute construction and earth work by methods to control surface drainage from cuts and fills, and from borrow and waste disposal areas, to prevent erosion and sedimentation.



1. Hold the areas of bare soil exposed at one time to a minimum.
  2. Provide temporary control measures such as berms, dikes and drains.
- B. Construct fills and waste areas by selective placement to eliminate surface silts or clays which will erode.
- C. Periodically inspect earthwork to detect any evidence of the start of erosion; apply corrective measures as required to control erosion.
- D. Coordinate erosion control requirements with the requirements of Article 1.4, above.

END OF SECTION 015700

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## SECTION 016200 - PRODUCT OPTIONS

### PART 1 - GENERAL

#### 1.1 DESCRIPTION

##### A. Scope:

1. CONTRACTOR's options for selection of products.
2. Requirements for consideration of "or-equal" products.

#### 1.2 PRODUCT OPTIONS

- A. For products specified only by reference standard or description, without reference to Supplier, provide products meeting that standard, by any Supplier or from any source that complies with the Contract Documents.
- B. For products specified by naming one or more products or Suppliers, provide the named products that comply with the Contract Documents, unless an "or-equal" or substitute product is approved by ENGINEER.
- C. For products specified by naming one or more products or Suppliers and the term, "or equal", when CONTRACTOR proposes a product or Supplier as an "or equal", submit to ENGINEER a request for approval of an "or equal" product or Supplier.
- D. For products specified by naming only one product or manufacturer and followed by words indicating that no substitution is permitted, there is no option and no substitution will be allowed.

#### 1.3 "OR EQUAL" PRODUCTS

- A. For proposed products not named in the Contract Documents and considered as an "or equal" as defined in the General Conditions, CONTRACTOR shall request in writing ENGINEER's approval of the "or equal". Request for approval of an "or equal" product shall accompany the Shop Drawing submittal for the proposed product and shall include:
  1. CONTRACTOR's request that the proposed product be considered as an "or equal" per the General Conditions, accompanied by CONTRACTOR's certifications as required in the General Conditions.
  2. Documentation adequate to show that proposed product does not require extensive revisions to the Contract Documents, that it is consistent with the Contract Documents, and will produce the indicated results and performance, and that it is compatible with other portions of the Work.

3. Detailed comparison of significant qualities of proposed product with those named in the Contract Documents. Significant qualities include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements specified.
4. Evidence that proposed product provides warranty equal to or better than specified.
5. List of similar installations for completed projects with project names and addresses, and names and address of design professionals and owners, if requested.
6. Samples, if requested.
7. Other information requested by ENGINEER.

END OF SECTION 016200

## SECTION 016610 - STORAGE AND PROTECTION OF PRODUCTS

### PART 1 - GENERAL

#### 1.1 DESCRIPTION

- A. This Section includes the general requirements for the storage and protection of products.

#### 1.2 STORAGE

- A. Store and protect products in accordance with manufacturer's recommendations and the Contract Documents.
- B. CONTRACTOR shall make all arrangements and provisions necessary for the storage of products. All excavated materials, construction equipment, and materials and equipment to be incorporated into the Work shall be placed so as not to injure the Work and existing facilities, and so that free access can be maintained at all times to all parts of the Work and to all public utility installations in the vicinity of the Work. Products shall be kept neatly and compactly stored in locations resulting in minimum inconvenience to other contractors, public travel, adjoining owners, tenants and occupants. Arrange storage in a manner to provide easy access for inspection.
- C. Areas available on the Site for storage of products shall be as shown or approved by the OWNER.
- D. CONTRACTOR shall be fully responsible for loss or damage, including theft, to stored materials and equipment.
- E. Do not open manufacturer's containers until time of installation, unless recommended by the manufacturer or otherwise specified.
- F. Do not store products in the structures being constructed unless approved by the ENGINEER in writing.
- G. Lawns and other private property shall not be used for storage without written permission of the OWNER or other person in possession or control of such premises.

#### 1.3 PROTECTION

- A. Equipment shall be boxed, crated or otherwise completely enclosed and protected during shipment, handling, and storage. Each container or piece of equipment shall be clearly marked with CONTRACTOR'S name, project name and location.

Equipment shall be stored on raised supports protected from exposure to the elements and shall be kept thoroughly dry at all times.

