

NEW YORK STATE THRUWAY AUTHORITY  
DEPARTMENT OF ENGINEERING

ALBANY, NY  
MARCH 5, 2026

AMENDMENT NO. 1  
TO

CONTRACT TAS 26-18A  
D215090  
WEEDSPORT MAINTENANCE -  
CONSTRUCT MUNICIPAL SEWER CONNECTION  
ON I-90, MILEPOST 304.20  
IN THE SYRACUSE DIVISION  
OF THE NEW YORK STATE THRUWAY  
IN CAYUGA COUNTY

IN THE LETTING OF  
MARCH 11, 2026

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**NOTE:** This amendment shall be attached to and become a part of the Proposal for Contract **TAS 26-18A**.

**NOTICE**

For Electronic Bidders, the Project's amended EBSX file will automatically account for any necessary item changes (deletions, changes in quantities, or additions) that this Amendment may describe as being required regarding the project's estimated cost. Instructions to make physical changes to the Project Proposal's bid sheets are intended for "paper" Bidders who choose to submit bids via paper.

Questions and Answers for this project are available from the Authority's website, specifically at: [https://content3.thruway.ny.gov/netdata/contractors/documents/d215090\\_tas26-18a\\_questions-and-answers-03-05-2026.pdf](https://content3.thruway.ny.gov/netdata/contractors/documents/d215090_tas26-18a_questions-and-answers-03-05-2026.pdf). This document may be updated periodically without formal issuance of an Amendment. Prospective bidders are advised to revisit this link weekly and before proposals are due, for any possible additional questions and answers information.

**PROPOSAL**

1. The Letting Date for this project has been rescheduled to April 1, 2026. All Bidders are authorized to **CHANGE** the Contract Proposal cover to read: **LETTING OF APRIL 22, 2026**.
2. The Completion Date for this project has been rescheduled to **June 30, 2027**. **DELETE** Page 1 and **REPLACE** with the attached Page 1-A1 now showing the updated Completion Date.
3. **DELETE** page 3 and **REPLACE** with the attached revised page **3-A1**. The name and phone number of the Syracuse Division Point of Contact has been updated.

4. **ADD** the attached Proposal Information pages **9A-A1** through **9Z-A1** immediately following the information shown on page 9 (Additional Insured Parties). These 26 new pages provide the necessary Railroad (CSX Transportation and Amtrak) related Construction Requirements, Construction Submission Criteria, No Exceptions correspondence letter with supporting drainage related information, Special Provisions, and Insurance Requirements.
5. **ADD** the attached pages **15A-A1** through **15BH-A1**. The special specifications and requirements to be paid for under Item 627.0001 25, General Requirements and Item 627.0002 25, Existing Conditions are now available.
6. **DELETE** pages **91** through **109**. Any reference to Item 627.0031 25, EARTHWORK is being removed from the project. However, make note that the proposed work as described in Section 31 10 00 – Site Clearing and Section 31 20 00 – Earth Moving will be relocated, and these two sections are now to be included within the required specifications for Item 627.0001 25, General Requirements. The contents of former pages 93 through 109 are now shown as pages 15AG-A1 through 15AW-A1. Refer to Item 5. above.
7. **DELETE** Page **237** and **REPLACE** with the attached Page **237-A1**. The Completion Date has been updated to **June 30, 2027**.

#### **PLANS**

8. The *signed* title sheet was inadvertently not uploaded with the rest of the original plan set. Upon identifying this error, it was corrected before the end of the first week of advertising this project, and the update was made available from our website and Bid Express. For those prospective bidders who may have downloaded the original plan set without the signed title sheet, please redownload the entire plan set to acknowledge the officially signed and endorsement title sheet. Nothing other than the signatures has been updated.

The Bidder **MUST** complete Page **254** of the Proposal acknowledging receipt of this amendment. If the Bidder fails to complete the “Amendment Acknowledgement” sheet, his bid could be declared informal thereby delaying award of the contract.

**PLEASE BE GOVERNED ACCORDINGLY WHEN SUBMITTING BIDS.**

**Brent E. Howard, P.E.**  
**Chief Engineer**

NEW YORK STATE THRUWAY AUTHORITY  
 DEPARTMENT OF ENGINEERING  
 PROPOSAL ESTIMATE FOR  
 WEEDSPORT MAINTENANCE – CONSTRUCT  
 MUNICIPAL SEWER CONNECTION ON I-90  
 AT  
 MILEPOST 304.20  
 IN THE  
 SYRACUSE DIVISION  
 OF THE  
 NEW YORK STATE THRUWAY  
 IN  
 CAYUGA COUNTY

TYPE	LIMITS
Municipal Sewer Connection	Weedsport Section Maintenance Facility on I-90, Milepost 304.20 Plus Advance Signing

DEPOSIT REQUIRED           \$75,000.00          

COMPLETION DATE           June 30, 2027

### 3-A1

#### ALL BIDDERS

#### PRE-BID INSPECTION

The prospective bidder must have in its possession the Contract Plans/Proposal and a Work Permit for identification purposes when conducting a pre-bid inspection of the Thruway facility.

The prospective bidder shall inform the appropriate Division Point of Contact (listed below) prior to visiting the site and shall strictly comply with all instructions and requirements.

- **The New York State Thruway Authority Permit Application (TA-W5124)** and information on required insurance documentation is available at <https://www.thruway.ny.gov/business/forms-guidelines#occupancy-%26-work-permits>. The application along with insurance documentation shall be submitted to the appropriate Thruway Authority Division Permit Coordinator as indicated on page 2 of the application. The fee is waived for this Pre-Bid Inspection.

<u>Division</u>	<u>Point of Contact</u>	<u>Phone</u>
New York	Timothy Mathew	(845) 918-2510
Albany	Michael Beaudet	(518) 471-5940
Syracuse	Trevor Thieme	(315) 438-2384
Buffalo	Nicholas Przybylski	(716) 635-6253

Provisions of Section 107-05, Equipment Safety Procedures, contained in the Contract Proposal shall apply to all Pre-Bid Inspectors and shall be strictly adhered to while performing the pre-bid inspection.

#### PRECONSTRUCTION MEETING

A Pre-Construction Meeting will be held prior to the start of construction. The time, date and location will be coordinated by the Division Construction Engineer who will provide this information to the successful low bidder as soon as it is available.

#### WITHDRAWAL OF BID

A Contractor may at any time, upon at least fifteen (15) days written notice, withdraw its bid on a date sixty (60) days after bid opening or thirty (30) days after the properly executed contract documents have all been received by the Authority, whichever is later. The bid bond, bid deposit, and/or performance bond shall remain in effect until such period of written notice has expired provided the contract has not been approved by the Office of the State Comptroller in the interim.

The Contractor and the Authority may agree in writing to extend the date upon which the bid may be withdrawn if the contract has not been approved by the Office of the State Comptroller.

**CONSTRUCTION REQUIREMENTS**

When performing work on, over or adjacent to CSX Transportation (CSXT) right-of-way or operations, the Contractor must abide by the current CSXT Special Provisions and the following additional requirements.

1. All construction related correspondence will be directed to Colliers Engineering, acting as the Construction Monitoring Representative (CMR) on behalf of CSXT, with the following contact and address:

Joseph Awald  
Project Manager  
Colliers Engineering  
120 Madison St., Tower 2, Ste 500  
Syracuse, NY 13202  
(315) 422-5200

Upon receipt of notification, the CMR will direct the Contractor to the local CSXT construction contact for the project.

2. The Contractor shall submit, including, but not limited to, the following construction procedures and documents. The Contractor shall obtain written acceptance from CSXT or their representative before proceeding with construction.
  - a. Means and Methods – the Contractor shall develop a detailed submission indicating the progression of work with specific times when tasks will be performed during the project. This submission will include a walkthrough at which time CSXT personnel will be present. Work will not be permitted to commence until the Contractor has provided CSXT with a satisfactory plan that the project will be undertaken without scheduling, performance or safety related issues. Provide a listing of the anticipated equipment to be used, the location of all equipment to be used and insure a contingency plan of action is in place should a primary piece of equipment malfunction. All work in the vicinity of CSXT property that has the potential of affecting CSXT train operations must be submitted and approved by CSXT prior to work being performed. This submission will also include a detailed narrative discussing the coordination of project safety issues between the sponsor, Contractor, CSXT and the CMR. The narrative shall address project level coordination and day to day, specific work operations including equipment operations and temporary works.
  - b. Erection Plans – Submittals must include detailed plans and procedures for all erection activities. The submission shall indicate the location and capacity of any proposed cranes, the estimated lifting loads and the connection devices (i.e. slings, shackles, etc.). All lifting equipment and connection devices shall have capacity for 150% of the actual lifting load. The factor of safety provided by the manufacturer in the lifting capacity charts shall not be considered in the 150% requirement. A registered Professional Engineer in the State of New York must seal all erection plans, calculations and procedures.
  - c. Excavation and Shoring Procedures and Track Monitoring Procedures are required to be submitted to CSXT or the CMR in accordance with the CSXT Construction Submission Criteria. The CSXT Construction Submission Criteria should be referred to and complied with prior to the preparation of submissions, as it contains specific requirements that could impact the Contractor's material selection and methods or operations for work near the railroad. **Revisions to the procedures may not be field approved. Any deviation(s) from a previously accepted plan including will**

**require a formal submission of the procedure for review and acceptance prior to performing any work.** A Professional Engineer in the State of New York must sign and seal the plans.

- d. Sheeting and Shoring Plans – If excavation within the live load influence zone (a 1.5H to 1V slope line starting at 1.5 feet below top of rail and 12' from the centerline of track) is necessary, the contractor shall submit three (3) sets of detailed drawings and one (1) set of calculations in accordance with CSXT Design & Construction Standard Specifications. Shoring shall be designed to resist a vertical live load surcharge of 1,882 lbs. per square foot, in addition to active earth pressure. The surcharge shall be assumed to act on a continuous strip, 8'-6" wide. Lateral pressures due to surcharge shall be computed using the strip load formula shown in AREMA Manual for Railway Engineering, Chapter 8, Part 20. Allowable stresses in materials shall be in accordance with AREMA Manual for Railway Engineering, Chapter 7, 8, and 15. A Registered Professional Engineer in the State of New York must seal all sheeting and shoring plans.
- e. Ballast Protection – A ballast protection system may be required at the sole discretion of CSXT depending on the contractor's proposed methods to perform the work. The system shall use filter fabric and indicate the anchorage system. The ballast protection is to extend a minimum of 25' beyond the proposed limit of work or greater as determined by CSXT and be continuously maintained to prevent all contaminants from entering the ballast section of all tracks for the entire duration of the project.
- f. Construction Schedule – Submit a detailed construction schedule for the duration of the project clearly indicating the time periods while working on and around CSXT right-of-way. As the work progresses, this schedule shall be updated and resubmitted as necessary to reflect changes in work sequence, duration and method, etc.

Insurance – Submit all necessary insurance information in accordance with the current CSXT Insurance Requirements listed in "Attachment A" for approval. The complete insurance policies should be submitted by email to [insurancedocuments@csx.com](mailto:insurancedocuments@csx.com) with a copy sent to the CMR. The body of the email shall include the following information:

CSXT PUBLIC PROJECT: Salina, Onondaga County, New York; Replacement of I-90 over CSXT; MP QM-5.10, DOT# 513 070 H, Albany Division, St. Lawrence Subdivision, NYSTA# D214469, OP# NY0575

The Contractor shall provide their name and contact information in all correspondence.

The insurance policies will be required to be in place and approved prior to any work commencing on or that could potentially impact CSXT right-of-way.

- g. Emergency Action Plan – Submit an emergency action plan indicating the location of the site, contact numbers, access to the site, instructions for emergency response and location of nearest hospitals. This plan should cover all items required in the event of an emergency at the site including fire suppression. Coordinate the Emergency Action Plan with the safety related discussion of the Means and Methods submission discussed above. The plan should also include a method to provide this information to each project worker for each day on site.

3. Up to thirty (30) days will be required to review all construction submissions. Up to an additional thirty (30) days will be required to review any subsequent submissions returned not approved.
4. No storm water from the project may discharge onto the CSXT right-of-way at any time during construction.
5. The Contractor must ensure that proper erosion control is implemented on and adjacent to CSXT right-of-way during construction. The Contractor may be required to submit a detailed erosion control plan for review and acceptance by CSXT or the CMR prior to performing any work.
6. The Contractor must not use CSXT right-of-way for storage of materials or equipment during construction. The CSXT right-of-way must remain clear for railroad use at all times. Equipment may not be positioned to block the railroad access road, track area, or any part of the CSXT right-of-way without CSXT approval.
7. The Contractor will be required to abide by the provisions of the NYSTA Construction Agreement. Periodically, throughout the project duration, the Contractor will be required to meet, discuss and, if necessary, take immediate action at the discretion of CSXT personnel and/or the CMR to comply with provisions of that agreement and these specifications.
8. This project will require extensive use of CSXT Flagmen to protect train operations from project activity in the area of the tracks. While CSXT cannot guarantee the availability of flagmen at all requested times, every accommodation will be extended to the Contractor when forces are available. Flagging requests should be made to Michael Cooper, Bergmann Associates 518.862.0325 at least thirty (30) days in advance. Termination or cancellation of a flagman requires ten (10) days notice to avoid incurring costs.
9. All crane and equipment operations that could potentially impact CSXT right-of-way must be coordinated with the CSXT Flagman.
10. For sheeting/shoring within eighteen (18') feet of centerline of track, the live load influence zone, and in slopes, the contractor shall use sheet pile. No sheet pile in slopes or within eighteen (18') feet of centerline of track shall be removed. Sheet piles shall be cutoff three (3') feet below the ground line after backfilling to that point. The remaining three (3') shall be backfilled immediately after cutoff.
11. Contractor access will be limited to the immediate project area only. The CSXT right-of-way may not be used for contractor access to the project site and no temporary at-grade crossings will be allowed.
12. The Contractor or the Agency shall be responsible to have painted on the structure the DOT Number assigned to the grade separation. This number shall be affixed at a location on either side of the CSXT tracks or property and in a manner such that it can be readily discerned and visible from track level. The font size of the DOT numbers and letters should be at least four inches (4 ") tall and shall be black on a light-colored background or white on a dark-colored background of the grade separation component.

13. At project completion, submit a set of "As-Built" plans for the proposed bridge construction and any work performed on the CSXT right-of-way. Please forward the plans to:

Mr. Ed Sparks  
Assistant Chief Engineer Structures  
CSX Transportation  
500 Water Street, J350  
Jacksonville, FL 32202

# APPENDIX

## CSX Transportation

### CONSTRUCTION SUBMISSION CRITERIA

Public Projects Group  
Jacksonville, FL  
Date Issued: February 23, 2015

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### INTRODUCTION

The intent of this document is to guide outside agencies and their Contractors when performing work on, over, or with potential to impact CSXT property (ROW). Work plans shall be submitted for review to the designated CSXT Engineering Representative for all work which presents the potential to affect CSXT property or operations; this document shall serve as a guide in preparing these work plans. All work shall be performed in a manner that does not adversely impact CSXT operations or safety; as such, the requirements of this document shall be strictly adhered to, in addition to all other applicable standards associated with the construction. Applicable standards include, but are not limited to, CSXT Standards and Special Provisions, CSXT Insurance Requirements, CSXT Pipeline Occupancy Criteria, as well as the governing local, county, state and federal requirements. It shall be noted that this document and all other CSXT standards are subject to change without notice, and future revisions will be made available at the CSXT website: [www.csx.com](http://www.csx.com).

### I. DEFINITIONS

1. *Agency* – The project sponsor (i.e., State DOT, Local Agencies, Private Developer, etc.)
2. *AREMA* – American Railway Engineering and Maintenance-of-Way Association – the North American railroad industry standards group. The use of this term shall be in specific reference to the AREMA Manual for Railway Engineering.
3. *Construction Submission* – The Agency or its representative shall submit six (6) sets of plans, supporting calculations, and detailed means and methods procedures for the specific proposed activity. All plans, specifications, and supporting calculations shall be signed/sealed by a Professional Engineer as defined below.
4. *Controlled Demolition* – Removal of an existing structure or subcomponents in a manner that positively prevents any debris or material from falling, impacting, or otherwise affecting CSXT employees, equipment or property. Provisions shall be made to ensure that there is no impairment of railroad operations or CSXT’s ability to access its property at all times.
5. *Contractor* – The Agency’s representative retained to perform the project work.
6. *Engineer* – CSXT Engineering Representative or a GEC authorized to act on the behalf of CSXT.
7. *Flagman* – A qualified CSXT employee with the sole responsibility to direct or restrict movement of trains, at or through a specific location, to provide protection for workers.
8. *GEC* – General Engineering Consultant who has been authorized to act on the behalf of CSXT.
9. *Horizontal Clearance* – Distance measured perpendicularly from centerline of any track to the nearest obstruction at any elevation between TOR and the maximum vertical clearance of the track.
10. *Professional Engineer* – An engineer who is licensed in State or Commonwealth in which the project is to occur. All plans, specifications, and supporting calculations shall be prepared by the Licensed Professional Engineer and shall bear his/her seal and signature.
11. *Potential to Foul* – Work having the possibility of impacting CSXT property or operations; defined as one or more of the following:
  - a. Any activity where access onto CSXT property is required.
  - b. Any activity where work is being performed on CSXT ROW.
  - c. Any excavation work adjacent to CSXT tracks or facilities, within the Theoretical Railroad Live Load Influence Zone, or where the active earth pressure zone extends within the CSXT property limits.
  - d. The use of any equipment where, if tipped and laid flat in any direction (360 degrees) about its center pin, can encroach within twenty five feet (25’-0”) of the nearest track centerline. This is based upon the proposed location of

- the equipment during use, and may be a function of the equipment boom length. Note that hoisting equipment with the potential to foul must satisfy the 150% factor of safety requirement for lifting capacities.
- e. Any work where the scatter of debris, or other materials has the potential to encroach within twenty five feet (25'-0") of the nearest track centerline.
  - f. Any work where significant vibration forces may be induced upon the track structure or existing structures located under, over, or adjacent to the track structure.
  - g. Any other work which poses the potential to disrupt rail operations, threaten the safety of railroad employees, or otherwise negatively impact railroad property, as determined by CSXT.
12. *ROW – Right of Way*; Refers to CSXT Right-of-Way as well as all CSXT property and facilities. This includes all aerial space within the property limits, and any underground facilities.
  13. *Submission Review Period* - a minimum of thirty (30) days in advance of start of work. Up to thirty (30) days will be required for the initial review response. Up to an additional thirty (30) days may be required to review any/all subsequent submissions or resubmission.
  14. *Theoretical Railroad Live Load Influence Zone* – A 1½ horizontal to 1 vertical theoretical slope line starting 18 inches (1'-6") below top of tie elevation and twelve feet (12'-0") from the centerline of the nearest track.
  15. *TOR – Top of Rail*. This is the base point for clearance measurements. It refers to the crown (top) of the steel rail; the point where train wheels bear on the steel rails.
  16. *Track Structure* – All load bearing elements which support the train. This includes, but is not limited to, the rail, ties, appurtenances, ballast, sub-ballast, embankment, retaining walls, and bridge structures.
  17. *Vertical Clearance* – Distance measured from TOR to the lowest obstruction within six feet (6'-0") of the track centerline, in either direction.

## II. GENERAL SUBMISSION REQUIREMENTS

- A. A construction work plan is required to be submitted by the Agency or its Contractor, for review and acceptance, prior to accessing or performing any work with Potential to Foul.
- B. The Agency or its representative shall submit six (6) sets of plans, specifications, supporting calculations, and detailed means and methods procedures for the specific proposed work activity.
- C. Construction submissions shall include all information relevant to the work activity, and shall clearly and concisely explain the nature of the work, how it is being performed, and what measures are being taken to ensure that railroad property and operations are continuously maintained.
- D. All construction plans shall include a map of the work site, depicting the CSXT tracks, the CSXT right of way, proposed means of access, proposed locations for equipment and material staging (dimensioned from nearest track centerline), as well as all other relevant project information. An elevation drawing may also be necessary in order to depict clearances or other components of the work.
- E. Please note that CSXT will not provide pricing to individual contractors involved in bidding projects. Bidding contractors shall request information from the agency and not CSXT.
- F. The Contractor shall install a geotextile fabric ballast protection system to prevent construction or demolition debris and fines from fouling ballast. The geotextile ballast protection system shall be installed and maintained by the Contractor to the satisfaction of the Engineer.
- G. The Engineer shall be kept aware of the construction schedule. The Contractor shall provide timely communication to the Engineer when scheduling the work such that the Engineer may be present during the work. The Contractor's schedule shall not dictate the work plan review schedule, and flagging shall not be scheduled prior to receipt of an accepted work plan.

H. At any time during construction activities, the Engineer may require revisions to the previously approved procedures to address weather, site conditions or other circumstances that may create a potential hazard to rail operations or CSXT facilities. Such revisions may require immediate interruption or termination of ongoing activities until such time the issue is resolved to the Engineer's satisfaction. CSXT and its GEC shall not be responsible for any additional costs or time claims associated with such revisions.

I. Blasting will not be permitted to demolish a structure over or within CSXT's right-of-way. When blasting off of CSXT property but with Potential to Foul, vibration monitoring, track settlement surveying, and/or other protective measures may be required as determined by the Engineer.

J. Blasting is not permitted adjacent to CSXT right-of-way without written approval from the Chief Engineer, CSXT.

K. Mechanical and chemical means of rock removal must be explored before blasting is considered. If written permission for the use of explosives is granted, the Agency or Contractor must submit a work plan satisfying the following requirements:

1. Blasting shall be done with light charges under the direct supervision of a responsible officer or employee of the Agency or Contractor.
2. Electronic detonating fuses shall not be used because of the possibility of premature explosions resulting from operation of two-way train radios.
3. No blasting shall be done without the presence of an authorized representative of CSXT. Advance notice to the Engineer is required to arrange for the presence of an authorized CSXT representative and any flagging that CSXT may require.
4. Agency or Contractor must have at the project site adequate equipment, labor and materials, and allow sufficient time, to clean up debris resulting from the blasting and correct any misalignment of tracks or other damage to CSXT property resulting from the blasting. Any corrective measures required must be performed as directed by the Engineer at the Agency's or Contractor's expense without any delay to trains. If Agency's or Contractor's actions result in the delay of any trains including passenger trains, the Agency or Contractor shall bear the entire cost thereof.
5. The Agency or Contractor may not store explosives on CSXT property.
6. At any time during blasting activities, the Engineer may require revisions to the previously approved procedures to address weather, site conditions or other circumstances that may create a potential hazard to rail operations or CSXT facilities. Such revisions may require immediate interruption or termination of ongoing activities until such time the issue is resolved to the Engineer's satisfaction. CSXT and its GEC shall not be responsible for any additional costs or time claims associated with such revisions.

### III. HOISTING OPERATIONS

A. All proposed hoisting operations with Potential to Foul shall be submitted in accordance with the following:

1. A plan view drawing shall depict the work site, the CSXT track(s), the proposed location(s) of the lifting equipment, as well as the proposed locations for picking, any intermediate staging, and setting the load(s). All locations shall be dimensioned from centerline of the nearest track. Crane locations shall also be dimensioned from a stationary point at the work site for field confirmation.
2. Computations showing the anticipated weight of all picks. Computations shall be made based upon the field-verified plans of the existing structure. Pick weights shall account for the weight of concrete rubble or other materials attached to the component being removed; this includes the weight of subsequent rigging devices/components. Rigging components shall be sized for the subsequent pick weight.
3. All lifting equipment, rigging devices, and other load bearing elements shall have a rated (safe lifting) capacity that is greater than or equal to 150% of the load it is carrying, as a factor of safety. Supporting calculations shall be furnished to verify the minimum capacity requirement is maintained for the duration of the hoisting operation.

4. Dynamic hoisting operations are prohibited when carrying a load with the Potential to Foul. Cranes or other lifting equipment shall remain stationary during lifting. (i.e., no moving picks).
5. For lifting equipment, the manufacturer's capacity charts, including crane, counterweight, maximum boom angle, and boom nomenclature is to be submitted.
6. A schematic rigging diagram must be provided to clearly call out each rigging component from crane hook to the material being hoisted. Copies of catalog or information sheets shall be provided to verify rigging weights and capacities.
7. For built-up rigging devices, the contractor shall submit the following:
  - i. Details of the device, calling out material types, sizes, connections and other properties.
  - ii. Load test certification documents and/or design computations bearing the seal and signature of a Professional Engineer. Load test shall be performed in the configuration of its intended use as part of the subject demolition procedure.
  - iii. Copies of the latest inspection reports of the rigging device. The device shall be inspected within one (1) calendar year of the proposed date for use.
8. A detail shall be provided showing the crane outrigger setup, including dimensions from adjacent slopes or facilities. The detail shall indicate requirements for bearing surface preparation, including material requirements and compaction efforts. As a minimum, outriggers and/or tracks shall bear on mats, positioned on level material with adequate bearing capacity.
9. A complete written narrative that describes the sequence of events, indicating the order of lifts and any repositioning or re-hitching of the crane(s).

## IV. DEMOLITION PROCEDURE

- A. The Agency or its Contractor shall submit a detailed procedure for a controlled demolition of any structure on, over, or adjacent to the ROW. The controlled demolition procedure must be approved by the Engineer prior to beginning work on the project.
- B. Existing Condition of structure being demolished:
  1. The Contractor shall submit as-built plans for the structure(s) being demolished.
  2. If as-built plans are unavailable, the Contractor shall perform an investigation of the structure, including any foundations, substructures, etc. The field measurements are to be made under the supervision of the Professional Engineer submitting the demolition procedure. Findings shall be submitted as part of the demolition means and methods submittal for review by the Engineer.
  3. Any proposed method for temporary stabilization of the structure during the demolition shall be based on the existing plans or investigative findings, and submitted as part of the demolition means and methods for review by the Engineer.
- C. Demolition work plans shall include a schematic plan depicting the proposed locations of the following, at various stages of the demolition:
  1. All cranes and equipment, calling out the operating radii.
  2. All proposed access and staging locations with all dimensions referenced from the center line of the nearest track.
  3. Proposed locations for stockpiling material or locations for truck loading.
  4. The location, with relevant dimensions, of all tracks, other railroad facilities; wires, poles, adjacent structures, or buried utilities that could be affected, showing that the proposed lifts are clear of these obstructions.
  5. Note that no crane or equipment may be set on the CSXT rails or track structure and no material may be dropped on CSXT property.
- D. Demolition submittal shall also include the following information:
  1. All hoisting details, as dictated by Section III of this document.
  2. A time schedule for each of the various stages must be shown as well as a schedule for the entire lifting procedure. The proposed time frames for all critical subtasks (i.e., torch/saw cutting various portions of the superstructure or

substructure, dismantling splices, installing temporary bracing, etc.) shall be furnished so that the potential impact(s) to CSXT operations may be assessed and eliminated or minimized.

3. The names and experience of the key Contractor personnel involved in the operation shall be included in the Contractor's means and methods submission.
  4. Design and supporting calculations shall be prepared, signed, and sealed by the Professional Engineer for items including the temporary support of components or intermediate stages shall be submitted for review. A guardrail will be required to be installed in a track in the proximity of temporary bents or shoring towers, when located within twelve feet (12'-0") from the centerline of the track. The guardrail will be installed by CSXT forces, at the expense of the Agency or its contractor.
- E. Girders or girder systems shall be stable at all times during demolition. Temporary bracing shall be provided at the piers, abutments, or other locations to resist overturning and/or buckling of the member(s). The agency shall submit a design and details of the proposed temporary bracing system, for review by the Engineer. Lateral wind forces for the temporary conditions shall be considered in accordance with AREMA, Chapter 8, Section 28.6.2. The minimum lateral wind pressure shall be fifteen pounds per square foot (15 psf).
- F. Existing, obsolete, bridge piers shall be removed to a minimum of three feet (3'-0") below the finished grade, final ditch line invert, or as directed by the Engineer.
- G. A minimum quantity of twenty five (25) tons of CSXT approved granite track ballast may be required to be furnished and stockpiled on site by the Contractor, or as directed by the Engineer.
- H. The use of acetylene gas is prohibited for use on or over CSXT property. Torch cutting shall be performed utilizing other materials such as propane.
- I. CSXT's tracks, signals, structures, and other facilities shall be protected from damage during demolition of existing structure or replacement of deck slab.
- J. Demolition Debris Shield
1. On-track or ground-level debris shields (such as crane mats) are prohibited for use by CSXT.
  2. Demolition Debris Shield shall be installed prior to the demolition of the bridge deck or other relevant portions of the structure. The demolition debris shield shall be erected from the underside of the bridge over the track area to catch all falling debris. The debris shield shall not be the primary means of debris containment.
    - i. The demolition debris shield design and supporting calculations, all signed/sealed by a Professional Engineer, shall be submitted for review and acceptance.
    - ii. The demolition debris shield shall have a minimum design load of 50 pounds per square foot (50 psf) plus the weight of the equipment, debris, personnel, and all other loads.
    - iii. The Contractor shall verify the maximum particle size and quantity of the demolition debris generated during the procedure does not exceed the shield design loads. Shield design shall account for loads induced by particle impact; however the demolition procedure shall be such that impact forces are minimized. The debris shield shall not be the primary means of debris containment.
    - iv. The Contractor shall include installation/removal means and methods for the demolition debris shield as part of the proposed Controlled Demolition procedure submission.
    - v. The demolition debris shield shall provide twenty three feet (23'-0") minimum vertical clearance, or maintain the existing vertical clearance if the existing clearance is less than twenty three feet (23'-0").
    - vi. Horizontal clearance to the centerline of the track should not be reduced unless approved by the Engineer.
    - vii. The Contractor shall clean the demolition debris shield daily or more frequently as dictated either by the approved design parameters or as directed by the Engineer.
- K. Vertical Demolition Debris Shield
1. This type of shield may be required for substructure removals in close proximity to CSXT track and other facilities, as determined by the Engineer.
  2. The Agency or its Contractor shall submit detailed plans with detailed calculations, prepared, signed, and sealed by a Professional Engineer, of the protection shield.

## V. ERECTION PROCEDURE

- A. The Agency or its Contractor shall submit a detailed procedure for erection of a structure with Potential to Foul. The erection procedure must be approved by the Engineer prior to beginning work on the project.
- B. Erection work plans shall include a schematic plan depicting the following, at all stages of the construction:
1. All proposed locations of all cranes and equipment, calling out the operating radii.
  2. All proposed access and staging locations with all dimensions referenced from the center line of the nearest track.
  3. All proposed locations for stockpiling material or locations for truck loading.
  4. The location, with relevant dimensions, of all tracks, other railroad facilities; wires, poles, adjacent structures, or buried utilities that could be affected, showing that the proposed lifts are clear of these obstructions.
- C. No crane or equipment may be set on the CSXT rails or track structure and no material may be dropped on CSXT property.
- D. For erection of a structure over the tracks, the following information shall be submitted for review and acceptance by the Engineer, at least thirty (30) days prior to erection:
1. As-built beam seat elevations – field surveyed upon completion of pier/abutment construction.
  2. Current Top of Rail (TOR) elevations – field measured at the time of as-built elevation collection.
  3. Computations verifying the anticipated minimum vertical clearance in the final condition which accounts for all deflection and camber, based upon the current TOR and as-built beam seat elevations. The anticipated minimum vertical clearance shall be greater than or equal to that which is indicated by the approved plans. Vertical clearance (see definitions) is measured from TOR to the lowest point on the overhead structure at any point within six feet (6'-0") from centerline of the track. Calculations shall be signed and sealed by a Professional Engineer.
- E. Girders or girder systems shall be stable at all times during erection. No crane may unhook prior to stabilizing the beam or girder.
1. Lateral wind forces for the temporary conditions shall be considered in accordance with AREMA, Chapter 8, Section 28.6.2. The minimum lateral wind pressure shall be fifteen pounds per square foot (15 psf).
  2. Temporary bracing shall be provided at the piers, abutments, or other locations to resist overturning and/or buckling of the member(s). The agency shall submit a design and details of the proposed temporary bracing system, for review by the Engineer.
  3. Temporary bracing shall not be removed until sufficient lateral bracing or diaphragm members have been installed to establish a stable condition. Supporting calculations, furnished by the Professional Engineer, shall confirm the stable condition.
- F. Erection procedure submissions shall also include the following information:
1. All hoisting details, as dictated by Section III of this document.
  2. A time schedule for each of the various stages must be shown as well as a schedule for the entire lifting procedure. The proposed time frames for all critical subtasks (i.e., performing aerial splices, installing temporary bracing, installation of diaphragm members, etc.) shall be furnished so that the potential impact(s) to CSXT operations may be assessed and eliminated or minimized.
  3. The names and experience of the key Contractor personnel involved in the operation shall be included in the Contractor's means and methods submission.
  4. A guardrail will be required to be installed in a track in the proximity of temporary bents or shoring towers, when located within twelve feet (12'-0") from the centerline of the track. The guardrail will be installed by CSXT forces, at the expense of the Agency or its Contractor.
  5. Design and supporting calculations prepared by the Professional Engineer for items including the temporary support of components or intermediate stages shall be submitted for review.

## VI. TEMPORARY EXCAVATION AND SHORING

- A. The Agency or its Contractor shall submit a detailed design and procedure for the installation of a sheeting/shoring system adjacent to the tracks. Shoring protection shall be provided when excavating with Potential to Foul, or as otherwise determined by CSXT. Shoring shall be provided in accordance with the AREMA, except as noted below.
- B. Shoring may not be required if all of the following conditions are satisfied:
1. The excavation does not encroach within the Theoretical Live Load Influence Zone. Please refer to Figure 1.
  2. The track structure is situated on level ground, or in a cut section, and on stable soil.
  3. The excavation does not adversely impact the stability of a CSXT facility (i.e. signal bungalow, drainage facility,

undergrade bridge, building, etc), or the stability of any structure on, over, or adjacent to CSXT property with potential to foul.

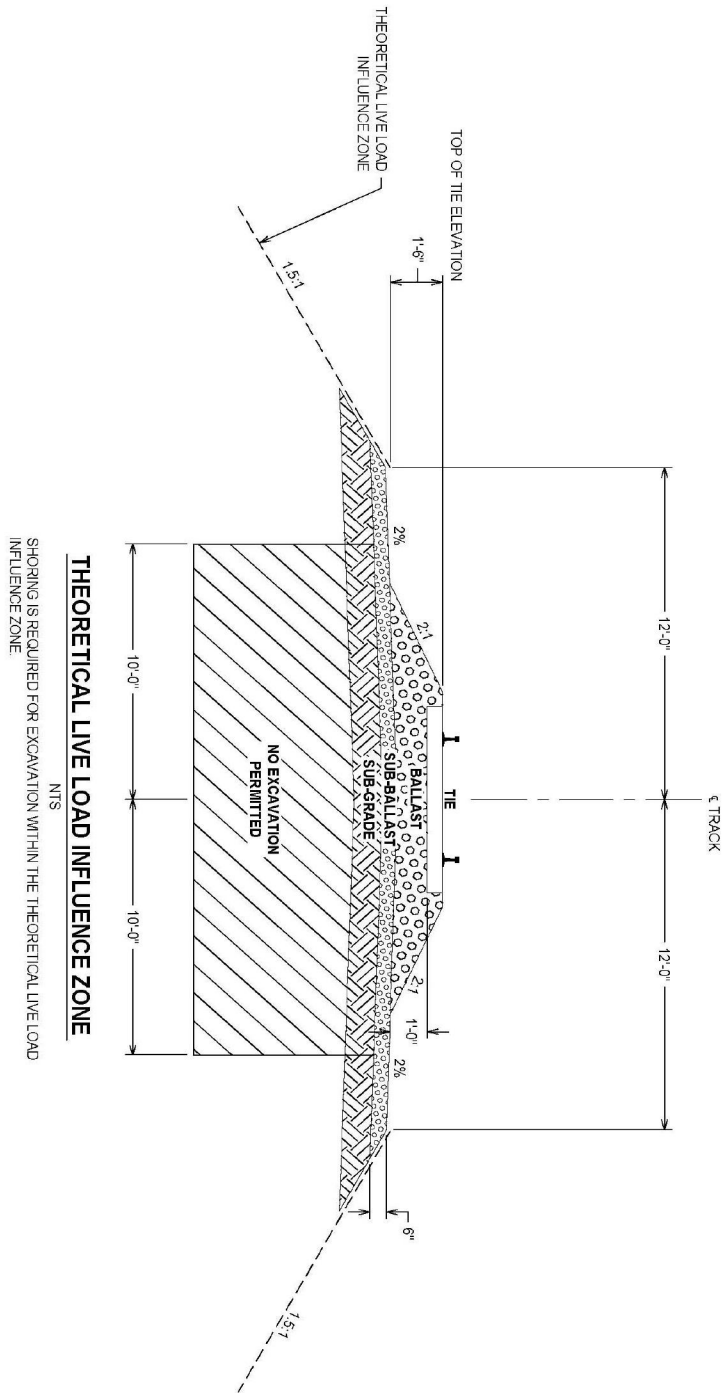
4. Shoring is not required by any governing federal, state, local or other construction code.

- C. Shoring is required when excavating the toe of an embankment. Excavation of any embankment which supports an active CSXT track structure without shoring will not be permitted.
- D. Trench boxes are not an acceptable means of shoring. Trench boxes are prohibited for use on CSXT property or within the Theoretical Railroad Live Load Influence Zone.
- E. Shoring shall be a cofferdam-type, which completely encloses the excavation. However, where justified by site or work conditions, partial cofferdams with open sides away from the track may be permissible, as determined by the Engineer.
- F. Cofferdams shall be constructed using interlocking steel sheet piles, or when approved by the Engineer, steel soldier piles with timber lagging. Wales and struts shall be included when dictated by the design.
- G. The use of tiebacks can be permissible for temporary shoring systems, when conditions warrant. Tiebacks shall have a minimum clear cover of 6'-0", measured from the bottom of the rail. Upon completion of the work, tiebacks shall be grouted, cut off, and remain in place.
- H. All shoring systems on, or adjacent to CSXT right-of-way, shall be equipped with railings or other fall protection, compliant with the governing federal, state or local requirements. Area around pits shall be graded to eliminate all potential tripping hazards.
- I. Interlocking steel sheet piles shall be used for shoring systems qualifying one or more of the following conditions:
  - 1. Within 18'-0" of the nearest track centerline
  - 2. Within the live load influence zone
  - 3. Within slopes supporting the track structure
  - 4. As otherwise deemed necessary by the Engineer.
- J. Sheet piles qualifying for one or more of the requirements listed in Section VI.I (above) of this document shall not be removed. Sheet piles shall be left in place and cut off a minimum of 3'-0" below the finished grade, the ditch line invert, or as otherwise directed by the Engineer. The ground shall be backfilled and compacted immediately after sheet pile is cut off.
- K. The following design considerations shall be considered when preparing the shoring design package:
  - 1. Shoring shall be designed to resist a vertical live load surcharge of 1,880 lbs. per square foot, in addition to active earth pressure. The surcharge shall be assumed to act on a continuous strip, eight feet six inches (8'-6") wide. Lateral pressures due to surcharge shall be computed using the strip load formula shown in *AREMA Manual for Railway Engineering*, Chapter 8, Part 20.
  - 2. Allowable stresses in materials shall be in accordance with AREMA Chapter 7, 8, and 15.3.
  - 3. A minimum horizontal clearance of ten feet (10'-0") from centerline of the track to face of nearest point of shoring shall be maintained, provided a twelve feet (12'-0") roadbed is maintained with a temporary walkway and handrail system.
  - 4. For temporary shoring systems with Potential to Foul, piles shall be plumb under full dead load. Maximum deflection at the top of wall, under full live load, shall be as follows:
    - i. One-half (1/2) inch for walls within twelve feet (12'-0") of track centerline (Measured from centerline of the nearest track to the nearest point of the supporting structure).
    - ii. One (1) inch for walls located greater than twelve feet (12'-0") from track centerline
- L. Shoring work plans shall be submitted in accordance with Section II of this document, as well as the following additional requirements:
  - 1. The work plan shall include detailed drawings of the shoring systems calling out the sizes of all structural members, details of all connections. Both plan and elevation drawings shall be provided, calling out dimensions from the face of shoring relative to the nearest track centerline. The elevation drawing shall also show the height of shoring, and track elevation in relation to bottom of excavation.
  - 2. Full design calculations for the shoring system shall be furnished.
  - 3. A procedure for cutting off the sheet pile, backfilling and restoring the embankment.