- B. Painted surfaces shall be protected against impact, abrasion, discoloration and other damage. Painted equipment surfaces that are damaged shall be repainted in their entirety to the satisfaction of the ENGINEER.

#### 1.4 UNCOVERED STORAGE

- A. The following types of products may be stored outdoors without cover:
  - 1. Reinforcing steel.
  - 2. Structural steel.
  - 3. Piping, except PVC or CPVC.
  - 4. Precast concrete items.
  - 5. Castings.
- B. Store the above products on wood blocking so there is no contact with the ground.

#### 1.5 COVERED STORAGE

- A. The following types of products may be stored outdoors if covered with material impervious to water:
  - 1. HDPE, PVC and CPVC piping.
- B. Tie down covers with rope and slope to prevent accumulation of water on covers.
- C. Store above products on wood blocking or skids.
- D. Store loose granular materials, covered with materials impervious to water, in a well-drained area or solid surfaces to prevent mixing with foreign matter.

#### 1.6 FULLY PROTECTED STORAGE

- A. Store all products not named above in buildings or trailers, which have a concrete or wooden floor, a roof, and fully closed walls on all sides.

#### 1.7 MAINTENANCE OF STORAGE

- A. Maintain periodic system of inspection of stored products on a scheduled basis to assure that:

1. State of storage facilities is adequate to provide required conditions.
2. Required environmental conditions are maintained on a continuing basis.
3. Products exposed to elements are not adversely affected.

END OF SECTION 016610

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## SECTION 017210 - PROTECTION OF THE WORK AND PROPERTY

### PART 1 - GENERAL

#### 1.1 DESCRIPTION

- A. CONTRACTOR shall be responsible for taking all precautions, providing all programs, and taking all actions necessary to protect the Work and all public and private property and facilities from damage as specified in the General Conditions and herein.
- B. In order to prevent damage, injury or loss, CONTRACTOR'S actions shall include, but not be limited to, the following:
  - 1. Store apparatus, materials, supplies, and equipment in an orderly, safe manner that will not unduly interfere with the progress of the Work or the work of any other contractor or utility service company.
  - 2. Provide suitable storage facilities for all materials, which are subject to injury by exposure to weather, theft, breakage, or otherwise.
  - 3. Place upon the Work or any part thereof only such loads as are consistent with the safety of that portion of the Work.
  - 4. Clean up frequently all refuse, rubbish, scrap materials, and debris caused by CONTRACTOR'S operations, to the end that at all times the Site of the Work shall present a safe, orderly and workmanlike appearance.
  - 5. Provide barricades and guard rails around openings, for scaffolding, for temporary stairs and ramps, around excavations, elevated walkways and other hazardous areas.
- C. CONTRACTOR shall not, except after written consent from proper parties, enter or occupy privately-owned land with personnel, tools, materials or equipment, except on easements provided herein.
- D. CONTRACTOR shall assume full responsibility for the preservation of all public and private property or facility on or adjacent to the Site. If any direct or indirect damage is done by or on account of any act, omission, neglect or misconduct in the execution of the Work by CONTRACTOR, it shall be restored by CONTRACTOR, at his expense, to a condition equal to that existing before the damage was done.

#### 1.2 BARRICADES AND WARNING SIGNALS

- A. Where Work is performed on or adjacent to any roadway, right-of-way, or public place, CONTRACTOR shall provide barricades, fences, lights, warning signs, danger signals, watchmen, and shall take other precautionary measures for the protection of persons or property and of the Work. Barricades shall be painted to be visible at night. From sunset to sunrise, CONTRACTOR shall furnish and maintain at least

one light at each barricade. Sufficient barricades shall be erected to keep vehicles from being driven on or into Work under construction. CONTRACTOR shall furnish watchmen in sufficient numbers to protect the Work. CONTRACTOR'S responsibility for the maintenance of barricades, signs, lights, and for providing watchmen shall continue until the Project is accepted by OWNER.