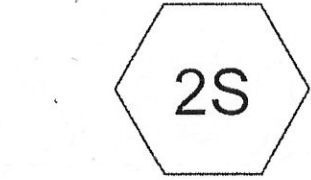
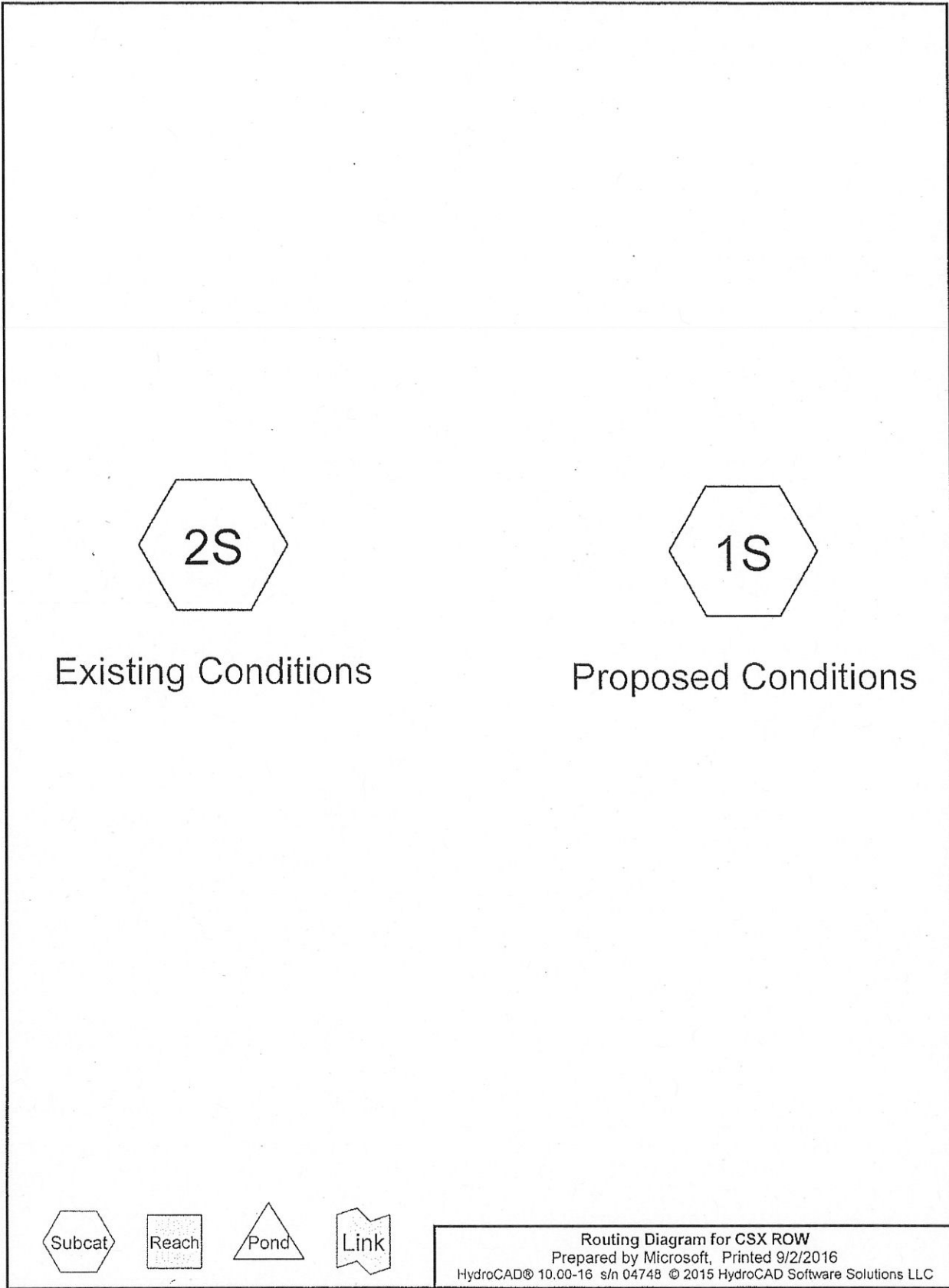
**VII. TRACK MONITORING**

- A. When work being performed has the potential to disrupt the track structure, a work plan must be submitted detailing a track monitoring program which will serve to monitor and detect both horizontal and vertical movement of the CSXT track and roadbed.
- B. The program shall specify the survey locations, the distance between the location points, and frequency of monitoring before, during, and after construction. CSXT reserves to the right to modify the survey locations and monitoring frequency as necessary during the project.
- C. The survey data shall be collected in accordance with the approved frequency and immediately furnished to the Engineer for analysis.
- D. If any movement has occurred as determined by the Engineer, CSXT will be immediately notified. CSXT, at its sole discretion, shall have the right to immediately require all contractor operations to be ceased, have the excavated area immediately backfilled and/or determine what corrective action is required. Any corrective action required by CSXT or performed by CSXT including the monitoring of corrective action of the contractor will be at project expense.

FIGURE 1: Theoretical Live Load Influence Zone



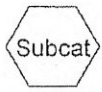
- NOTES:**
1. THEORETICAL LIVE LOAD INFLUENCE ZONE IS A 1 1/2 HORIZONTAL TO 1 VERTICAL THEORETICAL SLOPE STARTING 1'-6" BELOW TOP OF THE ELEVATION AND 12'-0" FROM THE CENTERLINE OF THE NEAREST TRACK
  2. REFER TO CONSTRUCTION SUBMISSION CRITERIA FOR ADDITIONAL REQUIREMENTS
  3. SHORING SHALL BE DESIGNED TO RESIST A VERTICAL LIVE LOAD SURCHARGE OF 1,880 LBS. PER SQUARE FOOT. IN ADDITION TO ACTIVE EARTH PRESSURE THE SURCHARGE SHALL BE ASSUMED TO ACT ON A CONTINUOUS STRIP, 8'-6" WIDE. LATERAL PRESSURES DUE TO SURCHARGE SHALL BE COMPUTED USING THE STRIP LOAD FORMULA SHOWN IN AREMA MANUAL FOR RAILWAY ENGINEERING, CHAPTER 8, PART 2D.



Existing Conditions



Proposed Conditions



Routing Diagram for CSX ROW  
Prepared by Microsoft, Printed 9/2/2016  
HydroCAD® 10.00-16 s/n 04748 © 2015 HydroCAD Software Solutions LLC



**CSX ROW**

Prepared by Microsoft  
 HydroCAD® 10.00-16 s/n 04748 © 2015 HydroCAD Software Solutions LLC

CSX ROW 100-year storm  
 Type II 24-hr 100-Year Rainfall=5.66"  
 Printed 9/2/2016  
 Page 3

**Summary for Subcatchment 1S: Proposed Conditions**

[49] Hint:  $T_c < 2dt$  may require smaller dt

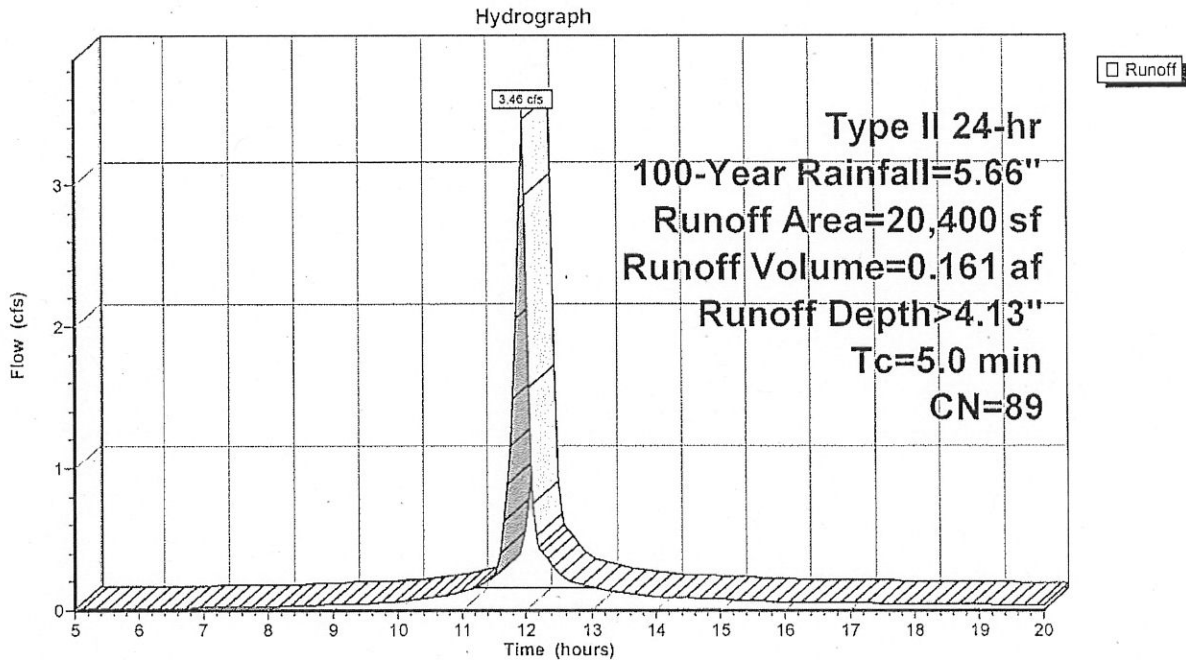
Runoff = 3.46 cfs @ 11.95 hrs, Volume= 0.161 af, Depth > 4.13"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Type II 24-hr 100-Year Rainfall=5.66"

Area (sf)	CN	Description
16,700	98	Paved parking, HSG A
3,700	49	50-75% Grass cover, Fair, HSG A
20,400	89	Weighted Average
3,700		18.14% Pervious Area
16,700		81.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

**Subcatchment 1S: Proposed Conditions**



**CSX ROW**

Prepared by Microsoft  
HydroCAD® 10.00-16 s/n 04748 © 2015 HydroCAD Software Solutions LLC

CSX ROW 100-year storm  
Type II 24-hr 100-Year Rainfall=5.66"

Printed 9/2/2016  
Page 4

**Summary for Subcatchment 2S: Existing Conditions**

[49] Hint:  $T_c < 2dt$  may require smaller  $dt$

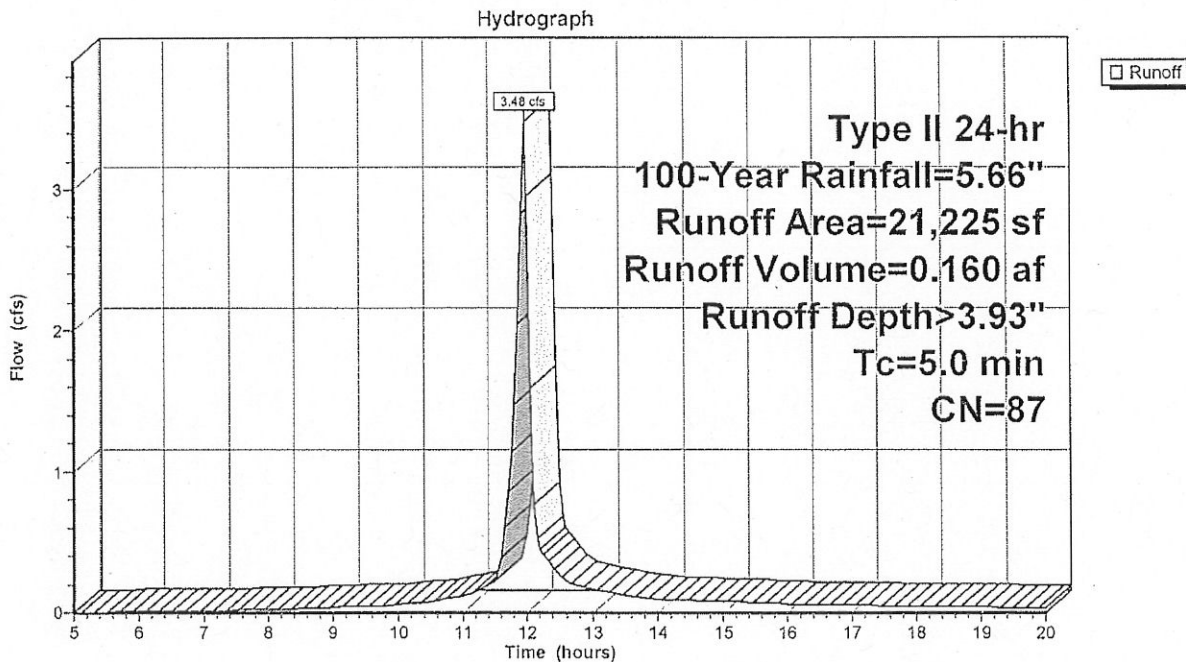
Runoff = 3.48 cfs @ 11.95 hrs, Volume= 0.160 af, Depth> 3.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs,  $dt=0.05$  hrs  
Type II 24-hr 100-Year Rainfall=5.66"

Area (sf)	CN	Description
16,550	98	Paved parking, HSG A
4,675	49	50-75% Grass cover, Fair, HSG A
21,225	87	Weighted Average
4,675		22.03% Pervious Area
16,550		77.97% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

**Subcatchment 2S: Existing Conditions**



# APPENDIX

## CSX Transportation

### CSXT SPECIAL PROVISIONS

Public Projects Group  
Jacksonville, FL  
Date Issued: May 9, 2011

CSXT SPECIAL PROVISIONS

**AUTHORITY OF CSXT ENGINEER**

The CSXT Representative shall have final authority in all matters affecting the safe maintenance of CSXT operations and CSXT property, and his or her approval shall be obtained by the Agency or its Contractor for methods of construction to avoid interference with CSXT operations and CSXT property and all other matters contemplated by the Agreement and these Special Provisions.

**II. INTERFERENCE WITH CSXT OPERATIONS**

A. Agency or its Contractor shall arrange and conduct its work so that there will be no interference with CSXT operations, including train, signal, telephone and telegraphic services, or damage to CSXT's property, or to poles, wires, and other facilities of tenants on CSXT's Property or right-of-way. Agency or its Contractor shall store materials so as to prevent trespassers from causing damage to trains, or CSXT Property. Whenever Work is likely to affect the operations or safety of trains, the method of doing such Work shall first be submitted to the CSXT Representative for approval, but such approval shall not relieve Agency or its Contractor from liability in connection with such Work.

B. If conditions arising from or in connection with the Project require that immediate and unusual provisions be made to protect train operation or CSXT's property, Agency or its Contractor shall make such provision. If the CSXT Representative determines that such provision is insufficient, CSXT may, at the expense of Agency or its Contractor, require or provide such provision as may be deemed necessary, or cause the Work to cease immediately.

**III. NOTICE OF STARTING WORK.** Agency or its Contractor shall not commence any work on CSXT Property or rights of-way until it has complied with the following conditions:

A. Notify CSXT in writing of the date that it intends to commence Work on the Project. Such notice must be received by CSXT at least ten business days in advance of the date Agency or its Contractor proposes to begin Work on CSXT property. The notice must refer to this Agreement by date. If flagging service is required, such notice shall be submitted at least thirty (30) business days in advance of the date scheduled to commence the Work.

B. Obtain authorization from the CSXT Representative to begin Work on CSXT property, such authorization to include an outline of specific conditions with which it must comply.

C. Obtain from CSXT the names, addresses and telephone numbers of CSXT's personnel who must receive notice under provisions in the Agreement. Where more than one individual is designated, the area of responsibility of each shall be specified.

**IV. WORK FOR THE BENEFIT OF THE CONTRACTOR**

A. No temporary or permanent changes to wire lines or other facilities (other than third party fiber optic cable transmission systems) on CSXT property that are considered necessary to the Work are anticipated or shown on the Plans. If any such changes are, or become, necessary in the opinion of CSXT or Agency, such changes will be covered by appropriate revisions to the Plans and by preparation of a force account estimate. Such force account estimate may be initiated by either CSXT or Agency, but must be approved by both CSXT and Agency. Agency or Contractor shall be responsible for arranging for the relocation of the third party fiber optic cable transmission systems, at no cost or expense to CSXT.

B. Should Agency or Contractor desire any changes in addition to the above, then it shall make separate arrangements with CSXT for such changes to be accomplished at the Agency or Contractor's expense.

**V. HAUL ACROSS RAILROAD**

A. If Agency or Contractor desires access across CSXT property or tracks at other than an existing and open public road crossing in or incident to construction of the Project, the Agency or Contractor must first obtain the permission of CSXT and shall execute a license agreement or right of entry satisfactory to CSXT, wherein Agency or Contractor agrees to bear all costs and liabilities related to such access.

B. Agency and Contractor shall not cross CSXT's property and tracks with vehicles or equipment of any kind or character, except at such crossing or crossings as may be permitted pursuant to this section.

**VI. COOPERATION AND DELAYS**

A. Agency or Contractor shall arrange a schedule with CSXT for accomplishing stage construction involving work by CSXT. In arranging its schedule, Agency or Contractor shall ascertain, from CSXT, the lead time required for assembling crews and materials and shall make due allowance therefor

B. Agency or Contractor may not charge any costs or submit any claims against CSXT for hindrance or delay caused by railroad traffic; work done by CSXT or other delay incident to or necessary for safe maintenance of railroad traffic; or for any delays due to compliance with these Special Provisions.

C. Agency and Contractor shall cooperate with others participating in the construction of the Project to the end that all work may be carried on to the best advantage.

D. Agency and Contractor understand and agree that CSXT does not assume any responsibility for work performed by others in connection the Project. Agency and Contractor further understand and agree that they shall have no claim whatsoever against CSXT for any inconvenience, delay or additional cost incurred by Agency or Contractor on account of operations by others.

**VII. STORAGE OF MATERIALS AND EQUIPMENT**

Agency and Contractor shall not store their materials or equipment on CSXT's property or where they may potentially interfere with CSXT's operations, unless Agency or Contractor has received CSXT Representative's prior written permission. Agency and Contractor understand and agree that CSXT will not be liable for any damage to such materials and equipment from any cause and that CSXT may move, or require Agency or Contractor to move, such material and equipment at Agency's or Contractor's sole expense. To minimize the possibility of damage to the railroad tracks resulting from the unauthorized use of equipment, all grading or other construction equipment that is left parked near the tracks unattended by watchmen shall be immobilized to the extent feasible so that it cannot be moved by unauthorized persons.

**VIII. CONSTRUCTION PROCEDURES**

A. General

1. Construction work on CSXT property shall be subject to CSXT's inspection and approval.
2. Construction work on CSXT property shall be in accord with CSXT's written outline of specific conditions and with these Special Provisions.
3. Contractor shall observe the terms and rules of the CSXT Safe Way manual, which Agency and Contractor shall be required to obtain from CSXT, and in accord with any other instructions furnished by CSXT or CSXT's Representative.

B. Blasting

1. Agency or Contractor shall obtain CSXT Representative's and Agency Representative's prior written approval for use of explosives on or adjacent to CSXT property. If permission for use of explosives is granted, Agency or Contractor must comply with the following:
  - a. Blasting shall be done with light charges under the direct supervision of a responsible officer or employee of Agency or Contractor.
  - b. Electric detonating fuses shall not be used because of the possibility of premature explosions resulting from operation of two-way train radios.
  - c. No blasting shall be done without the presence of an authorized representative of CSXT. At least 30 days' advance notice to CSXT Representative is required to arrange for the presence of an authorized CSXT representative and any flagging that CSXT may require.

d. Agency or Contractor must have at the Project site adequate equipment, labor and materials, and allow sufficient time, to (i) clean up (at Agency's expense) debris resulting from the blasting without any delay to trains; and (ii) correct (at Agency's expense) any track misalignment or other damage to CSXT's property resulting from the blasting, as directed by CSXT Representative, without delay to trains. If Agency's or Contractor's actions result in delay of any trains, including Amtrak passenger trains, Agency shall bear the entire cost thereof.

e. Agency and Contractor shall not store explosives on CSXT property.

2. CSXT Representative will:

a. Determine the approximate location of trains and advise Agency or Contractor of the approximate amount of time available for the blasting operation and clean-up.

b. Have the authority to order discontinuance of blasting if, in his or her opinion, blasting is too hazardous or is not in accord with these Special Provisions.

**IX. MAINTENANCE OF DITCHES ADJACENT TO CSXT TRACKS**

Agency or Contractor shall maintain all ditches and drainage structures free of silt or other obstructions that may result from their operations. Agency or Contractor shall provide erosion control measures during construction and use methods that accord with applicable state standard specifications for road and bridge construction, including either (1) silt fence; (2) hay or straw barrier; (3) berm or temporary ditches; (4) sediment basin; (5) aggregate checks; and (6) channel lining. All such maintenance and repair of damages due to Agency's or Contractor's operations shall be performed at Agency's expense.

**X. FLAGGING / INSPECTION SERVICE**

A. CSXT has sole authority to determine the need for flagging required to protect its operations and property. In general, flagging protection will be required whenever Agency or Contractor or their equipment are, or are likely to be, working within fifty (50) feet of live track or other track clearances specified by CSXT, or over tracks.

B. Agency shall reimburse CSXT directly for all costs of flagging that is required on account of construction within CSXT property shown in the Plans, or that is covered by an approved plan revision, supplemental agreement or change order.

C. Agency or Contractor shall give a minimum of 30 days' advance notice to CSXT Representative for anticipated need for flagging service. No work shall be undertaken until the flag person(s) is/are at the job site. If it is necessary for CSXT to advertise a flagging job for bid, it may take up to 90-days to obtain this service, and CSXT shall not be liable for the cost of delays attributable to obtaining such service.

D. CSXT shall have the right to assign an individual to the site of the Project to perform inspection service whenever, in the opinion of CSXT Representative, such inspection may be necessary. Agency shall reimburse CSXT for the costs incurred by CSXT for such inspection service. Inspection service shall not relieve Agency or Contractor from liability for its Work.

E. CSXT shall render invoices for, and Agency shall pay for, the actual pay rate of the flagpersons and inspectors used, plus standard additives, whether that amount is above or below the rate provided in the Estimate. If the rate of pay that is to be used for inspector or flagging service is changed before the work is started or during the progress of the work, whether by law or agreement between CSXT and its employees, or if the tax rates on labor are changed, bills will be rendered by CSXT and paid by Agency using the new rates. Agency and Contractor shall perform their operations that require flagging protection or inspection service in such a manner and sequence that the cost of such will be as economical as possible.

**XI. UTILITY FACILITIES ON CSXT PROPERTY**

Agency shall arrange, upon approval from CSXT, to have any utility facilities on or over CSXT Property changed as may be necessary to provide clearances for the proposed trackage.

**XII. CLEAN-UP**

Agency or Contractor, upon completion of the Project, shall remove from CSXT's Property any temporary grade crossings, any temporary erosion control measures used to control drainage, all machinery, equipment, surplus materials, falsework, rubbish, or temporary buildings belonging to Agency or Contractor. Agency or Contractor, upon completion of the Project, shall leave CSXT Property in neat condition, satisfactory to CSXT Representative.

**XIII. FAILURE TO COMPLY**

If Agency or Contractor violate or fail to comply with any of the requirements of these Special Provisions, (a) CSXT may require Agency and/or Contractor to vacate CSXT Property; and (b) CSXT may withhold monies due Agency and/or Contractor; (c) CSXT may require Agency to withhold monies due Contractor; and (d) CSXT may cure such failure and the Agency shall reimburse CSXT for the cost of curing such failure.

ATTACHMENT "A"  
INSURANCE REQUIREMENTS

**Evidence required by CSX Transportation, Inc.**

You are required to furnish Insurance to protect CSX Transportation, Inc. in connection with activities to be performed on or adjacent to CSX Transportation's Right of Way.

The following summarize CSXT's specifications for proper evidence of insurance:

1. Commercial General Liability coverage at their sole cost and expense with limits of not less than \$5,000,000 in combined single limits for bodily injury and/or property damage per occurrence, and such policies shall name CSXT as an additional insured.
2. Statutory Worker's Compensation and Employers Liability Insurance with limits of not less than \$1,000,000, which insurance must contain a waiver of subrogation against CSXT and its affiliates [if permitted by state law].
3. Commercial automobile liability insurance with limits of not less than \$1,000,000 combined single limit for bodily injury and/or property damage per occurrence, and such policies shall name CSXT as an additional insured.
4. Railroad protective liability insurance with limits of not less than \$5,000,000 combined single limit for bodily injury and/or property damage per occurrence and an aggregate annual limit of \$10,000,000, which insurance shall satisfy the following additional requirements:

a. The Railroad Protective Liability Insurance Policy must be on the ISO/RIMA Form of Railroad Protective Insurance - Insurance Services Office (ISO) Form CG 00 35.

b. CSX Transportation must be the named insured on the Railroad Protective Liability Insurance Policy. The address should be listed as:

CSX Transportation, Inc.  
500 Water Street - C907  
Jacksonville, FL 32202

c. Name and Address of Licensee must be shown on the Declarations page.

d. A description of operations and location must appear on the Declarations page and must match the Project description.

e. Authorized endorsements must include the Pollution Exclusion Amendment - CG 28 31, unless using form CG 00 35 version 96 and later.

f. Authorized endorsements may include:

- (i) Broad Form Nuclear Exclusion - IL 00 21
- (ii) 30-day Advance Notice of Non-renewal or cancellation
- (iii) Required State Cancellation Endorsement
- (iv) Quick Reference or Index - CL/IL 240

g. Authorized endorsements may not include:

- (i) A Pollution Exclusion Endorsement except CG 28 31
- (ii) A Punitive or Exemplary Damages Exclusion
- (iii) A "Common Policy Conditions" Endorsement
- (iv) Any endorsement that is not named in Section 4 (e) or (f) above.
- (v) Policies that contain any type of deductible

5. All insurance companies must be A. M. Best rated A- and Class VII or better.

6. Such additional or different insurance as CSXT may require.

**II. Additional Terms**

1. Licensee must submit the original Railroad Protective Liability policy, Certificates of Insurance and all notices and correspondence regarding the insurance policies to:

insurancedocuments@csx.com

2. Licensee may not begin work on the Project until it has received CSXT's written approval of the required insurance.

## Permitting: Utility, Wireless Infrastructure Installations and Rights of Entry

Permit information can found at the following link:

<https://www.csx.com/index.cfm/customers/value-added-services/property-real-estate/permitting-utility-wireless-infrastructure-installations-and-rights-of-entry/>

Accessing CSX property for any purpose requires permission. Any construction requires plan review, flagging and/or inspection, scheduling, and a signed Agreement from CSX. Safety is our overarching concern.



- [CSX Property Portal tutorial](#) (PDF)

**Utility Permits:** Utilities that go over, across, or under the railroad tracks or CSX property. See separate section below for longitudinal occupancies (i.e. utilities paralleling tracks).

- Wirelines – Electrical, Fiber, Cable, etc.
- Pipelines – Water, Sewer, Gas, culverts, etc.
- Small cell construction (complete the new Utility Application)

**Rights of Entry Permits:** Right of Entry access for temporary purposes ONLY.

- Surveying, Ingress/Egress, Inspection of bridges, roads, soil borings or sampling, wide load on operating track and/or property, and property remediation.
- Environmental investigation, monitoring wells, soil testing, etc.

**Wireless Infrastructure Permits:** The construction of new or co-location of wireless equipment on CSX property.

- New tower construction
- Co-location on existing CSX structures or third party structures
- Modifications to existing towers

**Longitudinal Occupancy Permits:** The construction of new utilities that run alongside (i.e. parallel) the railroad tracks and/or CSX property.

- Wirelines – Electrical, Fiber, Cable, etc.
- Pipelines – Water, Sewer, Gas, Culverts, etc.

**ITEM 627.0001 25****GENERAL REQUIREMENTS****1. DESCRIPTION:**

- 1.01 Furnish all labor, materials, equipment, and services necessary to complete the work as indicated on the Contract Plans and the attached Specification Summary.
- 1.02 All work shall conform to the requirements specified in Part 1 – General, of the Sections listed.

**2. MATERIALS:**

- 2.01 The materials shall be as specified in Part 2 – Products, of the Sections listed.

**3. CONSTRUCTION DETAILS:**

- 3.01 The construction details shall be as specified on Part 3 – Execution, of the Sections listed.

**4. METHOD OF MEASUREMENT:**

- 4.01 This item shall be measured for payment on a lump sum basis for the work completed in accordance with the Contract Documents and as directed by the Engineer.

**5. BASIS OF PAYMENT:**

- 5.01 Payment for this item shall be made at the lump sum bid price bid. The lump sum price bid shall include cost of furnishing all labor, material, equipment and appliances necessary to complete the work as indicated on the Contract Plans and as specified herein in the Sections listed.
- 5.02 Detailed Estimate:
  - A. Before the first certificate of payment is issued for the work under this item, submit a detailed estimate of quantities and prices for all materials, labor, and other items included under this item, which shall aggregate the contract lump sum price bid for this item. Prepare the detailed estimate in the same sequence as the Sections listed.
  - B. The detailed estimate shall be supported by such evidence, including certified copies of subcontracts, as the Engineer may require.
  - C. The detailed estimate must be approved by the Engineer who may revise it as, in his/her reasonable judgment, is necessary to make the various items conform to their true values. The value of each certificate of payment will be based on the approved detailed estimate.
- 5.03 Monthly payments will be made for this item in proportion to the total amount of work completed.

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**GENERAL REQUIREMENTS**

**1. SPECIFICATION SUMMARY**

1.01 This Item includes the following specifications:

- A. Section 013300 SUBMITTAL PROCEDURES
- B. Section 015000 TEMPORARY FACILITIES AND CONTROLS
- C. Section 017700 CLOSEOUT PROCEDURES
- D. Section 311000 SITE CLEARING
- E. Section 312000 EARTH MOVING

1.02 This item shall include, but not be limited to, the following:

- A. Any procurement and contracting requirements related to the bidding and subsequent execution of said contract.
- B. Any items related to the earthwork such as Sections 311000 – Site Clearing, and Section 312000, Earth Moving.

1.03 Items specifically not paid for under this item shall include, but not be limited to, the following:

- A. Not Used

## SECTION 01 33 00

### SUBMITTAL PROCEDURES

#### PART 1 - GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Submittal procedures.
  - 2. Review of submittals.
  - 3. Schedule of Submittals.
  - 4. Shop Drawings.
  - 5. Samples.
  - 6. Manufacturer's instructions.
  
- B. Related Requirements:
  - 1. Section 01 77 00 – Closeout Procedures for submitting closeout submittals and maintenance material submittals.

##### 1.2 DEFINITIONS

- A. Action Submittals: Written and graphic information and physical samples that require Engineer's and Construction Manager's responsive action. Action submittals are those submittals indicated in individual Specification Sections as "action submittals."
  
- B. Informational Submittals: Written and graphic information and physical samples that do not require Engineer's and Construction Manager's responsive action. Submittals may be rejected for not complying with requirements. Informational submittals are those submittals indicated in individual Specification Sections as "informational submittals."

##### 1.3 SUBMITTAL PROCEDURES

- A. Transmit each required submittal using Owner furnished form.
  
- B. Number the submittals as follows:
  - 1. First: Specification section number.
  - 2. Submittal number within the Specification section.

- 3. Review cycle number.
- 4. Title of submittal.
- 5. For example:
  - a. 02510-01-01 – Field lock gaskets for DIP (first review cycle)
  - b. 02510-01-02 - Field lock gaskets for DIP (second review cycle)
  - c. 02510-02-01 – Flange pipe and fittings (first review cycle)
  - d. 02510-02-02 – Flange pipe and fittings (second review cycle)
  - e. 02510-02-03 – Flange pipe and fittings (third review cycle)
- C. Identify Project, Contractor, Subcontractor, and Supplier; pertinent Drawing number and detail number(s), and Specification sections, as appropriate.
- D. Apply stamp, signed or initialed providing certification that includes, at a minimum:
  - 1. Submittal Number
  - 2. Deviations: None \_\_\_\_\_; As Listed
  - 3. Reference Specification Section
  - 4. Reference Drawing Number
  - 5. Space Requirement: As Designed \_\_\_\_\_ Different, As Listed
  - 6. Representation is made to Owner and Engineer that Contractor has satisfied the requirements of General Conditions associated Supplementary Conditions, and that the Contractor hereby approves this submittal.

Contractor \_\_\_\_\_

Signature \_\_\_\_\_

Date \_\_\_\_\_

Date \_\_\_\_\_
- E. Schedule submittals to expedite the Project and deliver to parties in the quantities and at the locations specified herein.
- F. Identify any and all deviations from Contract Documents.
- G. Identify product and/or system limitations which may be detrimental to successful performance of the completed Work.
- H. Identify space requirements which differ from those designed and/or shown on the Contract Documents.
- I. Provide space for Contractor and Owner review stamps.
- J. Revise and resubmit: Identify all changes made since previous submittal in a cover letter or memorandum.
- K. Distribute copies of reviewed submittals to concerned parties. Instruct parties to promptly report any inability to comply with provisions.

- L. Submittals not required will not be recognized or processed.
- M. Items shall not be fabricated or delivered without fully approved Shop Drawings.
- N. Ensure no associated work begins until associated Shop Drawings are fully approved.
- O. Fabrication prior to receiving an “Approved” or “Approved as Corrected – No Resubmittal Required” is at Contractor’s risk

## 1.4 REVIEW OF SUBMITTALS

- A. Review times:
  - 1. No less than 15 days shall be allowed for Owner’s review of submittals and resubmittals unless otherwise specified in the Contract Documents.
- B. Review Codes:
  - 1. Approved
  - 2. Approved as Corrected – No Resubmittal Required
  - 3. Approved as Corrected – Resubmit Written Responses and Requested Information
  - 4. Revise and Resubmit
  - 5. Not Approved
  - 6. Informational Purposes Only
- C. Payment will not be made for any items requiring submittals until no further submittals are required for the item.

## 1.5 SCHEDULE OF SUBMITTALS

- A. Submit a PDF copy of preliminary Schedule of Submittals.
- B. Revise and resubmit until acceptable to Owner.

## 1.6 SHOP DRAWINGS

- A. Provide information as required by individual Specification sections.
  - 1. Shop Drawing submittals shall include all descriptive data, performance characteristics, material specifications, spare parts list, drawings, piping diagrams, wiring schematics, and shall be complete and accurate to indicate item-by-item compliance with the Contract Documents.
  - 2. Shop Drawings shall be drawn at scales matching those on the Drawings depicting the same items.
  - 3. All catalog cuts, manufacturer's specifications, drawings, and verbal descriptions shall be clearly marked to allow identification of the specific products used.
  - 4. If the submittal deviates from the requirements of the Specifications in any way, it shall be clearly marked in the submittal with the justifying reason stated for evaluation by Engineer.

## 1.7 SAMPLES

- A. Provide Samples of submitted materials as required by individual Specification sections.
- B. Submit Samples to illustrate functional and aesthetic characteristics of the product, with integral parts and attachment devices. Coordinate Sample submittals for interfacing work.
- C. Submit Samples of finishes from the full range of manufacturers' standard colors, textures, and patterns for Owner's selection.
- D. Include identification on each Sample, with full Project information.
- E. Submit the number or samples specified in individual Specification sections; one of which will be retained by Owner.
- F. Reviewed samples which may be used in the Work are indicated in individual Specification sections.

## 1.8 MANUFACTURER'S INSTRUCTIONS

- A. When specified in individual Specification sections, submit manufacturers' printed instructions for delivery, storage, assembly, installation, adjusting, and finishing, in quantities specified for Shop Drawings.

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- B. Identify conflicts between manufacturers' instructions and Contract Documents.

## **PART 2 – PRODUCTS**

NOT USED

## **PART 3 – EXECUTION**

NOT USED

**END OF SECTION**

## SECTION 01 50 00

### TEMPORARY FACILITIES AND CONTROLS

#### PART 1 - GENERAL

##### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

##### 1.2 SUMMARY

- A. Section includes requirements for temporary utilities, support facilities, and security and protection facilities.
- B. Related Requirements:
  - 1. Section 01 10 00 – Summary.
  - 2. Section 01 33 00 – Submittal Procedures.
  - 3. Section 01 77 00 – Closeout Procedures.
  - 4. Section 32 12 16 – Asphalt Paving.

##### 1.3 USE CHARGES

- A. General: Installation and removal of and use charges for temporary facilities shall be included in the Contract Sum unless otherwise indicated. Allow other entities to use temporary services

and facilities without cost, including, but not limited to Architect, occupants of Project, testing agencies, and authorities having jurisdiction.

- B. Sewer Service: Pay sewer-service use charges for sewer usage by all entities for construction operations.
- C. Water Service: Owner will pay water-service use charges for water used by all entities for construction operations.
- D. Electric Power Service: Owner will pay electric-power-service use charges for electricity used by all entities for construction operations.
- E. Water and Sewer Service from Existing System: Water from Owner's existing water system is available for use without metering and without payment of use charges. Provide connections and extensions of services as required for construction operations. Backflow Prevention device(s) shall be required at all connection locations to Owner's water system.
- F. Electric Power Service from Existing System: Electric power from Owner's existing system is available for use without metering and without payment of use charges. Provide connections and extensions of services as required for construction operations.
- G. Retain "Sewer, Water, and Electric Power Service" Paragraph below if multiple contracts are required.
- H. If needed, insert use-charge requirements for other utilities needed for construction operations.

#### **1.4 INFORMATIONAL SUBMITTALS**

- A. Site Plan: Show temporary facilities, utility hookups, staging areas, and parking areas for construction personnel.
- B. Erosion and Sedimentation Control Plan: Show compliance with requirements of EPA Construction General Permit or authorities having jurisdiction, whichever is more stringent.

## 1.5 QUALITY ASSURANCE

- A. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.
- B. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.
- C. Accessible Temporary Egress: Comply with applicable provisions in the U.S. Architectural & Transportation Barriers Compliance Board's ADA-ABA Accessibility Guidelines.