### 1.3 TREE AND PLANT PROTECTION

- A. CONTRACTOR shall protect existing trees, shrubs and plants on or adjacent to the Site that are shown or designated to remain in place against unnecessary cutting, breaking or skinning of trunk, branches, bark or roots.
- B. Materials or equipment shall not be stored or parked within the drip line.
- C. Temporary fences or barricades shall be installed to protect trees and plants in areas subject to traffic.
- D. Fires shall not be permitted.
- E. Within the limits of the Work, water trees and plants that are to remain, in order to maintain their health during construction operations.
- F. Cover all exposed roots with burlap, which shall be kept continuously wet. Cover all exposed roots with earth as soon as possible. Protect root systems from mechanical damage and damage by erosion, flooding, run-off or noxious materials in solution.
- G. If branches or trunks are damaged, prune branches immediately and protect the cut or damaged areas with emulsified asphalt compounded specifically for horticultural use in a manner approved by the ENGINEER.
- H. All damaged trees and plants that die or suffer permanent injury shall be removed and disposed of off-site when directed by the ENGINEER and replaced by a specimen of equal or better quality.

### 1.4 PROTECTION OF EXISTING STRUCTURES

- A. Underground Structures:
  - 1. Underground structures are defined to include, but are not limited to, all sewer, water, gas, and other piping, and manholes, chambers, electrical conduits, tunnels and other existing subsurface work located within or adjacent to the limits of the Work.
  - 2. Underground structures known to ENGINEER, except water, gas, sewer, electric, and telephone service connections, are shown. This information is shown for the assistance of CONTRACTOR, in accordance with the best information available, but is not guaranteed to be correct or complete.

3. CONTRACTOR shall explore ahead of his trenching and excavation Work and shall uncover all obstructing underground structures sufficiently to determine their location, to prevent damage to them and to prevent interruption to the services, which such structures provide. If CONTRACTOR damages an underground structure, he shall restore it to original condition at his expense.
4. Necessary changes in the location of the Work may be made by ENGINEER to avoid unanticipated underground structures.
5. If permanent relocation of an existing underground structure or other subsurface facility is required and is not otherwise provided for in the Contract Documents, ENGINEER will direct CONTRACTOR, in writing, to perform the Work, which shall be paid for under the provisions of the General Conditions.

B. Surface Structures:

1. Surface structures are defined as all existing buildings, structures and other facilities above the ground surface. Included with such structures are their foundations or any extension below the surface. Surface structures include, but are not limited to, buildings, tanks, walls, bridges, roads, dams, channels, open drainage, piping, poles, wires, posts, signs, markers, curbs, walks and all other facilities that are visible above the ground surface.

C. Protection of Underground and Surface Structures:

1. CONTRACTOR shall sustain in their places and protect from direct or indirect injury all underground and surface structures located within or adjacent to the limits of the Work. Such sustaining and supporting shall be done carefully and as required by the party owning or controlling such structure. Before proceeding with the Work of sustaining and supporting such structure, CONTRACTOR shall satisfy the ENGINEER that the methods and procedures to be used have been approved by the party owning same.
2. CONTRACTOR shall assume all risks attending the presence or proximity of all underground and surface structures within or adjacent to the limits of the Work. CONTRACTOR shall be responsible for all damage and expense for direct or indirect injury caused by his Work to any structure. CONTRACTOR shall repair immediately all damage caused by his Work, to the satisfaction of the owner of the damaged structure.
3. CONTRACTOR is advised to document pre-construction condition of all structures.

- D. All other existing surface facilities, including but not limited to, guard rails, posts, guard cables, signs, poles, markers, and curbs, which are temporarily removed to facilitate installation of the Work, shall be replaced and restored to their original condition at CONTRACTOR'S expense.

1.5 PROTECTION OF INSTALLED PRODUCTS AND LANDSCAPING

- A. Provide protection of installed products to prevent damage from subsequent operations. Remove protection facilities when no longer needed prior to completion of Work.
- B. Control traffic to prevent damage to equipment, materials and surfaces.