## 1.6 PROJECT CONDITIONS

- A. Temporary Use of Permanent Facilities: Engage Installer of each permanent service to assume responsibility for operation, maintenance, and protection of each permanent service during its use as a construction facility before Owner's acceptance, regardless of previously assigned responsibilities.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

- A. Field Offices, General: Prefabricated or mobile units with serviceable finishes, temperature controls, and foundations adequate for normal loading.
- B. Common-Use Field Office: Of sufficient size to accommodate needs of Owner, Architect, Construction Manager, and construction personnel office activities and to accommodate Project meetings specified in other Division 01 Sections. Keep office clean and orderly. Furnish and equip offices as follows:
  - 1. Furniture required for Project-site documents including file cabinets, plan tables, plan racks, and bookcases.
  - 2. Conference room of sufficient size to accommodate meetings of 10 individuals. Provide electrical power service and 120-V AC duplex receptacles, with no fewer than one receptacle on each wall. Furnish room with conference table, chairs, and 4-foot- (1.2m) square tack and marker boards.
  - 3. Drinking water and private toilet.
  - 4. Coffee machine and supplies.
  - 5. Heating and cooling equipment necessary to maintain a uniform indoor temperature of 68 to 72 deg F (20 to 22 deg C).
  - 6. Lighting fixtures capable of maintaining average illumination of 20 fc (215 lx) at desk height.
- C. Storage and Fabrication Sheds: Provide sheds sized, furnished, and equipped to accommodate materials and equipment for construction operations.
  - 1. Store combustible materials apart from building.

## 2.2 EQUIPMENT

- A. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.
- B. HVAC Equipment: Unless Owner authorizes use of permanent HVAC system, provide vented, self-contained, liquid-propane-gas or fuel-oil heaters with individual space thermostatic control.
  - 1. Use of gasoline-burning space heaters, open-flame heaters, or salamander-type heating units is prohibited.
  - 2. Heating Units: Listed and labeled for type of fuel being consumed, by a qualified testing agency acceptable to authorities having jurisdiction, and marked for intended location and application.

## **PART 3 - EXECUTION**

### **3.1 INSTALLATION, GENERAL**

- A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work.
  - 1. Locate facilities to limit site disturbance as specified in Section 01 10 00 – Summary.
- B. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

### **3.2 TEMPORARY UTILITY INSTALLATION**

- A. General: Install temporary service or connect to existing service.
  - 1. Arrange with utility company, Owner, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services.
- B. Sewers and Drainage: Provide temporary utilities to remove effluent lawfully.
- C. Water Service: Install water service and distribution piping in sizes and pressures adequate for construction.
- D. Water Service: Connect to Owner's existing water service facilities. Clean and maintain water service facilities in a condition acceptable to Owner. At Substantial Completion, restore these facilities to condition existing before initial use.
- E. Sanitary Facilities: Provide temporary toilets, wash facilities, and drinking water for use of construction personnel. Comply with requirements of authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.

- F. Heating and Cooling: Provide temporary heating and cooling required by construction activities for curing or drying of completed installations or for protecting installed construction from adverse effects of low temperatures or high humidity. Select equipment that will not have a harmful effect on completed installations or elements being installed.
  
- G. Isolation of Work Areas in Occupied Facilities: Prevent dust, fumes, and odors from entering occupied areas.
  - 1. Prior to commencing work, isolate the HVAC system in area where work is to be performed according to coordination drawings.
    - a. Disconnect supply and return ductwork in work area from HVAC systems servicing occupied areas.
    - b. Maintain negative air pressure within work area using HEPA-equipped air-filtration units, starting with commencement of temporary partition construction, and continuing until removal of temporary partitions is complete.
  - 2. Maintain dust partitions during the Work. Use vacuum collection attachments on dust-producing equipment. Isolate limited work within occupied areas using portable dust-containment devices.
  - 3. Perform daily construction cleanup and final cleanup using approved, HEPA-filter-equipped vacuum equipment.
  
- H. Ventilation and Humidity Control: Provide temporary ventilation required by construction activities for curing or drying of completed installations or for protecting installed construction from adverse effects of high humidity. Select equipment that will not have a harmful effect on completed installations or elements being installed. Coordinate ventilation requirements to produce ambient condition required and minimize energy consumption.
  - 1. Provide dehumidification systems when required to reduce substrate moisture levels to level required to allow installation or application of finishes.
  
- I. Electric Power Service: Connect to Owner's existing electric power service. Maintain equipment in a condition acceptable to Owner.
  - 1. Connect temporary service to Owner's existing power source, as directed by Owner.
  
- J. Lighting: Provide temporary lighting with local switching that provides adequate illumination for construction operations, observations, inspections, and traffic conditions.

1. Install and operate temporary lighting that fulfills security and protection requirements without operating entire system.
  2. Install lighting for Project identification sign.
- K. Telephone Service: Provide temporary telephone service in common-use facilities for use by all construction personnel. Install **one** telephone line(s) for each field office.
1. Provide additional telephone lines for the following:
    - a. Provide a dedicated telephone line for each facsimile machine in each field office.
  2. At each telephone, post a list of important telephone numbers.
    - a. Police and fire departments.
    - b. Ambulance service.
    - c. Contractor's home office.
    - d. Contractor's emergency after-hours telephone number.
    - e. Architect's office.
    - f. Engineers' offices.
    - g. Owner's office.
    - h. Principal subcontractors' field and home offices.
  3. Provide superintendent with cellular telephone or portable two-way radio for use when away from field office.

### 3.3 SUPPORT FACILITIES INSTALLATION

- A. General: Comply with the following:
1. Provide construction for temporary offices, shops, and sheds located within construction area or within 30 feet (9 m) of building lines that is noncombustible according to ASTM E 136. Comply with NFPA 241.
  2. Maintain support facilities until Architect schedules Substantial Completion inspection. Remove before Substantial Completion. Personnel remaining after Substantial Completion will be permitted to use permanent facilities, under conditions acceptable to Owner.
- B. Temporary Roads and Paved Areas: Construct and maintain temporary roads and paved areas adequate for construction operations. Locate temporary roads and paved areas **as indicated** on Drawings.
1. Provide dust-control treatment that is nonpolluting and nontracking. Reapply treatment as required to minimize dust.

- C. Temporary Use of Permanent Roads and Paved Areas: Locate temporary roads and paved areas in same location as permanent roads and paved areas. Construct and maintain temporary roads and paved areas adequate for construction operations. Extend temporary roads and paved areas, within construction limits indicated, as necessary for construction operations.
  - 1. Coordinate elevations of temporary roads and paved areas with permanent roads and paved areas.
  - 2. Prepare subgrade and install subbase and base for temporary roads and paved areas according to Section 31 20 00 – Earth Moving.
  - 3. Recondition base after temporary use, including removing contaminated material, regrading, proof rolling, compacting, and testing.
  - 4. Delay installation of final course of permanent hot-mix asphalt pavement until immediately before Substantial Completion. Repair hot-mix asphalt base-course pavement before installation of final course according to Section 32 12 16 – Asphalt Paving.
  
- D. Traffic Controls: Comply with requirements of authorities having jurisdiction.
  - 1. Protect existing site improvements to remain including curbs, pavement, and utilities.
  - 2. Maintain access for fire-fighting equipment and access to fire hydrants.
  
- E. Parking: Use designated areas of Owner's existing parking areas for construction personnel.
  
- F. Dewatering Facilities and Drains: Comply with requirements of authorities having jurisdiction. Maintain Project site, excavations, and construction free of water.
  - 1. Dispose of rainwater in a lawful manner that will not result in flooding Project or adjoining properties or endanger permanent Work or temporary facilities.
  - 2. Remove snow and ice as required to minimize accumulations.
  
- G. Project Signs: Provide Project signs as indicated. Unauthorized signs are not permitted.
  - 1. Identification Signs: Provide Project identification signs as indicated on Drawings.
  - 2. Temporary Signs: Provide other signs as indicated and as required to inform public and individuals seeking entrance to Project.

- a. Provide temporary, directional signs for construction personnel and visitors.
  3. Maintain and touchup signs so that they are always legible.
- H. Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from construction operations. Comply with requirements of authorities having jurisdiction.
- I. Lifts and Hoists: Provide facilities necessary for hoisting materials and personnel.
1. Truck cranes and similar devices used for hoisting materials are considered "tools and equipment" and are not temporary facilities.

### **3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION**

- A. Protection of Existing Facilities: Protect existing vegetation, equipment, structures, utilities, and other improvements at Project site and on adjacent properties, except those indicated to be removed or altered. Repair damage to existing facilities.
- B. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction as required to comply with environmental regulations and minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.
1. Comply with work restrictions specified in Section 01 10 00 – Summary.
- C. Temporary Erosion and Sedimentation Control: Comply with requirements of 2003 EPA Construction General Permit or authorities having jurisdiction, whichever is more stringent and requirements specified in Section 31 10 00 – Site Clearing.

- D. Stormwater Control: Comply with requirements of authorities having jurisdiction. Provide barriers in and around excavations and subgrade construction to prevent flooding by runoff of stormwater from heavy rains.
- E. Tree and Plant Protection: Install temporary fencing located as indicated or outside the drip line of trees to protect vegetation from damage from construction operations. Protect tree root systems from damage, flooding, and erosion.
- F. Pest Control: Engage pest-control service to recommend practices to minimize attraction and harboring of rodents, roaches, and other pests and to perform extermination and control procedures at regular intervals so Project will be free of pests and their residues at Substantial Completion. Perform control operations lawfully, using environmentally safe materials.
- G. Security Enclosure and Lockup: Install temporary enclosure around partially completed areas of construction. Provide lockable entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security. Lock entrances at end of each workday.
- H. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.
- I. Temporary Egress: Maintain temporary egress from existing occupied facilities as indicated and as required by authorities having jurisdiction.
- J. Temporary Enclosures: Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities. Provide temporary weathertight enclosure for building exterior.
  - 1. Where heating or cooling is needed and permanent enclosure is incomplete, insulate temporary enclosures.

- K. Temporary Fire Protection: Install and maintain temporary fire-protection facilities of types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 241; manage fire-prevention program.
1. Prohibit smoking in construction areas.
  2. Supervise welding operations, combustion-type temporary heating units, and similar sources of fire ignition according to requirements of authorities having jurisdiction.
  3. Develop and supervise an overall fire-prevention and -protection program for personnel at Project site. Review needs with local fire department and establish procedures to be followed. Instruct personnel in methods and procedures. Post warnings and information.
  4. Provide temporary standpipes and hoses for fire protection. Hang hoses with a warning sign stating that hoses are for fire-protection purposes only and are not to be removed. Match hose size with outlet size and equip with suitable nozzles.

### 3.5 MOISTURE AND MOLD CONTROL

- A. Contractor's Moisture-Protection Plan: Avoid trapping water in finished work. Document visible signs of mold that may appear during construction.
- B. Exposed Construction Phase: Before installation of weather barriers, when materials are subject to wetting and exposure and to airborne mold spores, protect as follows:
1. Protect porous materials from water damage.
  2. Protect stored and installed material from flowing or standing water.
  3. Keep porous and organic materials from coming into prolonged contact with concrete.
  4. Remove standing water from decks.
  5. Keep deck openings covered or dammed.
- C. Partially Enclosed Construction Phase: After installation of weather barriers but before full enclosure and conditioning of building, when installed materials are still subject to infiltration of moisture and ambient mold spores, protect as follows:
1. Do not load or install drywall or other porous materials or components, or items with high organic content, into partially enclosed building.
  2. Keep interior spaces reasonably clean and protected from water damage.

3. Periodically collect and remove waste containing cellulose or other organic matter.
  4. Discard or replace water-damaged material.
  5. Do not install material that is wet.
  6. Discard, replace, or clean stored or installed material that begins to grow mold.
  7. Perform work in a sequence that allows any wet materials adequate time to dry before enclosing the material in drywall or other interior finishes.
- D. Controlled Construction Phase of Construction: After completing and sealing of the building enclosure but prior to the full operation of permanent HVAC systems, maintain as follows:
1. Control moisture and humidity inside building by maintaining effective dry-in conditions.
  2. Use permanent HVAC system to control humidity.
  3. Comply with manufacturer's written instructions for temperature, relative humidity, and exposure to water limits.
    - a. Hygroscopic materials that may support mold growth, including wood and gypsum-based products, that become wet during construction and remain wet for 48 hours are considered defective.
    - b. Measure moisture content of materials that have been exposed to moisture during construction operations or after installation. Record readings beginning at time of exposure and continuing daily for 48 hours. Identify materials containing moisture levels higher than allowed. Report findings in writing to Architect.
    - c. Remove materials that cannot be completely restored to their manufactured moisture level within 48 hours.

### 3.6 OPERATION, TERMINATION, AND REMOVAL

- A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.
- B. Maintenance: Maintain facilities in good operating condition until removal.
  1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.
- C. Operate Project-identification-sign lighting daily from dusk until 12:00 midnight.
- D. Temporary Facility Changeover: Do not change over from using temporary security and protection facilities to permanent facilities until Substantial Completion.
- E. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may

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have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.

1. Materials and facilities that constitute temporary facilities are property of Contractor. Owner reserves right to take possession of Project identification signs.
2. Remove temporary roads and paved areas not intended for or acceptable for integration into permanent construction. Where area is intended for landscape development, remove soil and aggregate fill that do not comply with requirements for fill or subsoil. Remove materials contaminated with road oil, asphalt and other petrochemical compounds, and other substances that might impair growth of plant materials or lawns. Repair or replace street paving, curbs, and sidewalks at temporary entrances, as required by authorities having jurisdiction.
3. At Substantial Completion, repair, renovate, and clean permanent facilities used during construction period. Comply with final cleaning requirements specified in Section 01 77 00 – Closeout Procedures.

**END OF SECTION**

## SECTION 01 77 00

### CLOSEOUT PROCEDURES

#### PART 1 - GENERAL

##### 1.1 SUMMARY

- A. Section includes administrative and procedural requirements for Contract closeout, including, but not limited to, the following:
  - 1. Field surveying.
  - 2. Close out procedures.
  - 3. Starting of systems.
  - 4. Demonstration and instructions.
  - 5. Project record documents.
  - 6. Operation and maintenance data.
  - 7. Spare parts and maintenance products.
  - 8. Product warranties and product bonds.
  - 9. Substantial Completion
  - 10. Final Completion
  - 11. Examination.
  - 12. Execution.
  - 13. Cutting and patching.
  - 14. Protecting installed construction.
  - 15. Final cleaning.
  - 16. Certification, conveyance, and plats.
  
- B. Related Requirements:
  - 1. Section 01 33 00 – Submittal Procedures.
  - 2. Section 01 50 00 – Temporary Facilities and Controls.

##### 1.2 DEFINITIONS

- A. Substantial Completion: Stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use.
  
- B. List of Incomplete Items (Punch List): Contractor-prepared list of items to be completed or corrected prior to Substantial Completion and Final Completion.

## 1.3 FIELD SURVEYING

- A. A Licensed Land Surveyor shall be employed to provide a preconstruction survey of all utilities and appurtenances per the approved construction plans. Certifications of this work shall be provided to OWNER prior to installation. Any conflicts noted with the survey shall be noted and changes to the construction plans shall be approved prior to installation.
- B. Locate and protect survey control and reference points. Promptly notify Engineer of discrepancies discovered.
- C. Control datum for survey is established by Engineer-provided survey and indicated on Drawings.
- D. Verify easements; confirm Drawing dimensions and elevations.
- E. Proposed easements shall be staked prior to installation of utilities.
- F. Provide field surveying and recording services. Establish elevations, lines, and points using recognized survey practices.
- G. Protect survey control points prior to starting Site Work; preserve permanent reference points during construction.
- H. Replace dislocated survey control points based on original survey control. Make no changes without prior written notice to Engineer.
- I. Final Record Survey: Prior to Substantial Completion, submit markup of final record in accordance with Project Record Documents in this section.

## 1.4 CLOSEOUT PROCEDURES

- A. Prerequisites to Utility Activation: Complete following items before requesting Utility Activation, either for entire Work or for portions of Work:
  - 1. Complete testing, adjusting, balancing of systems and equipment, demonstrations, and instructions to OWNER's operating and maintenance personnel as specified in compliance with this Section.
  - 2. Submit maintenance manuals, spare parts, Project record documents, markups, gravity sewer video inspection, warranty letters and other similar final record data in compliance with this Section.
  - 3. Coordinate Final Walk-Through inspection by OWNER to establish basis for request that Work is complete.
  - 4. Make final change-over of locks and transmit keys directly to OWNER. Advise OWNER's personnel of changeover in security provisions.
  - 5. Discontinue or change over and remove temporary facilities and services from Project Site.
  - 6. Perform final cleaning according to this Section.

## 1.5 OPERATION AND MAINTENANCE MANUALS – MINIMUM CONTENT

- A. Operation and Maintenance manuals shall include, at a minimum, the following for each major equipment item:
1. Installation sequence and instructions.
  2. Functional description of system operation for all operating modes.
  3. Description of alarms, interlocks, and failsafe features.
  4. Emergency operating procedures and troubleshooting guide.
  5. Exploded-view drawings and assembly diagrams.
  6. Comprehensive parts list including manufacturer, part numbers, and ordering information.
  7. Recommended spare parts list with quantities.
  8. Preventive maintenance schedules and procedures.
  9. Lubrication schedules including lubricant type and service intervals.
  10. Procedures for extended out-of-service or seasonal shutdown periods.
  11. Performance curves and nameplate data.
  12. Field-verified power and control wiring diagrams
- B. Manuals lacking the above information will be considered incomplete and shall not be accepted.

## 1.6 STARTING OF SYSTEMS

- A. Coordinate schedule for startup of various equipment and systems.
- B. Notify Engineer seven days prior to startup of each item.
- C. Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, and for conditions which may cause damage.
- D. Verify that tests, meter readings, and electrical characteristics agree with those required by equipment or system manufacturer.
- E. Verify that wiring and support components for equipment are complete and tested.
- F. Execute startups under supervision of manufacturer's representative or Contractors' personnel according to manufacturer's instructions.
- G. When specified in individual Specification Sections, require manufacturer to provide authorized representatives who will be present at Site to inspect, check, and approve equipment or system installation prior to startup and will supervise placing equipment or system in operation.

- H. Submit a written report that equipment or system has been properly installed and is functioning correctly.

## 1.7 DEMONSTRATION AND INSTRUCTIONS

- A. Demonstrate operation and maintenance of products to OWNER personnel.
- B. Demonstrate Project equipment and instructed by authorized manufacturer's representative who is knowledgeable about the Project.
- C. Use operation and maintenance manuals as basis for instruction. Review contents of manual with OWNER personnel in detail to explain all aspects of operation and maintenance.
- D. Demonstrate startup, operation, control, adjustment, troubleshooting, servicing, maintenance, and shutdown of each item of equipment at scheduled time, at equipment location.

## 1.8 PROJECT RECORD DOCUMENTS

- A. Maintain one set of the following record documents; record actual revisions to the Work:
  - 1. Drawings.
  - 2. Specifications.
  - 3. Reviewed Shop Drawings, product data, and Samples.
  - 4. Manufacturer's instruction for assembly, installation, and adjusting.
- B. Ensure entries are complete and accurate, enabling future reference by Owner.
- C. Record information concurrent with construction progress, not less than weekly. Report recording status at progress meetings.
- D. Specifications: Legibly mark and record, at each product Section, description of actual products installed, including the following:
  - 1. Manufacturer's name and product model and number.
  - 2. Product substitutions or alternates used.
  - 3. Changes made by Addenda and modifications.
- E. Record Drawings and Shop Drawings: Legibly mark each item to record actual construction as follows:
  - 1. Include Contract modifications such as Addenda, supplementary instructions, change directives, field orders, minor changes in the Work, and change orders.
  - 2. Include locations of concealed elements of the Work.
  - 3. Identify depth of buried utility lines and provide dimensions showing distances from permanent facility components that are parallel to utilities.
  - 4. Dimension ends, corners, and junctions of buried utilities to permanent facility components using triangulation.
  - 5. Identify and locate existing buried or concealed items encountered during Project.
  - 6. Measured horizontal and vertical locations of underground utilities and appurtenances,

referenced to permanent surface improvements.

7. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
  8. Field changes of dimension and detail.
  9. Details not on original Drawings.
- F. Certified, surveyed record drawings (“as-built” plans), sealed by a NY licensed Professional Land Surveyor shall be furnished to the OWNER by the Contractor of Record upon completion and acceptance of the infrastructure by the OWNER. The “as-built” plans shall conform to the as-built checklist included here- in.
- G. For sewer projects, the “as-built” plans shall include accurate information regarding pipe size, pipe material, pipe length, manhole construction (size of manhole, invert, rim, alignment, location), services, and pump stations along with any relevant rights- of-way, property boundaries and easements. Plans shall also include sewer profiles showing any utility crossings and separations along with the aforementioned information.
- H. For pump station projects, the “as-built” plans shall include accurate information regarding interior and exterior pipe sizes, material, length, as well as all structural dimensions of the pump station, all electrical equipment (make and model), pump in- formation (make, model, and impeller size), and site layout information. Top plan, sectional plan, and full cross-section views are required on the “as-built” plans.
- I. For force main projects, the “as-built” plans shall include accurate information regarding pipe size, pipe material, pipe length, horizontal and vertical elevations, valve locations (and turn direction), hydrant locations, fitting locations, services, and blow-off lo- cations along with any relevant rights-of-way, property boundaries and easements.
- J. The final elevation of the force main shall be surveyed every 50’, at each change in horizontal and vertical direction, and at each valve location with final grade in place.
- K. For water projects, the “as-built” plans shall include accurate information regarding pipe size, pipe material, pipe length, horizontal and vertical elevations, valve locations (and turn direction), hydrant locations, fitting locations, services, and blow-off locations along with any relevant rights-of-way, property boundaries and easements.
- L. The final elevation of the water main shall be surveyed every 50’, at each change in horizontal and vertical direction, and at each valve location with final grade in place.
- M. Submit marked-up paper copy documents to Engineer at each payment request and before Substantial Completion.
- N. Digital “as-built” information shall be provided by the Engineer of Record in AutoCAD format and PDF format with seal, signature, and date by surveyor and engineer and shall include all information required on the “as-built” drawings. No other digital for- mats will be accepted.

**1.9 OPERATION AND MAINTENANCE DATA**

- A. Submit in PDF composite electronic indexed file.
- B. Submit data bound in 8-1/2 x 11-inch text pages, three D side ring binders with durable plastic covers.
- C. Prepare binder cover with printed title "OPERATION AND MAINTENANCE INSTRUCTIONS," title of Project, and subject matter of binder when multiple binders are required.
- D. Internally subdivide binder contents with permanent page dividers, logically organized as described below; with tab titling clearly printed under reinforced laminated plastic tabs.
- E. Drawings: Provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.
- F. Contents: Prepare table of contents for each volume, with each product or system description identified, typed on white paper, in three parts as follows:
  - 1. Part 1: Directory, listing names, addresses, and telephone numbers of Engineer, Contractor, Subcontractors, and major equipment suppliers.
  - 2. Part 2: Operation and maintenance instructions, arranged by system and subdivided by Specification Section. For each category, identify names, addresses, and telephone numbers of Subcontractors and suppliers. Include the following:
    - a. Significant design criteria.
    - b. List of equipment.
    - c. Parts list for each component.
    - d. Operating instructions.
    - e. Maintenance instructions for equipment and systems.
    - f. Contact information for warranty items.
    - g. Safety precautions are to be taken when operating and maintaining or working near equipment.
  - 3. Part 3: Project documents and certificates, including the following:
    - a. Shop Drawings and product data.
    - b. Certificates.
    - c. Photocopies of warranties and bonds.

**1.10 SPARE PARTS AND MAINTENANCE PRODUCTS**

- A. Furnish spare parts, maintenance, and extra products in quantities specified in individual Specification Sections.
- B. Deliver to Project Site and place in location as directed by OWNER; obtain receipt prior to final payment.

**1.11****PRODUCT WARRANTIES AND PRODUCT BONDS**

- A. Obtain warranties and bonds executed in duplicate by responsible Subcontractors, suppliers, and manufacturers within ten days after completion of applicable item of Work.
- B. Execute and assemble transferable warranty documents and bonds from Subcontractors, suppliers, and manufacturers.
- C. Verify documents are in proper form, contain full information, and are notarized.
- D. Co-execute submittals when required.
- E. Include table of contents and assemble in three D side ring binder with durable plastic cover.
- F. Submit prior to final completion.
- G. Time of Submittals:
  - 1. For equipment or component parts of equipment put into service during construction with OWNER's permission, submit documents within ten days after acceptance.
  - 2. Make other submittals prior to final completion.

**1.12 SUBSTANTIAL COMPLETION PROCEDURES**

- A. Contractor's List of Incomplete Items: Prepare and submit a list of items to be completed and corrected (Contractor's "punch list"), indicating the value of each item on the list and reasons why the Work is incomplete.
- B. Submittals Prior to Substantial Completion: Complete the following a minimum of 10 days prior to requesting inspection for determining date of Substantial Completion. List items below are incomplete at time of request.
  - 1. Certificates of Release: Obtain and submit releases from authorities having jurisdiction, permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
  - 2. Submit closeout submittals specified in other Division 01 Sections, including Project Record Documents, operation and maintenance manuals, damage or settlement surveys, property surveys, and similar final record information.
  - 3. Submit closeout submittals specified in individual Sections, including specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
  - 4. Submit maintenance material submittals specified in individual Sections, including tools, spare parts, extra materials, and similar items, and deliver to location designated by Engineer. Label with manufacturer's name and model number.
    - a. Schedule of Maintenance Material Items: Prepare and submit schedule of maintenance material submittal items, including name and quantity of each item

and name and number of related Specification Section. Obtain Owner's signature for receipt of submittals.

5. Submit testing, adjusting, and balancing records.
  6. Submit sustainable design submittals not previously submitted.
  7. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
- C. Procedures Prior to Substantial Completion: Complete the following a minimum of 10 days prior to requesting inspection for determining date of Substantial Completion. List items below are incomplete at time of request.
1. Advise Owner of pending insurance changeover requirements.
  2. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
  3. Complete startup and testing of systems and equipment.
  4. Perform preventive maintenance on equipment used prior to Substantial Completion.
  5. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems.
  6. Advise Owner of changeover in utility services.
  7. Participate with Owner in conducting inspection and walkthrough with local emergency responders.
  8. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
  9. Complete final cleaning requirements.
  10. Touch up paint and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- D. Inspection: Submit a written request for inspection to determine Substantial Completion a minimum of 10 days prior to date the Work will be completed and ready for final inspection and tests. On receipt of request, Engineer will either proceed with inspection or notify Contractor of unfulfilled requirements. Engineer will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Engineer, which must be completed or corrected before certificate will be issued.
1. Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
  2. Results of completed inspection will form the basis of requirements for Final Completion.

## **1.13 FINAL COMPLETION PROCEDURES**

- A. Submittals Prior to Final Completion: Before requesting final inspection for determining Final Completion, complete the following:
1. Certified List of Incomplete Items: Submit certified copy of Engineer's Substantial

Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Engineer. Certified copy of the list will state that each item has been completed or otherwise resolved for acceptance.

2. Certificate of Insurance: Submit evidence of final, continuing insurance coverage complying with insurance requirements.
  3. Submit pest-control final inspection report.
  4. Submit Final Completion photographic documentation.
- B. Inspection: Submit a written request for final inspection to determine acceptance a minimum of 10 days prior to date the Work will be completed and ready for final inspection and tests. On receipt of request, Engineer will either proceed with inspection or notify Contractor of unfulfilled requirements. Engineer will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.
1. Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.

## 1.14 LIST OF INCOMPLETE ITEMS

- A. Organization of List: Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction.
1. Organize list of spaces in sequential order, starting with exterior areas first and proceeding from lowest floor to highest floor, listed by room or space number.
  2. Organize items applying to each space by major element, including categories for ceilings, individual walls, floors, equipment, and building systems.
  3. Include the following information at the top of each page:
    - a. Project name.
    - b. Date.
    - c. Name of Engineer.
    - d. Name of Contractor.
    - e. Page number.
  4. Submit list of incomplete items in the following format:
    - a. MS Excel Electronic File: Engineer will return annotated file.
    - b. PDF Electronic File: Engineer will return annotated file.
    - c. Web-Based Project Software Upload: Utilize software feature for creating and updating lists of incomplete items (punch list).
    - d. Three Paper Copies: Engineer will return two copies.

## **PART 2 - PRODUCTS**

### **2.1 MATERIALS**

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

## **PART 3 - EXECUTION**

### **3.1 EXAMINATION**

- A. Verify that existing Site conditions are acceptable for subsequent Work. Beginning new Work means acceptance of existing conditions.
- B. Examine and verify specific conditions described in individual Specification Sections.
- C. Verify that utility services are available with correct characteristics and in correct locations.

### **3.2 EXECUTION**

- A. Comply with manufacturer's installation instructions, performing each step, in sequence. Maintain one set of manufacturer's installation instructions at Project Site during installation and until completion of construction.
- B. When manufacturer's installation instructions conflict with Contract Documents, request clarification from Engineer before proceeding.
- C. Verify that field measurements are as indicated on approved Shop Drawings or as instructed by manufacturer.
- D. Conduct a preconstruction survey, staking out all proposed easements, right-of-ways, and proposed utilities. Provide a certificate of each survey once completed.
- E. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.
  - 1. Secure Work true to line and level and within specified tolerances, or if not specified, industry-recognized tolerances.
  - 2. Physically separate products in place, provide electrical insulation, or provide protective coatings to prevent galvanic action or corrosion between dissimilar metals.
- F. Allow for expansion of materials.

- G. Mounting Heights: Where not indicated, mount individual units of Work at industry recognized standard mounting heights for application indicated.
  - 1. Refer questionable mounting heights choices to Engineer for final decision.
- H. Adjust operating products and equipment to ensure smooth and unhindered operation.
- I. Clean and perform maintenance on installed Work as frequently as necessary through remainder of construction period. Lubricate operable components as recommended by manufacturer.

### 3.3 CUTTING AND PATCHING

- A. Employ skilled and experienced installers to perform cutting and patching.
- B. Submit written request in advance of cutting or altering elements affecting:
  - 1. Structural integrity of element.
  - 2. Integrity of weather-exposed or moisture-resistant elements.
  - 3. Efficiency, maintenance, or safety of element.
  - 4. Work of OWNER or separate contractor.
- C. Execute cutting, fitting, and patching including excavation and fill to complete Work and to:
  - 1. Fit the several parts together, to integrate with other Work.
  - 2. Uncover Work to install or correct ill-timed Work.
  - 3. Remove and replace defective and nonconforming Work.
  - 4. Provide openings in elements of Work for penetrations of mechanical and electrical Work.
- D. Execute Work by methods to avoid damage to other Work and to provide proper surfaces to receive patching and finishing.
- E. Cut masonry and concrete materials using masonry saw or core drill.
- F. Restore Work with new products according to requirements of Contract Documents.
- G. Fit Work tight to pipes, sleeves, ducts, conduits, and other penetrations through surfaces.
- H. Maintain integrity of wall, ceiling, or floor construction, completely seal voids.
- I. Refinish surfaces to match adjacent finishes. For continuous surfaces, refinish to nearest joint or intersection; for equipment assembly, refinish entire unit.
- J. Identify hazardous substances or conditions exposed during the Work to Engineer for decision or remedy.

### 3.4 PROTECTING INSTALLED CONSTRUCTION

- A. Protect installed Work and provide special protection where specified in individual Specification Sections.
- B. Provide temporary and removable protection for installed products. Control activity in immediate Work area to prevent damage.
- C. Protect corrosion protected (coated) surfaces. When activity is necessary, obtain recommendations for protection from coating material manufacturer.
- D. Prohibit traffic from landscaped areas.

### **3.5 FINAL CLEANING**

- A. Execute final cleaning prior to final Project assessment.
- B. Clean Site and Facilities; sweep paved areas, rake clean landscaped surfaces.
- C. Remove waste and surplus materials, rubbish, and construction facilities from Site.

### **3.6 CERTIFICATION, CONVOYANCE, AND PLATS**

- A. Follow the Certification, Conveyance, and requirements outlined in the Development Process and Procedures Manual.
- B. Record Drawings shall be provided with accurate information including final horizontal and vertical locations of all utilities.
- C. The final survey shall be conducted with respect to the final grade. All horizontal and vertical direction changes shall be captured, and each valve location.

**END OF SECTION**

**SECTION 31 10 00****SITE CLEARING****PART 1 - GENERAL****1.1 DEFINITIONS**

- A. Subsoil: All soil beneath the topsoil layer of the soil profile, and typified by the lack of organic matter and soil organisms.
- B. Surface Soil: Soil that is present at the top layer of the existing soil profile at the Project site. In undisturbed areas, the surface soil is typically topsoil; but in disturbed areas such as urban environments, the surface soil can be subsoil.
- C. Topsoil: Top layer of the soil profile consisting of existing native surface topsoil or existing in-place surface soil and is the zone where plant roots grow.
- D. Vegetation: Trees, shrubs, groundcovers, grass, and other plants.

**1.2 MATERIAL OWNERSHIP**

- A. Except for stripped topsoil and other materials indicated or directed by the Authority to be stockpiled or otherwise remain the Authority's property, cleared materials shall become Contractor's property and shall be removed from Project site. Do not allow cleared material to intermix with stockpiled topsoil.

**1.3 SUBMITTALS**

- A. Existing Conditions: Documentation of adjoining construction and site improvements that establishes preconstruction conditions that might be misconstrued as damage caused by site clearing.
  - 1. Use sufficiently detailed photographs or videotape.
- B. Record Drawings: Identifying and accurately showing locations of capped utilities and other subsurface structural, electrical, and mechanical conditions.

**1.4 PROJECT CONDITIONS**

- A. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during site-clearing operations.
  - 1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from the Authority and Authorities having jurisdiction.

2. Provide alternate routes around closed or obstructed traffic ways if required by the Authority or Authorities having jurisdiction.
- B. Salvable Improvements: Carefully remove items indicated to be salvaged and store on the Authority's premises where indicated, or as directed by the Authority.
- C. Verify with the Authority and Utility Companies the location of all underground utilities on site.
- D. Utility Locator Service: Notify Dig Safely New York, Inc. at (800) 962-7962 for area where Project is located before site clearing.
- E. Site Inspection: Prior to all work of this Section, carefully inspect the entire site, notify the Authority of any discrepancies between the design of the drawings and actual physical site conditions.
- F. Do not commence site clearing operations until temporary erosion and sedimentation-control measures are in place.
- G. Soil Stripping, Handling, and Stockpiling: Perform only when the topsoil is dry or slightly moist.

## **PART 2 - PRODUCTS**

### **2.1 MATERIALS**

- A. Satisfactory Soil Material: Requirements for satisfactory soil material are specified in Division 31 Section "Earth Moving."
  1. Obtain approved borrow soil material off-site when satisfactory soil material is not available on-site.

## **PART 3 - EXECUTION**

### **3.1 PREPARATION**

- A. Protect and maintain benchmarks and survey control points from disturbance during construction.
- B. Protect existing site improvements to remain from damage during construction.
  1. Restore damaged improvements to their original condition, as acceptable to the Authority.

### **3.2 TEMPORARY EROSION AND SEDIMENTATION CONTROL**

- A. Provide temporary erosion- and sedimentation-control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and roadways.

- B. Inspect, maintain, and repair erosion- and sedimentation-control measures during construction until permanent vegetation has been established or pavements have been installed.
- C. Upon completion of construction activities, remove erosion- and sedimentation-control measures. Restore and stabilize areas disturbed during removal operations.

### **3.3 EXISTING IMPROVEMENTS**

- A. Use all means necessary to protect existing improvements not designated for removal and, in the event of damage, immediately make all repairs and replacements necessary to the approval of the Authority at no additional cost to the Authority.

### **3.4 EXISTING UTILITIES**

- A. Preserve in operating condition all active utilities transversing the site and designated to remain. Indicated locations are approximate; determine exact locations before commencing work.
- B. Arrange and pay for disconnecting and sealing indicated utilities that serve existing structures before site clearing. Notify affected Utility Companies in advance and obtain approval before starting work.
  - 1. Verify that utilities have been disconnected and capped before proceeding with site clearing.
- C. Locate, identify, disconnect, and seal or cap utilities indicated to be removed or abandoned in place.
  - 1. Place markers to indicate location of disconnected services. Identify service lines and capping locations on Project Record Documents.
  - 2. Arrange with Utility Companies to shut off indicated utilities.
  - 3. The Authority will arrange to shut off indicated privately owned utilities when requested by Contractor.
- D. Excavate for and remove underground utilities indicated to be removed.
- E. Interrupting Existing Utilities: Do not interrupt utilities serving facilities occupied by the Authority or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
  - 1. Notify the Authority and authorities having jurisdiction not less than two days in advance of proposed utility interruptions.
  - 2. Do not proceed with utility interruptions without the Authority's and authorities having jurisdiction written permission.

**3.5 CLEARING AND GRUBBING**

- A. Remove obstructions, trees, shrubs, and other vegetation to permit installation of new construction.
  - 1. Do not remove trees, shrubs, and other vegetation indicated to remain.
  - 2. Grind down stumps and remove roots, obstructions, and debris to a depth of 12 inches below finished subgrade elevation.
  - 3. Chip removed tree branches and dispose of off-site.
- B. Fill depressions caused by clearing and grubbing operations with satisfactory soil material unless further excavation or earthwork is indicated.
  - 1. Place fill material in horizontal layers not exceeding a loose depth of 8 inches, and compact each layer to a density equal to adjacent original ground.

**3.6 TOPSOIL STRIPPING**

- A. Remove sod and grass before stripping topsoil.
- B. Strip topsoil to whatever depths are encountered in a manner to prevent intermingling with underlying subsoil or other waste materials.
- C. Stockpile topsoil away from edge of excavations without intermixing with subsoil. Grade and shape stockpiles to drain surface water. Cover to prevent windblown dust and erosion by water or provide temporary seed and mulch. See Section 32 92 00 for temporary seed requirements.
  - 1. Dispose of surplus topsoil. Surplus topsoil is that which exceeds quantity indicated to be stockpiled or reused.
  - 2. Do not remove surplus topsoil from the site without the Authority's and authorities having jurisdiction prior approval.

**3.7 SITE IMPROVEMENTS**

- A. Remove existing above- and below-grade improvements as indicated and necessary to facilitate new construction.
- B. Remove slabs, paving, curbs, and aggregate base as indicated.
  - 1. Unless existing full-depth joints coincide with line of demolition, neatly saw-cut along line of existing pavement to remain before removing adjacent existing pavement. Saw-cut faces vertically.

**3.8 DUST CONTROL**

- A. Use all means necessary to prevent the spread of dust during performance of the work of this Section; thoroughly moisten all surfaces as required to prevent dust being a nuisance to the public, neighbors, and concurrent performance of other work on the site.

**3.9 BURNING**

- A. On-site burning will not be permitted.

**3.10 DISPOSAL OF SURPLUS AND WASTE MATERIALS**

- A. Remove surplus soil material, unsuitable topsoil, obstructions, demolished materials, and waste materials including trash and debris, and legally dispose of them off-site.

**3.11 SALVAGE OF MATERIALS**

- A. Carefully remove items indicated to be salvaged and store on the Authority's premises as directed by the Authority.