END OF SECTION 017210

## SECTION 017220 - FIELD ENGINEERING

### PART 1 - GENERAL

#### 1.1 DESCRIPTION

- A. The Contract Documents establish reference points for the Project for use by CONTRACTOR.
- B. CONTRACTOR shall:
  - 1. Provide civil, structural and other professional engineering services specified, or required to execute CONTRACTOR'S construction methods.
  - 2. Develop and make all detail surveys and measurements required for construction; including slope stakes, batter boards, and all other working lines, elevations and cut sheets. Develop and make all measurements to prepare Record Documents as the work progresses.
  - 3. Provide all material required for benchmarks, control points, batter boards, grade stakes, structure and pipeline elevation stakes, and other items.
  - 4. Be solely responsible for all locations, dimensions and levels. No data other than written directions of the ENGINEER shall justify departure from the dimensions and levels required by the Contract Documents.
  - 5. Safeguard all points, stakes, grade marks, monuments and benchmarks made or established on the Work. Re-establish same if disturbed, at no additional cost to the OWNER.
  - 6. Provide such facilities and assistance as may be necessary for ENGINEER to check line and grade points placed by CONTRACTOR. CONTRACTOR shall not do any excavation or embankment work until all cross-sectioning necessary for determining pay quantities has been completed and checked by ENGINEER.
  - 7. Provide notices and comply with all laws, ordinances, rules and regulations bearing on the conduct of the Work. If CONTRACTOR observes that the Contract Documents are at variance therewith, CONTRACTOR shall promptly notify the ENGINEER, in writing.
  - 8. Rectify all Work improperly installed because of not maintaining, not protecting or removing without authorization such established points, stakes, marks and monuments.
  - 9. Keep a transit and leveling instrument on the Site at all times and a skilled instrument man available whenever necessary for layout of the Work.

#### 1.2 CONTRACTOR'S SURVEYOR

- A. CONTRACTOR shall employ and retain, as needed, at the Work Site a surveyor with the experience and capability of performing all surveyor and layout tasks required of CONTRACTOR. The surveyor shall be a land surveyor registered in the State of New York. Tasks included are:

1. Provide all surveying equipment required including transit, level, stakes and required surveying accessories.
  2. Furnish all required lines and grades for construction of all facilities, structures, pipelines and site improvements.
  3. Keep professional, accurate, well organized, and legible notes of all measurements and calculations made while surveying and laying out the Work.
  4. Survey, locate, and record and redline drawings to accurately represent all utilities and buried structures prior to backfilling.
- B. Primary control reference points damaged or destroyed by CONTRACTOR will be re-established by the OWNER at CONTRACTOR'S expense.
- C. CONTRACTOR shall perform such surveys and computations as are necessary to determine quantities of Work performed or placed during each Progress Payment period and shall perform all surveys necessary for the ENGINEER to determine final quantities of Work in place.
- D. CONTRACTOR shall notify the ENGINEER at least 24 hours before performing a quantity survey and, unless waived in writing by the ENGINEER, quantity surveys shall be performed in the presence of the ENGINEER.
- E. From established primary control points, CONTRACTOR shall establish all lines and grades, and elevations necessary to control the Work, and shall be responsible for all measurements that may be required for execution of the Work to the tolerances prescribed in the Contract Documents.
- F. CONTRACTOR shall establish, place, and replace as required, such additional stakes, markers, and other controls as may be necessary for control, intermediate checks, and guidance of construction operations.

### 1.3 SURVEYING

- A. CONTRACTOR shall follow the following construction surveying guidelines for this project:
1. Alignment Staking: Each 50 feet on tangent; each 25 feet on curves.
  2. Slope Staking: Each 50 feet on tangent; each 25 feet on curves; restake every ten feet in elevation.
  3. Structure: Stake out structures, including elevations, checkouts prior to and during construction.
  4. Pipeline: Stake out pipelines including elevations, checkout prior to and during construction.
  5. Road: Tops each 50 feet on tangent and each 25 feet on curves.
  6. Cross-Section: Original, final and intermediate as required, for the structure sites and other locations as necessary for quantity surveys.
  7. Easement Staking: Each 50 feet on tangent; each 25 feet on curves. Also, wooden laths with flagging at 100 feet maximum spacing.

8. Record Staking: Provide permanent stake where blind flanges or caps are provided for future connecting, with a material acceptable to the ENGINEER.
- B. Temporary survey references set by CONTRACTOR for CONTRACTOR'S own use shall be established to at least second order accuracy (e.g., 1:10000). Construction staking used as a guide for the actual Work shall be set at least third order accuracy (e.g., 1:5000). The basis on which such orders are established shall be sufficient to provide the absolute margin for error specified below.
- C. The horizontal accuracy of easement staking shall be plus or minus 0.1 feet. The accuracy of all other staking shall be plus or minus 0.04 feet horizontally and plus or minus 0.02 feet vertically.
- D. Survey calculations shall include an error analysis sufficient to demonstrate the required accuracy.

#### 1.4 SUBMITTALS

- A. Submit name and address of surveyor or engineer to ENGINEER.
- B. On request of ENGINEER, submit documentation to verify accuracy of field engineering work.
- C. When requested by ENGINEER, submit certificate signed by Registered Professional Engineer or Surveyor certifying that elevations and locations of Work are in conformance with Contract Documents. Explain all deviations.
- D. Survey Submittals:
  1. Survey submittal shall be made as described herein. Submittal shall be signed and sealed by CONTRACTOR'S surveyor and shall include:
    - a. A complete survey plan that shall be submitted ten days prior to beginning survey Work.
    - b. Resumes shall be submitted of the Registered Land Surveyors conducting the Work ten days prior to beginning survey Work. During the course of the Work, a resume shall be submitted for each new Registered Land Surveyor working on the project at least ten days prior to the beginning of Work by such new Registered Land Surveyor.
    - c. A sample of the proposed survey field books to be maintained by CONTRACTOR'S surveyor. The sample shall have sufficient information and detail, including example calculations and notes, to demonstrate that the field books will be organized and maintained in a professional manner, conforming to the requirements of this Section.
    - d. The original field books shall be submitted within two days upon completion of the Work.

2. Certified survey.

## 1.5 RECORDS

- A. CONTRACTOR shall maintain on Site a complete and accurate log of all control and survey Work as it progresses.
  1. All survey data shall be in accordance with recognized professional surveying standards. All original field notes, computations, and other surveying data shall be recorded by CONTRACTOR'S surveyor in CONTRACTOR furnished hard-bound field books and shall be signed and sealed by CONTRACTOR'S surveyor. The completeness and accuracy of all survey Work, and the completeness and accuracy of the survey records, including the field books, shall be the responsibility of CONTRACTOR. Failure to organize and maintain survey records in a professional manner to allow reasonable and independent verification of all calculations by the ENGINEER, and to allow reasonable identification by the ENGINEER of all elevations, dimensions, and grades of the Work shall be cause for rejection of the survey records, including the field books.
  2. Illegible notes or data, or erasures on any page of the field books are not acceptable. Copied notes or data shall not be permitted. Corrections by ruling or lining out errors will be satisfactory only if initialed by the surveyor. Violation of the above may require resurveying the data in question.

END OF SECTION 017220



## SECTION 017230 - CUTTING AND PATCHING

### PART 1 - GENERAL

#### 1.1 DESCRIPTION

- A. This section includes administrative and procedural requirements for cutting and coring, and rough and finish patching of holes and openings in existing construction.
- B. Provide cutting, coring, fitting and patching, including attendant excavation and backfill, required to complete the Work, or to:
  - 1. Remove and replace defective Work or Work not conforming to requirements of the Contract Documents.
  - 2. Remove samples of installed Work as specified or required for testing.
  - 3. Remove construction required to provide for specified alterations or addition to existing work.
  - 4. Uncover Work to for ENGINEER'S observation of covered Work or observation by regulatory agencies having jurisdiction.
  - 5. Connect to completed Work that was not accomplished in the proper sequence.
  - 6. Remove or relocate existing utilities and pipes that obstruct the Work in locations where connections must be made.
  - 7. Make connections or alterations to existing or new facilities.

#### 1.2 QUALITY ASSURANCE

- A. Structural Work: Do not cut or patch structural elements in a manner that would change their load-carrying capacity as load-deflection ratio.
- B. Operating Elements: Do not cut or patch operating elements in a manner that would reduce their capacity to perform as intended. Do not cut or patch operating elements or related components in a manner that would increase maintenance requirements or decrease operational life or safety.

#### 1.3 SUBMITTALS

- A. Submit a written request to ENGINEER well in advance of executing cutting or alteration affecting:
  - 1. Design function or intent of Project.
  - 2. Work of OWNER or other contractors.
  - 3. Structural value or integrity of an element of the Project.
  - 4. Integrity or effectiveness of weather-exposed or moisture-resistant elements or systems.
  - 5. Efficiency, operational life, maintenance, or safety of operational elements.