**END OF SECTION**

## SECTION 31 20 00

### EARTH MOVING

#### PART 1 - GENERAL

##### 1.1 DEFINITIONS

- A. Backfill: Soil material or controlled low-strength material used to fill an excavation.
  - 1. Final Backfill: Backfill placed over bedding course to fill a trench.
- B. Bedding Course: Aggregate layer placed over the excavated subgrade in a trench before laying pipe.
- C. Borrow Soil: Satisfactory soil imported from off-site for use as fill or backfill.
- D. Excavation: Removal of material encountered above subgrade elevations and to lines and dimensions indicated.
  - 1. Authorized Additional Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions as directed by the Authority. Authorized additional excavation and replacement material will be paid for according to Contract provisions for changes in the Work.
  - 2. Bulk Excavation: Excavation more than 10-feet in width and more than 30-feet in length.
  - 3. Unauthorized Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions without direction by the Authority. Unauthorized excavation, as well as remedial work directed by the Authority, shall be without additional compensation.
- E. Fill: Soil materials used to raise existing grades.
- F. Rock: Rock material in beds, ledges, unstratified masses, conglomerate deposits, and boulders of rock material that exceed 1 cu. yd. for bulk excavation or 3/4 cu. yd. for footing, trench, and pit excavation that cannot be removed by rock excavating equipment equivalent to the following in size and performance ratings, without systematic drilling, ram hammering, ripping, or blasting, when permitted:
  - 1. Excavation of Footings, Trenches, and Pits: Late-model, track-mounted hydraulic excavator; equipped with a 42-inch- wide, maximum, short-tip-radius rock bucket; rated at not less than 138-hp flywheel power with bucket-curling force of not less than 28,700 lbf and stick-crowd force of not less than 18,400 lbf with extra-long reach boom; measured according to SAE J-1179.
  - 2. Bulk Excavation: Late-model, track-mounted loader; rated at not less than 230-hp flywheel power and developing a minimum of 47,992-lbf breakout force with a general-purpose bare bucket; measured according to SAE J-732.

- G. Structures: Buildings, footings, foundations, retaining walls, slabs, tanks, curbs, mechanical and electrical appurtenances, or other man-made stationary features constructed above or below the ground surface.
- H. Subbase Course: Aggregate layer placed between the subgrade and base course for hot-mix asphalt pavement, or aggregate layer placed between the subgrade and a cement concrete pavement or a cement concrete or hot-mix asphalt walk.
- I. Subgrade: Uppermost surface of an excavation or the top surface of a fill or backfill immediately below subbase, drainage fill, drainage course, or topsoil materials.
- J. Utilities: On-site underground pipes, conduits, ducts, and cables, as well as underground services within buildings.

## 1.2 SUBMITTALS

- A. Product Data: For each type of the following manufactured products required:
  - 1. Geotextiles.
  - 2. Controlled low-strength material, including design mixture.
  - 3. Warning tapes.
- B. Qualification Data: For qualified testing agency.
- C. Material Test Reports: For each on-site and borrow soil material proposed for fill and backfill as follows:
  - 1. Classification according to ASTM D 2487.
  - 2. Laboratory compaction curve according to ASTM D 1557.
  - 3. Submit test data with suppliers name, location of source and sieve analysis of material showing conformance with the specifications.
- D. Dewatering Plan
  - 1. Include a written plan for dewatering operations including control procedures to be adopted if dewatering problems arise.
- E. Preexcavation Photographs or Videotape: Show existing conditions of adjoining construction and site improvements, including finish surfaces, that might be misconstrued as damage caused by earth moving operations. Submit before earth moving begins.

## 1.3 QUALITY ASSURANCE

- A. Codes and Standards
  - 1. Comply with the provisions of the following codes and standards except where more stringent requirements are shown or specified.

- a. Local Regulations
  - b. New York State Department of Transportation (NYSDOT) Standard Specification dated January 1, 2019 and any subsequent addendums.
2. Excavations, trench depths and widths, sheeting, shoring, bracing, and cutback slopes to be determined by the Contractor and shall comply with standards set by OSHA, NYS Department of Labor, NYS Industrial Code and all other applicable safety standards.
- B. Geotechnical Testing Agency Qualifications: Qualified according to ASTM E 329 and ASTM D 3740 for testing indicated.

## 1.4 PROJECT CONDITIONS

- A. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during earth moving operations.
1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from the Authority and authorities having jurisdiction.
  2. Provide alternate routes around closed or obstructed traffic ways if required by the Authority or authorities having jurisdiction.
- B. Utility Locator Service: Notify Dig Safety New York at (800) 962-7962 and local utility agencies for area where Project is located before beginning earth moving operations.
- C. Do not commence earth moving operations until temporary erosion- and sedimentation-control measures, specified in the Contract Documents, are in place.

## PART 2 - PRODUCTS

### 2.1 SOIL MATERIALS

- A. General: Provide borrow soil materials when sufficient satisfactory soil materials are not available from excavations.
- B. Satisfactory Soils: Soil Classification Groups GW, GP, GM, SW, SP, and SM according to ASTM D 2487 , or a combination of these groups; free of rock or gravel larger than 3 inches in any dimension, debris, waste, frozen materials, vegetation, and other deleterious matter.
- C. Unsatisfactory Soils: Soil Classification Groups GC, SC, CL, ML, OL, CH, MH, OH, and PT according to ASTM D 2487 , or a combination of these groups.
1. Unsatisfactory soils also include satisfactory soils not maintained within 2 percent of optimum moisture content at time of compaction.
- D. Subbase Course: Suitable material conforming to NYSDOT Item 304.12, Type 2. Comply with the gradation and material requirements specified below:

SIEVE		PERCENT PASSING (%) BY WEIGHT
SIEVE SIZE	SIZE OPENING	
2 inch	50 mm	100
¼ inch	6.3 mm	25 – 60
No. 40	425 µm	5 – 40
No. 200	75 µm	0 - 10

1. Magnesium Sulfate Soundness Test: 20 percent maximum loss by weight after four test cycles.
2. Plasticity Index: The plasticity index of the material passing the No. 40 mesh sieve will not exceed 5.0.
3. Elongated Particles: Not more than 30 percent, by weight, of the particles retained on a ½ inch sieve will consist of flat or elongated particles. A flat or elongated particle is defined as one which as its greatest dimension more than three times its least dimension.

E. Select Granular Fill: Suitable material conforming to NYSDOT Item 203.07. Comply with the gradation and material requirements specified below:

SIEVE		PERCENT PASSING (%) BY WEIGHT
SIEVE SIZE	SIZE OPENING	
4"	100 mm	100
No. 40	425 um	0 - 70
No. 200	75 µm	0 - 15

1. Magnesium Sulfate Soundness Test: 30 percent maximum loss by weight.
2. RAP shall not be utilized.

F. Pipe Bedding Material: Suitable material conforming to NYSDOT Designation 733-15, Sand Backfill.

1. Comply with gradation and material requirements specified below:

SIEVE		PERCENT PASSING (%) BY WEIGHT
SIEVE SIZE	SIZE OPENING	
1/2 inch	12.7mm	100
1/4 inch	6.3 mm	90 -100
No. 200	75 µm	0 - 5

2. Provide materials substantially free of shale and soft, poor durability particles.

- G. Backfill for utility pipes and structures (non-paved areas): Satisfactory soils consisting of on-site or borrow soil materials.
  - 1. Provide satisfactory soil materials free of any organic or other deleterious materials.
- H. Backfill for utility pipes and structures in paved areas shall meet the requirements of NYSDOT Item 203.07, Select Granular Fill.
- I. Leveling bed for utility structures: Suitable material conforming to NYSDOT Item 304.14, Type 4. Comply with the gradation and material requirements specified below:

SIEVE		PERCENT PASSING (%) BY WEIGHT
SIEVE SIZE	SIZE OPENING	
2 inch	50 mm	100
¼ inch	6.3 mm	30 – 65
No. 40	425 µm	5 – 40
No. 200	75 µm	0 - 10

- 1. Magnesium Sulfate Soundness Test: 20 percent maximum loss by weight after four test cycles.
- 2. Plasticity Index: The plasticity index of the material passing the No. 40 mesh sieve will not exceed 5.0.
- 3. Elongated Particles: Not more than 30 percent, by weight, of the particles retained on a ½ inch sieve will consist of flat or elongated particles. A flat or elongated particle is defined as one which has its greatest dimension more than three times its least dimension.

**2.2 GEOTEXTILES**

- A. Geotextiles shall meet the requirements of NYSDOT Items listed below for each type. Material requirements for each classification will meet the default class of the approved materials list of NYSDOT (<http://nysdot.gov>). The following geotextiles and their classification are as follows:
  - 1. Separation Geotextile: Subbase separation, classification S, NYSDOT Item 207.21

**2.3 CONTROLLED LOW-STRENGTH MATERIAL**

- A. Controlled Low-Strength Material: Self-compacting, flowable concrete material produced from the following:
  - 1. Portland Cement: ASTM C 150, Type I / II.
  - 2. Fly Ash: ASTM C 618, Class C or F.
  - 3. Normal-Weight Aggregate: ASTM C 33, 3/4-inch nominal maximum aggregate size.
  - 4. Foaming Agent: ASTM C 869.
  - 5. Water: ASTM C 94.
  - 6. Air-Entraining Admixture: ASTM C 260.

- B. Produce conventional-weight, controlled low-strength material with 140-psi compressive strength when tested according to ASTM C 495.

## 2.4 ACCESSORIES

- A. Detectable Warning Tape: Acid- and alkali-resistant, polyethylene film warning tape manufactured for marking and identifying underground utilities, a minimum of 6 inches (150 mm) wide and 4 mils (0.1 mm) thick, continuously inscribed with a description of the utility, with metallic core encased in a protective jacket for corrosion protection, detectable by metal detector when tape is buried up to 30 inches (750 mm) deep; colored as follows:
  - 1. Red: Electric.
  - 2. Green: Sewer systems.

## PART 3 - EXECUTION

### 3.1 PREPARATION

- A. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earth moving operations.
- B. Protect and maintain erosion and sedimentation controls during earth moving operations.
- C. Protect subgrades and foundation soils from freezing temperatures and frost. Remove temporary protection before placing subsequent materials.

### 3.2 DEWATERING

- A. Prevent surface water and ground water from entering excavations, from ponding on prepared subgrades, and from flooding Project site and surrounding area.
- B. Protect subgrades from softening, undermining, washout, and damage by rain or water accumulation.
  - 1. Reroute surface water runoff away from excavated areas. Do not allow water to accumulate in excavations. Do not use excavated trenches as temporary drainage ditches.

### 3.3 EXPLOSIVES

- A. Explosives: Do not use explosives.

### 3.4 EXCAVATION, GENERAL

- A. Classified Excavation: Excavate to subgrade elevations. Material to be excavated will be classified as earth. If rock is encountered, do not excavate rock until it has been classified by the Authority.

1. Earth excavation includes excavating pavements and obstructions visible on surface; underground structures, utilities, and other items indicated to be removed; together with soil, boulders, and other materials not classified as rock or unauthorized excavation.
2. Rock excavation includes removal and disposal of rock. Remove rock to lines and subgrade elevations indicated to permit installation of permanent construction without exceeding the following dimensions:
  - a. 6 inches beneath pipe in trenches, and 24 inches wider than pipe.

### **3.5 EXCAVATION FOR STRUCTURES**

- A. Excavate to indicated elevations and dimensions within a tolerance of plus or minus 1-inch. If applicable, extend excavations a sufficient distance from structures for placing and removing concrete formwork, for installing services and other construction, and for inspections.
  1. Excavation for Underground Tanks, Basins, and Mechanical or Electrical Utility Structures: Excavate to elevations and dimensions indicated within a tolerance of plus or minus 1-inch. Do not disturb bottom of excavations intended as bearing surfaces.
- B. Report to the Authority, the elevations of ground water where evident during excavation within building areas.
- C. Protect excavated areas which are to support foundations or other work against freezing, by means of insulated blankets, hay or other approved methods. Where bearing areas have been subjected to frost penetration, remove affected material as directed by the Authority and pay for the cost of additional excavation, materials and construction necessary to rectify condition.

### **3.6 EXCAVATION FOR WALKS AND PAVEMENTS**

- A. Excavate surfaces under walks and pavements to indicated lines, cross sections, elevations, and subgrades.

### **3.7 EXCAVATION FOR UTILITY TRENCHES**

- A. Excavate trenches to indicated gradients, lines, depths, and elevations.
  1. Beyond building perimeter, excavate trenches to allow installation of top of pipe below frost line, unless otherwise indicated on the Contract Documents.
- B. Excavate trenches to uniform widths to provide the following clearance on each side of pipe or conduit. Excavate trench walls vertically from trench bottom to 12 inches higher than top of pipe or conduit unless otherwise indicated.
  1. Clearance: 12 inches each side of pipe or conduit.
- C. Trench Bottoms: Excavate trenches 6 inches deeper than bottom of pipe and conduit elevations to allow for bedding course. Hand-excavate deeper for bells of pipe.

1. Excavate trenches 6 inches deeper than elevation required in rock or other unyielding bearing material to allow for bedding course.

### **3.8 SUBGRADE INSPECTION**

- A. Notify the Authority when excavations have reached required subgrade.
- B. If the Authority determines that unsatisfactory soil is present, continue excavation and replace with compacted backfill or fill material as directed.
- C. Proof-roll subgrade below pavements with a non-vibratory roller to identify soft pockets and areas of excess yielding. Do not proof-roll wet or saturated subgrades.
  1. Completely proof-roll subgrade in one direction, repeating proof-rolling in direction perpendicular to first direction. Limit vehicle speed to 3 mph.
  2. Excavate soft spots, unsatisfactory soils, and areas of excessive pumping or rutting, as determined by the Authority, and replace with compacted backfill or fill as directed.
- D. Authorized additional excavation and replacement material will be paid for according to Contract provisions for changes in the Work.
- E. Reconstruct subgrades damaged by freezing temperatures, frost, rain, accumulated water, or construction activities, as directed by the Authority, without additional compensation.

### **3.9 UNAUTHORIZED EXCAVATION**

- A. Fill unauthorized excavation under foundations or wall footings by extending bottom elevation of concrete foundation or footing to excavation bottom, without altering top elevation. Lean concrete fill, with 28-day compressive strength of 2500 psi, may be used when approved by the Authority.
  1. Fill unauthorized excavations under other construction, pipe, or conduit as directed by the Authority.

### **3.10 STORAGE OF SOIL MATERIALS**

- A. Stockpile borrow soil materials and excavated satisfactory soil materials without intermixing. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
  1. Stockpile soil materials away from edge of excavations. Do not store within drip line of remaining trees.

### **3.11 BACKFILL**

- A. Place and compact backfill in excavations promptly, but not before completing the following:
  1. Construction below finish grade including, where applicable, subdrainage, dampproofing, waterproofing, and perimeter insulation.
  2. Surveying locations of underground utilities for Record Documents.
  3. Testing and inspecting underground utilities.

4. Removing concrete formwork.
5. Removing trash and debris.
6. Removing temporary shoring and bracing, and sheeting.
7. Installing permanent or temporary horizontal bracing on horizontally supported walls.

- B. Place backfill on subgrades free of mud, frost, snow, or ice.

### 3.12 FILLING AND BACKFILLING STRUCTURES

- A. Exterior Structures

1. Provide compacted leveling bed.
2. Place in layers of not more than 6 inches loose depth compacted with heavy equipment.
3. Grade smooth and even, free of voids, to required elevation. Provide final grades within a tolerance of ½ inch when tested with a 10-foot straightedge.

- B. Exterior Slabs on Grade

1. Provide subbase course to depths indicated and placed in layers of not more than 6-inch loose depth.
2. Compact with heavy equipment.

### 3.13 UTILITY TRENCH BACKFILL

- A. Place backfill on subgrades free of mud, frost, snow, or ice.

- B. Place and compact bedding course on trench bottoms and where indicated. Shape bedding course to provide continuous support for bells, joints, and barrels of pipes and for joints, fittings, and bodies of conduits.

- C. Trenches under Roadways: Provide 4-inch-thick, concrete-base slab support for piping or conduit less than 30 inches below surface of roadways. After installing and testing, completely encase piping or conduit in a minimum of 4 inches of concrete before backfilling or placing roadway subbase course. Concrete is specified in Division 03 Section "Cast-in-Place Concrete."

- D. Backfill voids with satisfactory soil while removing shoring and bracing.

- E. Place and compact initial backfill of bedding material to a height of 12 inches over the pipe or conduit.

1. Carefully compact initial backfill under pipe haunches and compact evenly up on both sides and along the full length of piping or conduit to avoid damage or displacement of piping or conduit. Coordinate backfilling with utilities testing.

- F. Controlled Low-Strength Material: Place initial backfill of controlled low-strength material to a height of 12 inches over the pipe or conduit. Coordinate backfilling with utilities testing.

- G. Place and compact final backfill using satisfactory soil (non-paved areas) or select granular fill (paved areas) to final subgrade elevation.

- H. Install warning tape directly above utilities, a maximum of 18 inches below finished grade, except 6 inches below subgrade under pavements and slabs.

### 3.14 SOIL FILL

- A. Plow, scarify, bench, or break up sloped surfaces steeper than 1 vertical to 4 horizontal so fill material will bond with existing material.
- B. Place and compact fill material in layers to required elevations as follows:
  - 1. Under grass and planted areas, use satisfactory soil material.
  - 2. Under walks and pavements, use select granular fill.
  - 3. Under exterior structures, use select granular fill.
- C. Place soil fill on subgrades free of mud, frost, snow, or ice.

### 3.15 SOIL MOISTURE CONTROL

- A. Uniformly moisten or aerate subgrade and each subsequent fill or backfill soil layer before compaction to within 2 percent of optimum moisture content.
  - 1. Do not place backfill or fill soil material on surfaces that are muddy, frozen, or contain frost or ice.
  - 2. Remove and replace, or scarify and air dry, otherwise satisfactory soil material that exceeds optimum moisture content by 2 percent and is too wet to compact to specified dry unit weight.

### 3.16 COMPACTION OF SOIL BACKFILLS AND FILLS

- A. Place backfill and fill soil materials in layers not more than 6 inches in loose depth for material compacted by heavy compaction equipment, and not more than 4 inches in loose depth for material compacted by hand-operated tampers.
- B. Place backfill and fill soil materials evenly on all sides of structures to required elevations, and uniformly along the full length of each structure.
- C. Compact soil materials to not less than the following percentages of maximum dry unit weight according to ASTM D 1557:
  - 1. Under structures, slabs and pavements, scarify and recompact top 12 inches of existing subgrade and each layer of backfill or fill soil material at 95 percent.
  - 2. Under walkways, scarify and recompact top 6 inches below subgrade and compact each layer of backfill or fill soil material at 92 percent.
  - 3. Under turf or unpaved areas, scarify and recompact top 6 inches below subgrade and compact each layer of backfill or fill soil material at 85 percent.
  - 4. For utility trenches, compact each layer of initial and final backfill soil material at 95 percent.

## 3.17 GRADING

- A. General: Uniformly grade areas to a smooth surface, free of irregular surface changes. Comply with compaction requirements and grade to cross sections, lines, and elevations indicated.
  - 1. Provide a smooth transition between adjacent existing grades and new grades.
  - 2. Cut out soft spots, fill low spots, and trim high spots to comply with required surface tolerances.
- B. Site Rough Grading: Slope grades to direct water away from buildings and to prevent ponding. Finish subgrades to required elevations within the following tolerances:
  - 1. Turf or Unpaved Areas: Plus or minus 1-inch.
  - 2. Walks: Plus or minus 1/2-inch.
  - 3. Pavements: Plus or minus 1/2-inch.
- C. Grading Inside Structure Lines: Finish subgrade to a tolerance of 1/2-inch when tested with a 10-foot straightedge.

## 3.18 SUBBASE COURSE UNDER PAVEMENTS AND WALKS

- A. Place subbase course on subgrades free of mud, frost, snow, or ice.
- B. On prepared subgrade, place subbase course under pavements and walks as follows:
  - 1. Install separation geotextile on prepared subgrade according to manufacturer's written instructions, overlapping sides and ends.
  - 2. Shape subbase course to required crown elevations and cross-slope grades.
  - 3. Place subbase course 6 inches or less in compacted thickness in a single layer.
  - 4. Place subbase course that exceeds 6 inches in compacted thickness in layers of equal thickness, with no compacted layer more than 6 inches thick or less than 3 inches thick.
  - 5. Compact subbase course at optimum moisture content to required grades, lines, cross sections, and thickness to not less than 95 percent of maximum dry unit weight according to ASTM D 1557.