6. Visual qualities of sight-exposed elements.
- B. Request shall include:
1. Identification of Project.
  2. Description of affected Work of CONTRACTOR and work of others.
  3. Necessity for cutting.
  4. Effect on work of OWNER or other contractors, or on structural or weatherproof integrity of Project.
  5. Description of proposed Work, describing:
    - a. Scope of cutting and patching.
    - b. Trades who will be executing the Work.
    - c. Products proposed to be used.
    - d. Extent of refinishing.
    - e. Schedule of operations.
  6. Alternatives to cutting and patching, if any.
  7. Designation of party responsible for cost of cutting and patching, when applicable.
  8. Written permission of other contractors whose work will be affected.
- C. Should conditions of Work, or schedule, indicate a change of materials or methods, submit written recommendation to ENGINEER, including:
1. Conditions indicating change.
  2. Recommendations for alternative materials or methods.
  3. Submittals as required for substitutions.
- D. Submit written notice to ENGINEER, designating time Work will be uncovered, to provide for observation. Do not begin cutting or patching operations until authorized by ENGINEER.
- E. Conform to applicable Specification sections for application and installation of materials used for patching.
- 1.4 WARRANTY
- A. Replace, patch, and repair materials and surfaces cut or damaged during cutting and patching operations, by methods and with materials in such a manner that does not void required or existing warranties.

## PART 2 - PRODUCTS

### 2.1 MATERIALS, GENERAL

- A. Use materials identical to existing materials. For exposed surfaces, use materials that visually match existing adjacent surfaces to fullest extent possible. If identical materials are unavailable or cannot be used, use materials whose installed performance will equal or surpass that of existing materials.

## PART 3 - EXECUTION

### 3.1 GENERAL

- A. Perform cutting and coring in such a manner as to limit the extent of patching.
- B. Core drill holes to be cut through concrete and masonry walls, slabs or arches, unless otherwise accepted by the ENGINEER in writing.

### 3.2 INSPECTION

- A. Examine surfaces to be cut and patched and conditions under which cutting and patching are to be performed before cutting.
- B. Report unsatisfactory or questionable conditions to ENGINEER, in writing. Do not proceed with the Work until the ENGINEER has provided further instructions.

### 3.3 PREPARATION

- A. Provide temporary support as required to maintain structural integrity of Project, to protect adjacent Work from damage during cutting and to support the Work to be cut.
- B. Protect existing construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of the Project that will be exposed during cutting and patching operations.
  - 1. Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.
  - 2. Do not cut existing pipe, conduit or ductwork serving facilities scheduled to be removed or relocated until provisions have been made to bypass them.

### 3.4 CORING

- A. Perform coring with a non-impact rotary tool using diamond core drills. Size holes for pipe, conduit, sleeves, equipment or mechanical seals, as required.
- B. Protect existing equipment, utilities and adjacent areas from water and other damage covered by drilling operations.

- C. Vacuum or otherwise remove slurry or tailings from the Work area following drilling.

### 3.5 CUTTING

- A. Cut existing construction using methods least likely to damage elements retained or adjoining construction, and that will provide proper surfaces to receive installation or repair.
  - 1. In general, use hand or small power tools designed for sawing or grinding, not hammering and chopping.
  - 2. Cut through concrete and masonry using a concrete wall saw with diamond saw blades.
    - a. Provide for control, on both sides of walls, of slurry generated by sawing.
- B. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Provide temporary covering over openings where not in use.
- C. To avoid marring existing finished surfaces, cut or drill from exposed or finished side into concealed side.
- D. Provide adequate bracing of area to be cut prior to start of cutting.
- E. Provide equipment of adequate size to remove cut panel.

### 3.6 PATCHING

- A. Patch construction by filling, repairing, refinishing, closing-up and similar operations following performance of other Work. Patch with durable seams that are as inconspicuous as possible. Provide materials and comply with installation requirements specified, in other Specification sections.
- B. Where feasible, test patched areas to demonstrate integrity of installation.
- C. Fit work airtight to pipes, sleeves, ducts, conduit and other penetrations through surfaces.
- D. Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.
  - 1. For continuous surfaces, refinish to nearest intersection.
  - 2. For an assembly, refinish entire unit.

- E. Patch, repair or rehang existing ceilings as necessary to provide an even-plane surface of uniform appearance.

### 3.7 CLEANING

- A. Clean areas and spaces where cutting, coring and patching are performed. Clean piping, conduit or similar constructions before applying paint or other finishing materials. Restore damaged pipe covering to original condition.

END OF SECTION 017230

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## SECTION 017240 - CONNECTIONS TO EXISTING FACILITIES

### PART 1 - GENERAL

#### 1.1 DESCRIPTION

##### A. Scope

1. This Section specifies requirements for connections to existing facilities. Requirements for tie-ins and shutdowns necessary to complete the Work are in Section 011430, Coordination with Owner's Operations.
2. CONTRACTOR shall provide labor, materials, tools, equipment and incidentals shown, specified, and required for connections to existing facilities.

##### B. Coordination

1. Review installation procedures under other Specification sections and coordinate work that must be performed with or before Work specified herein.

##### C. Related Sections

1. Section 011430, Coordination with Owner's Operations.
2. Section 017230, Cutting and Patching.

##### D. General

1. Requirements for cutting and patching are in Section 017230, Cutting and Patching.
2. To the extent possible, equipment, piping, and appurtenances that will be placed into service upon completion of connection to existing facilities shall be checked, successfully tested, and in condition for operation prior to making connections to existing facilities, if valves, gates, or similar watertight and gastight isolation devices are not provided at the connection point.

END OF SECTION 017240

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SECTION 017400 - CLEANING

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Execute cleaning, during progress of the Work, at completion of the Work, and as required by General Conditions.

1.2 REQUIREMENTS OF REGULATORY AGENCIES

- A. In addition to the requirements herein, maintain the cleanliness of the Work and surrounding premises within the Work limits so as to comply with federal, state, and local fire and safety laws, ordinances, codes and regulations.
- B. Comply with all federal, state and local anti-pollution laws, ordinances, codes and regulations when disposing of waste materials, debris and rubbish.

1.3 PROGRESS CLEANING

- A. General: Clean the Site, Work areas and other areas CONTRACTOR is permitted to occupy by Laws and Regulations at least weekly. Dispose of materials lawfully according to Laws and Regulations:
  - 1. Comply with requirements in NFPA 241, Standard for Safeguarding Construction, Alteration and Demolition Operations, for removal of combustible waste materials and debris.
  - 2. Do not hold other materials more than three days if the temperature is expected to rise above 80°F.
  - 3. Provide suitable containers for storage of waste materials and debris.
  - 4. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately.
- B. Project
  - 1. Maintain Project free of waste materials and debris.
  - 2. Keep exterior dust generating areas wetted down.
  - 3. Daily brush sweep all existing roadways affected by the Work.

- C. Work Areas: Clean areas where Work is in progress to the level of cleanliness necessary for proper execution of the Work.
  - 1. Remove liquid spills promptly and report spills to the OWNER and ENGINEER immediately.
  - 2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire Work area, as appropriate.
- D. Installed Work: Keep installed Work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.
- E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.
- F. Exposed Surfaces: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- G. Cutting and Patching: Clean areas and spaces where cutting and patching are performed. Completely remove paint, mortar, oils, putty, and similar materials.
  - 1. Thoroughly clean piping, conduit, and similar features before applying paint or other finishing materials. Restore damaged pipe covering to its original condition.
- H. Waste Disposal:
  - 1. Properly dispose of all waste materials, surplus materials, debris and rubbish off the Project Site.
  - 2. Do not burn or bury rubbish and waste materials on the Project Site.
  - 3. Do not dispose of volatile or hazardous wastes such as mineral spirits, oil, or paint thinner in storm or sanitary drains.
  - 4. Do not discharge wastes into streams or waterways.
  - 5. CONTRACTOR shall be solely responsible for complying with any federal, state, and local environmental and regulations in disposing of waste.
- I. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
- J. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.

#### 1.4 FINAL CLEANING

A. General: Provide final cleaning

1. Complete the following cleaning and waste-removal operations before requesting inspection for certification of Substantial Completion for entire Project or for a portion of Project:
  - a. Clean and remove from the Project rubbish, waste material, debris, and other foreign substances.
  - b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
  - c. Hose clean sidewalks and loading areas.
  - d. Leave watercourses, gutters, and ditches open and clean.
  - e. Repair pavement, roads, sod, and all other areas affected by construction operations and restore them to original condition or to minimum condition specified.
  - f. Maintain the cleaning until OWNER occupies the Project or portion thereof.
  - g. Leave Project clean and in a neat and orderly condition satisfactory to ENGINEER.