## 3.19 FIELD QUALITY CONTROL

- A. Special Inspections: Contractor shall engage a qualified special inspector to perform the following special inspections:
  - 1. Determine prior to placement of fill that site has been prepared in compliance with requirements.
  - 2. Determine that fill material and maximum lift thickness comply with requirements.
  - 3. Determine, at the required frequency, that in-place density of compacted fill complies with requirements.
- B. Testing Agency: Contractor shall engage a qualified geotechnical engineering testing agency to perform tests and inspections.

- C. Allow testing agency to inspect and test subgrades and each fill or backfill layer. Proceed with subsequent earth moving only after test results for previously completed work comply with requirements.
- D. Testing agency will test compaction of soils in place according to ASTM D 1556, ASTM D 2167, ASTM D 2922, and ASTM D 2937, as applicable. Tests will be performed at the following locations and frequencies:
  - 1. Paved and Structure Areas: At subgrade and at each compacted fill and backfill layer, at least one test for every 2000 sq. ft. or less of paved area or structure, but in no case fewer than three tests.
  - 2. Trench Backfill: At each compacted initial and final backfill layer, at least one test for every 150-feet or less of trench length, but no fewer than two tests.
- E. When testing agency reports that subgrades, fills, or backfills have not achieved degree of compaction specified, scarify and moisten or aerate, or remove and replace soil materials to depth required; recompact and retest until specified compaction is obtained.

### 3.20 PROTECTION

- A. Protecting Graded Areas: Protect newly graded areas from traffic, freezing, and erosion. Keep free of trash and debris.
- B. Repair and reestablish grades to specified tolerances where completed or partially completed surfaces become eroded, rutted, settled, or where they lose compaction due to subsequent construction operations or weather conditions.
  - 1. Scarify or remove and replace soil material to depth as directed by the Authority; reshape and recompact.
- C. Where settling occurs before Project correction period elapses, remove finished surfacing, backfill with additional soil material, compact, and reconstruct surfacing.
  - 1. Restore appearance, quality, and condition of finished surfacing to match adjacent work, and eliminate evidence of restoration to greatest extent possible.

### 3.21 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Remove surplus satisfactory soil and waste materials, including unsatisfactory soil, trash, and debris, and legally dispose of them off the Authority's property.

**END OF SECTION**

**ITEM 627.0002 25**

**EXISTING CONDITIONS**

**1. DESCRIPTION:**

- 1.01 Furnish all labor, materials, equipment and services necessary to complete the work as indicated on the Contract Plans and the attached Specification Summary.
- 1.02 All work shall conform to the requirements specified in Part 1 – General, of the Sections listed.

**2. MATERIALS:**

- 2.01 The materials shall be as specified in Part 2 – Products, of the Sections listed.

**3. CONSTRUCTION DETAILS:**

- 3.01 The construction details shall be as specified on Part 3 – Execution, if the Sections listed.

**4. METHOD OF MEASUREMENT:**

- 4.01 This item shall be measured for payment on a lump sum basis for the work completed in accordance with the Contract Documents and as directed by the Engineer.

**5. BASIS OF PAYMENT:**

- 5.01 Payment for this item shall be made at the lump sum bid price bid. The lump sum price bid shall include cost of furnishing all labor, material, equipment and appliances necessary to complete the work as indicated on the Contract Plans and as specified herein in the Sections listed.
- 5.02 Detailed Estimate:
  - A. Before the first certificate of payment is issued for the work under this item, submit a detailed estimate of quantities and prices for all materials, labor, and other items included under this item, which shall aggregate the contract lump sum price bid for this item. Prepare the detailed estimate in the same sequence as the Sections listed.
  - B. The detailed estimate shall be supported by such evidence, including certified copies of subcontracts, as the Engineer may require.
  - C. The detailed estimate must be approved by the Engineer who may revise it as, in his/her reasonable judgment, is necessary to make the various item conform to their true values. The value of each certificate of payment will be based on the approved detailed estimate.
- 5.03 Monthly payments will be made for this item in proportion to the total amount of work completed.

**ITEM 627.0002 25**

**EXISTING CONDITIONS**

**1. SPECIFICATION SUMMARY**

1.01 This Item includes the following specifications:

A. Section 024100 DEMOLITION

1.02 This item shall include, but not be limited to, the following:

A. Submittal procedures, temporary facilities and controls, and all closeout procedures related to the demolition work of this project.

1.03 Items specifically not paid for under this item shall include, but not be limited to, the following:

A. Not Used

## SECTION 02 41 00

### DEMOLITION

#### PART 1 – GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Selective demolition and removal of site-related structures and piping in accordance with the Contract Drawings.

##### 1.2 RELATED SECTIONS

- A. Section 01 33 00 – Submittal Procedures
- B. Section 01 50 00 – Temporary Facilities and Controls
- C. Section 01 77 00 – Closeout Procedures
- D. Section 31 20 00 – Earth Moving

##### 1.3 DEFINITIONS

- A. Demolition – Dismantling, razing, destroying, or wrecking of any fixed building or structure or any part thereof.
- B. Modify – Provide all necessary material and labor to modify an existing item to the condition indicated or specified.
- C. Relocate – Remove, protect, clean and reinstall equipment, including electrical, instrumentation, and all ancillary components require to make the equipment fully functional, to the new location identified on the Drawings.
- D. Renovation – Altering a facility or one or more facility components in any way.
- E. Salvage/Salvageable – Remove and deliver, to the specified location(s), the equipment, building materials, or other items so identified to be saved from destruction, damage, or waste; such property is to remain that of the Owner. Unless otherwise specified, title to items identified for demolition shall revert to the Contractor.

##### 1.4 SUBMITTALS

- A. Submit under provisions of Section 01 33 00 – Submittal Procedures.
- B. Shop Drawings
  - 1. Submit proposed demolition plan together with any necessary diagrams and/or

drawings, taking into account Owner's continuing occupancy and sequence of construction of the project.

2. Demolition plan shall include the following:
  - a. Demolition, removal, and disposition of items identified in this Section and within the Contract Drawings.
  - b. Disposal locations of removed items.
  - c. Relocation of salvageable items.
  - d. Temporary storage of items to be reused.
  - e. Timelines and sequences of operations.
  - f. Location of temporary barricades, fences, and signs.

## 1.5 REGULATORY AND SAFETY REQUIREMENTS

- A. Comply with federal, state, and local hauling and disposal regulations. In addition to any applicable requirements, Contractor's safety requirements shall conform to ANSI A10.6.
- B. Conform to applicable codes for demolition of structures, protection of adjacent structures, dust control, runoff control, and disposal of materials.
- C. Obtain required permits from authorities.
- D. Notify affected utility companies before starting demolition operations and comply with their requirements.
- E. Do not close or obstruct roadways, sidewalks, hydrants, or parking areas without required permits.
- F. Conform to applicable regulatory procedures if a hazardous environmental condition is encountered at site or if hazardous material disposal is required.

## 1.6 USE OF EXPLOSIVES

- A. Use of explosives for demolition is not permitted.

## 1.7 HAZARDOUS ENVIRONMENTAL CONDITIONS

- A. If an unknown unforeseeable hazardous environmental condition is encountered at the site, or if Contractor or anyone for whom Contractor is responsible creates a hazardous environmental condition, immediately:
  1. Secure or otherwise isolate such condition;
  2. Stop all Work in connection with such condition and in any area affected thereby;
  3. Notify Owner and Engineer (and promptly thereafter confirm such notice in writing).
- B. Resume Work in connection with such condition or in any affected area only after Owner has obtained any required permits related thereto and delivered to Contractor a written

notice specifying under what special conditions Work may be resumed safely.

## **PART 2 - PRODUCTS**

### **2.1 FILL MATERIALS**

- A. Fill Material - As specified in Section(s), Section 31 20 00 – Earth Moving.

## **PART 3 – EXECUTION**

### **3.1 PREPARATION**

- A. Notify Owner and Engineer at least 48 hours in advance of intended start of demolition operations in each affected area.
- B. Provide, erect, and maintain temporary barriers, signs, and security devices where required or as ordered by Engineer.
- C. Erect and maintain temporary partitions and weatherproof closures to prevent spread of dust, odors, and noise in areas of continued Owner occupancy identified in Section 01 10 00 – Summary.
- D. Protect existing structures, equipment, appurtenances, architectural features, and materials which are not to be demolished. Prevent movement or settlement of adjacent structures.
- E. Protect existing site-related items such as pavements, walkways, parking areas, curbs, aprons, and landscaping features which are not to be demolished.
- F. Protect existing electrical; heating, ventilating, and air conditioning; and plumbing systems, including related components, which are not to be demolished.
- G. Mark location of underground utilities

### **3.2 EXISTING FACILITIES TO BE DEMOLISHED OR RENOVATED**

- A. Utilities and Related Equipment:
  - 1. Notify Owner or appropriate utilities to turn off affected services at least 48 hours before starting demolition or renovation activities.
  - 2. Remove existing utilities as indicated and terminate in a manner conforming to the nationally recognized code covering the specific utility and approve by the Owner.
  - 3. When utility lines are encountered that are not indicated on the Drawings, notify the Owner prior to further work in that area.
  - 4. Excavate and remove utility lines serving buildings to be demolished to a distance of 10 feet beyond the outside perimeter of the demolition.

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TAS 26-18A / D215090

Syracuse Division

Construct Municipal Sewer Connection at the  
Weedsport Maintenance Section & Toll Plaza at Milepost 304.19

5. For lines less than 8 inches in diameter, plug sewer lines with concrete to a minimum plug length of 2 feet to prevent groundwater infiltration. For lines 8 inches and larger, or for all pipes abandoned under a roadway, completely fill the abandoned line with flowable fill in accordance with Section 31 23 16 – Excavation
  6. Equipment, supports, anchors, concrete pads, and associated items.
  7. Piping, fittings, valves, hangers, concrete supports and associated items.
  8. Meters, gages, recording instruments, and other measuring devices.
  9. Disconnecting and capping of identified utilities.
  10. Remove designated buried sewer and storm drain piping systems, capping with concrete plugs those segments to be abandoned, and provide temporary capping of those segments to be reused
  11. Disconnect cap, and identify utilities within demolition areas
- B. Paving and Slabs - Provide neat saw cuts at limits of pavement removal as indicated.
- C. Masonry – Saw cut and remove masonry so as to prevent damage to surfaces to remain and to facilitate the installation of new Work. Where new masonry adjoins existing, the new Work shall abut or tie into the existing construction as indicated.
- D. Concrete – Saw concrete along straight lines to a depth of not less than 2 inches. Make each cut in wall perpendicular to the face and in alignment with the cut in the opposite face. Break out the remainder of the concrete provided that the broken area is concealed in the finished Work, and the remaining concrete is sound. At locations where the broken face cannot be concealed, grind smooth or saw cut entirely through the concrete. Where new concrete adjoins existing, the new Work shall abut or tie into the existing construction as indicated.
- E. Patching:
1. Where removals leave holes and damaged surfaces exposed in the finished Work, patch and repair to match adjacent finished surfaces as to texture and finish.
  2. Where new work is to be applied to existing surfaces, perform removals and patching in a manner to produce surfaces suitable for receiving new Work.
  3. Fill holes and depressions left because of removals in existing surfaces with an approved patching material, applied in accordance with the manufacturer's printed instructions.
- F. Electrical:
1. Cut off concealed or embedded conduit, boxes, or other materials a minimum of 3/4 inch below final finished surface.
  2. When removing designated equipment, conduit and wiring may require rework to maintain service to other equipment.
  3. Rework existing circuits, or provide temporary circuits as necessary during renovation to maintain service to existing lighting and equipment not scheduled to be renovated. Existing equipment and circuiting shown are based upon limited field surveys. Verify existing conditions, make all necessary adjustments, and record the Work on the Record Drawings. This shall include, but is not limited to, swapping and other adjustments to branch circuits and relocation of branch circuit breakers with

- panelboards as required to accomplish the finished Work.
4. Reuse of existing luminaires, devices, conduits, boxes, or equipment will be permitted only where specifically indicated.
  5. Raceways and Cabling:
    - a. Scheduled for retirement:
      - 1) Inaccessibly Concealed: Cut off and abandon in place.
      - 2) Exposed or Accessible: Remove.
    - b. Scheduled for future use:
      - 1) Cap/seal and tag
    - c. Schedule for relocation:
      - 1) Extend existing wiring or run new wiring from the source.
    - d. Where the existing raceway is concealed, the outlet box shall be cleaned, and a blank cover plate installed.
    - e. Where concealed raceway is uncovered, remove raceway or extend to new location as appropriate.
  6. Provide new typewritten panelboard circuit directory cards.

### 3.3 MISCELLANEOUS

- A. Break up and remove foundation walls, footings, etc., including any below-grade concrete slabs, to a point 2 feet below grade.
- B. Break up and remove concrete structures and tanks, including walls, piers, base slabs, cover slabs, etc.
- C. Empty and remove buried tanks, meter pits, and associated piping.

### 3.4 PROTECTION

- A. Dust and Debris Control:
  1. Prevent the spread of dust and debris to the occupied portions of the building and avoid the creation of a nuisance or hazard in the surrounding area. Do not use water if it results in hazardous or objectionable conditions such as, but not limited to, ice, flooding, or pollution.
  2. Vacuum and dust interior Work areas daily.
  3. Sweep pavements as often as necessary to control the spread of debris that may result in foreign object damage potential to vehicular traffic.
- B. Traffic Control Signs – Where pedestrian and driver safety are endangered in the area of removal Work, use traffic barricades with flashing lights.
- C. Existing Work:
  1. Survey the site and examine the Drawings and Specifications to determine the extent of the Work before beginning any demolition or renovation.
  2. Take necessary precautions to avoid damage to existing items scheduled to remain in place, to be reused, or to remain the property of the Owner. Any Contractor-damaged items shall be repaired or replaced as directed by the Owner.

3. Provide temporary weather protection during intervals between removal of existing exterior surfaces and installation of new to ensure that no water leakage or damage occurs to the structure or interior areas of existing buildings.
  4. Ensure that structural elements are not overloaded as a result of or during performance of the Work. Responsibility for additional structural elements or increasing the strength of existing structural elements as may be required as a result of any Work performed shall be that of the Contractor. Repairs, reinforcement, or structural replacement must have Owner approval.
  5. Do not overload pavements to remain.
- D. Weather Protection – For portions of the building scheduled to remain, protect the building interior, materials, and equipment at all times. Where removal of existing roofing is necessary to accomplish the Work, have materials and workmen ready to provide adequate and temporary covering of exposed areas so as to ensure effectiveness and to prevent loss.
- E. Trees – Protect trees within the Site that might be damaged during demolition and are indicated to be left in place using a 6-foot-high fence. The fence shall be securely erected a minimum of 5 feet from the trunk of individual trees or follow the outer perimeter of branches or clumps of trees. Any tree designated to remain that is damaged during the Work shall be replaced in kind, as approved by the Owner.
- F. Facilities:
1. Protect electrical and mechanical services and utilities. Where removal of existing utilities and pavement is specified or indicated, provide approved barricades, temporary covering of exposed areas, and temporary services or connections for electrical and mechanical utilities.
  2. Floors, roofs, walls, columns, pilasters, and other structural elements that are designed and constructed to stand without lateral support or shoring and are determined by the Contractor to be in stable condition, shall remain standing without additional bracing, shoring, or lateral support until demolished, unless directed otherwise by the Owner.
  3. Protect all facility elements not scheduled for demolition.
  4. Provide interior shoring, bracing, or support to prevent movement, settlement, or collapse of structures or elements to be demolished and adjacent facilities.
- G. Protection of Personnel:
1. During demolition, continuously evaluate the condition of the demolished structure and take immediate action to protect all personnel working in and around the demolition site.
  2. Provide temporary barricades and other forms of protection to protect Owner's personnel and the general public from injury due to demolition Work.
  3. Provide protective measures as required to provide free and safe passage of Owner's personnel and the general public to occupied portions of the structure.

### 3.5 BURNING

- A. The use of burning at the site for the disposal of refuse and debris will not be permitted.

### **3.6 RELOCATIONS**

- A. Perform the removal and reinstallation of relocated items as indicated with workmen skilled in the trades involved. Clean all items to be relocated prior to reinstallation, to the satisfaction of the Owner. Repair items to be relocated which are damaged or replace damaged items with new undamaged items as approved by the Owner.

### **3.7 BACKFILL**

- A. Demolition debris shall not be used as backfill material.

### **3.8 TITLE TO MATERIALS**

- A. All equipment will be discarded, or may be salvaged, by the Contractor unless specifically identified to remain the property of the Owner in the contract documents.

### **3.9 DISPOSITION OF MATERIAL**

- A. Do not remove equipment and materials without the approval of the Owner.
- B. Remove materials and equipment that are indicated and specified to be removed by Contractor and deliver to a location to be determined by the Owner.
- C. Remove salvaged items in a manner to prevent damage and pack or crate to protect the items from damage while in storage or during shipment. Properly identify containers as to contents.
- D. Repair or replace, at the discretion of the Owner, items damaged during removal or storage.
- E. The Owner will not be responsible for the condition or loss of, or damage to, property scheduled to become the Contractor's property after Owner's authorization to begin demolition. Materials and equipment shall not be viewed by prospective purchasers or sold on the Site.
- F. Owner will not be responsible for the condition or loss of, or damage to, such property after Owner's authorization to begin demolition.
- G. Store salvaged items as approved by the Owner or Inspector and remove them from Owner's property before completion of the Contract.

### **3.10 REUSE OF MATERIALS AND EQUIPMENT**

- A. Remove and store materials and equipment listed to be reused or relocated to prevent damage and reinstall as the Work progresses.

- B. Properly store and maintain equipment and materials in the same condition as when removed.
- C. Store equipment and material designated to be reused in a location designated by the Owner.
- D. Equipment and material designated to be reused shall be cleaned, serviced and checked for proper operability before being put back into service.
- E. The Owner shall determine condition of equipment and materials prior to removal.

### **3.11 UNSALVAGEABLE MATERIAL**

- A. Concrete, masonry, and other noncombustible materials, except concrete permitted to remain in place, shall be disposed of by the Contractor at a facility permitted to receive the waste by the appropriate state, federal, or local authority.
- B. Combustible material shall be disposed of off-Site.

### **3.12 CLEANUP**

- A. Debris and rubbish shall be removed and transported in a manner that prevents spillage on streets or adjacent areas. Local regulations regarding hauling and disposal shall apply.
- B. All materials removed from the sewer lines during cleaning operations shall be trapped and removed from the system at the downstream manhole of the section being cleaned. All materials shall be disposed of in compliance with all applicable laws and regulations and in a manner approved by Owner.
- C. Under no circumstances shall sewage or solids removed in the cleaning process be dumped onto streets or into ditches, catch basins, storm drains, sanitary sewer manholes, cleanouts, or dumps.

**END OF SECTION 02 41 00**

**NEW YORK STATE THRUWAY AUTHORITY**  
**DEPARTMENT OF ENGINEERING**  
**ITEMIZED PROPOSAL FOR**  
**WEEDSPORT MAINTENANCE – CONSTRUCT**  
**MUNICIPAL SEWER CONNECTION ON I-90**  
**AT**  
**MILEPOST 304.20**  
**IN THE**  
**SYRACUSE DIVISION**  
**OF THE**  
**NEW YORK STATE THRUWAY**  
**IN**  
**CAYUGA COUNTY**  
**WHICH CONSTITUTES CONTRACT NO. TAS 26-18A**

**The work proposed herein must be completed on or before June 30, 2027**

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To the New York State Thruway Authority:

In submitting this bid the undersigned declares that he is or they are the only person or persons interested in the said bid; that it is made without any connection with any person making another bid for the same contract; that the bid is in all respects fair and without collusion, fraud or mental reservation; and that no official of the New York State Thruway Authority, or any person in the employ of the New York State Thruway Authority is directly or indirectly interested in said bid or in the supplies of work to which it relates, or in any portion of the profits thereof.