END OF SECTION 017400

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## SECTION 017820 - RECORD DOCUMENTS

### PART 1 - GENERAL

#### 1.1 DESCRIPTION

- A. CONTRACTOR shall maintain and provide the ENGINEER with Record Documents as specified below.
- B. Maintenance of Documents:
  - 1. Three sets of black line sets of plans, including Addenda, of the Drawings will be furnished to CONTRACTOR by the OWNER.
  - 2. Maintain in CONTRACTOR'S field office in clean, dry, legible condition complete sets of the following: Drawings, Specifications, Addenda, approved Shop Drawings, Samples, Photographs, Change Orders, other modifications of Contract Documents, test records, survey data, Field Orders, and all other documents pertinent to CONTRACTOR'S Work.
  - 3. Provide files and racks for proper storage and easy access. File in accordance with filing format of Construction Specification Institute (CSI), unless otherwise approved by ENGINEER.
  - 4. Make documents available at all times for inspection.
  - 5. Record Documents shall not be used for any other purpose and shall not be removed from CONTRACTOR'S office without ENGINEER'S approval.
- C. Marking System: Changes, revisions, additions and deletions, to the record set of Drawings shall be marked in Red.
- D. Recording:
  - 1. Label the Cover Sheet, Index and each supplemental sheets of each document "PROJECT RECORD" in 2-inch-high printed letters.
  - 2. Keep Record Documents current. CONTRACTOR'S refusal, failure or neglect to maintain current Record Documents shall constitute sufficient basis for the ENGINEER to recommend the withholding of some or all of any payment due.
  - 3. Do not permanently conceal any Work until required information has been recorded.
  - 4. Drawings: Legibly mark to record actual construction including:
    - a. Depths of various elements of foundation in relation to datum.
    - b. Horizontal and vertical location of underground utilities and appurtenances referenced to permanent surface improvements.
    - c. Location of internal utilities and appurtenances concealed in construction referenced to visible and accessible features of structure.
    - d. Field changes of dimensions and details.

- e. Changes made by Change Order or Field Order.
  - f. Details not on the original Drawings.
5. Specifications and Addenda: Legibly mark up each Section to record:
- a. Manufacturer, trade name, catalog number, and supplier of each product and item of equipment installed.
  - b. Changes made by Change Order or Field Order.
  - c. Other matters not originally specified.
- E. Record Drawings:
- 1. Record Drawings shall be prepared for all the Work included in this Contract. On a monthly basis, CONTRACTOR shall furnish to the ENGINEER a full-size annotated copy of the Record Drawings that include changes from the previous week's Record Drawing submittal. Annotations shall include redlined "clouds" of only those changes from the previous weeks' submittal. The redlined Drawings shall show the actual in-place installation of the items installed under this Contract. The redlined Drawings shall show the Work in plan and sections as required for clarity with reference dimensions and elevations for complete Record Drawings.
  - 2. In addition to the redlined Record Drawings, CONTRACTOR shall prepare and submit CADD files (latest version) for all supplemental drawings used to complete the Record Drawings.
- F. Submittals: Submit the following:
- 1. Acceptance of CONTRACTOR'S monthly application for payment shall be dependent on the ENGINEER'S acceptance and agreement that CONTRACTOR'S Record Documents submittals are complete, thorough and acceptable in showing all Work up through and including such work as CONTRACTOR is claiming for completion and payment on CONTRACTOR'S application for payment. Any items that do not appear on the Record Documents in complete and acceptable form shall not be paid for in CONTRACTOR'S monthly payment.
  - 2. Examination by the ENGINEER of CONTRACTOR'S Record Documents will be made on a weekly basis to determine completion for consideration of monthly pay application. CONTRACTOR shall, however, make available all Record Documents at all times to the ENGINEER for examination.
  - 3. Prior to Completion of the Work, deliver final Record Documents to ENGINEER. Substantial completion will not be made until satisfactory final Record Documents are received by ENGINEER.
  - 4. Accompany final submittals with transmittal letter containing:
    - a. Date.
    - b. Project title and number.
    - c. CONTRACTOR'S name and address.

- d. Title and number of each Record Document.
- e. Certification that each document as submitted is complete and accurate.
- f. Signature of CONTRACTOR, or their authorized representative.

END OF SECTION 017820

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