

# Town of Lunenburg



## INVITATION FOR BIDS

FOR:

**PROPOSED BRIDGE REPLACEMENT  
BRIDGE NO. L-17-003 (C9X)  
FLAT HILL ROAD OVER CATACOOMAMUG BROOK**

**Town of Lunenburg  
Department of Public Works  
520 Chase Road  
Lunenburg, MA 01462**

**Released:**

April 8, 2026 – 10:00 a.m.

**Responses Due By:**

May 14, 2026 – 12:00 p.m.

**Contact Information:**

Julie Belliveau  
Assistant Town Manager  
(978) 582-4130 x150  
jbelliveau@lunenburgma.gov

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## LEGAL NOTICE

**Town of Lunenburg, MA  
Bridge No. L-17-003, Flat Hill Road  
Over Catacoonamug Brook  
Notice of Invitation to Bid**

The Town of Lunenburg, by and through the Town Manager, is requesting bids for the replacement of Bridge No. L-17-003. MassDOT prequalification of contractors with the class of work as Bridge - Culvert Construction for the project with an estimated value of \$1,195,040.00 will be required. The IFB will be available after **10:00 a.m. on April 8, 2026** in the Town Manager's Office at the Town Hall, 17 Main Street, 2<sup>nd</sup> floor, Lunenburg, MA 01462 or by emailing [jbelleveau@lunenburgma.gov](mailto:jbelleveau@lunenburgma.gov). Bids are due no later than **12:00 p.m. on May 14, 2026** in the Town Manager's Office, Town Hall, 17 Main Street, P.O. Box 135, Lunenburg, MA 01462. The contact person is Julie Belliveau, Assistant Town Manager, and can be reached at 978-582-4130 x150 or [jbelleveau@lunenburgma.gov](mailto:jbelleveau@lunenburgma.gov). The Town Manager is the awarding authority. The Town of Lunenburg reserves the right to reject any or all proposals, waive minor informalities, and to only award a contract if it is in the best interest of the Town to do so. The Town of Lunenburg is an equal opportunity employer.

**TOWN OF LUNENBURG  
INVITATION FOR BIDS (IFB)  
FOR  
Bridge No. L-17-003, Flat Hill Road  
Over Catacoonamug Brook  
  
BIDDING INSTRUCTIONS**

**SECTION 1.0 GENERAL INFORMATION ON BID PROCESS**

**1.1 General**

When submitting proposal, please identify the title as “Bridge No. L-17-003, Flat Hill Road Over Catacoonamug Brook Replacement” on the sealed bid submission to:

Julie Belliveau, Assistant Town Manager  
Town of Lunenburg  
17 Main Street, P.O. Box 135  
Lunenburg, MA 01462

- ✓ This project is subject to M.G.L. 30 §39M for Building Construction Contracts and is subject to prevailing wage rates.
- ✓ Complete Bids must contain:
  - Price Proposal signed by the official authorized to enter contracts with the Town. All related appendices therein (Non-Collusion Form, Tax Compliance Form, and Certificate of Authority Form), OSHA cards for Contractors staff, and 5% Bid Deposit must accompany the Price Proposal.
- ✓ Purchase of goods and services by the Town of Lunenburg are exempt from the payment of Federal Excise Taxes and Massachusetts Sales Tax, and any such taxes must not be included in any price computations.
- ✓ The Town reserves the right to reject any or all proposals, waive minor informalities, and accept the proposal deemed to be in the best interest of the Town.
- ✓ Please make note that the Town Hall hours of operation are Monday and Wednesday 8:00 a.m. until 4:00 p.m. and Tuesday and Thursday 8:00 a.m. until 6:00 p.m.
- ✓ Late proposals will not be considered. Modifications must be in writing and clearly labeled as such and submitted to the Town Manager prior to the date and hour of the proposal deadline.
- ✓ A proposal may be withdrawn by written request prior to the deadline.

Official copies of this IFB may be obtained from the Town Manager’s Office by requesting, via email, to [jbelleveau@lunenburgma.gov](mailto:jbelleveau@lunenburgma.gov) on and after April 8, 2026 at 10:00 a.m..

## 1.2 **Bid Schedule**

Key dates for this Request for Proposals are as follows:

- ✓ IFB issued by April 8, 2026 at 10:00 a.m.
- ✓ Deadline for submitting questions April 29, 2026 by 10:00 a.m.
- ✓ Proposals are due on May 14, 2026 by 12:00 p.m. to Town of Lunenburg, Attn: Julie Belliveau, 17 Main Street, P.O. Box 135, Lunenburg, MA 01462
- ✓ Anticipated contract award week June 1, 2026
- ✓ Anticipated date for services to commence week of June 22, 2026
- ✓ Project completion June 30, 2027

## 1.3 **Information for Bidders**

Premature Opening: The Town will not be responsible for the premature opening of any bid not properly identified, and any such bids will be rejected.

Rejection of Bids: Waiver of Technicalities: The Town reserves the exclusive right to reject any or all bids and waive minor technicalities to the extent allowed by law. Bids which are incomplete, conditional, not properly endorsed, or signed, or which are otherwise contrary to these instructions may be rejected.

Contract: The award and validity of any contract resulting from this Invitation for Bids is subject to the approval of the Town Manager, the availability of sufficient funds as determined by the Town Accountant and the submission to the Chief Procurement Officer of insurance and bond documents listed in a Notice of Award. The terms of any resulting contract will be valid for the 6 month duration of the project.

Responsibility: The bid for the work detailed in the purchase description must cover all contingencies, including labor, materials, transportation, and all others, necessary for delivery of the project required by the Town of Lunenburg, MA. These specifications require the performance of all things necessary or proper for or incidental to the services specified herein. All services mentioned in these specifications and all things not specified herein, but involved in carrying out their intent, and the complete and proper execution of the services are required by these specifications; and the contractor shall perform same as though they were specifically described and mentioned.

Title: For the delivery of any goods, supplies, or equipment, title in all products shall remain with the successful contractor until delivered or otherwise accepted by the Awarding Authority.

Equal Opportunity: The Town is an equal opportunity employer. All qualified bidders will receive consideration without regard to race, color, creed, religion, disability, sex or national origin.

Responsive Bidders: The Town of Lunenburg will consider only responsive bids from responsible Contractors for a contract award. A responsive bid is one which complies fully with all submission requirements stated in these bid/contract documents. A responsible Contractor is one who demonstrates the skill, ability, and integrity necessary to faithfully perform the work called for in this procurement, judged on the basis of information about the Contractor's experience, performance on recent and current projects and appropriate references.

Modifications prior to Bid Deadline: A bidder may correct, modify, or withdraw a proposal by written notice received in the Office of the Town Manager, 17 Main Street, Lunenburg, MA 01462 prior to the date and time set for opening proposals. After the bids are opened, a bidder may not change the price or any other provision of the bid in a manner prejudicial to the interest of the Town or to fair competition. The Town may waive minor informalities to all bidders and to correct them. If a mistake and the intended offer are clearly evident on the face of the proposal, the Town of Lunenburg may correct the mistake to reflect the intended correct offer and so notify the bidder in writing. The bidder may not withdraw a proposal if a mistake is clearly evident on the face of the proposal, but the intended correct offer is not similarly evident.

Contract Terms: Each bid submitted in response to these bid/contract documents is subject to all contract terms and conditions included herein, and any contract awarded will incorporate all of these contract terms.

Bidders Must Examine All Documents: All bidders are required to examine all documents included in these bid/contract documents or referred to herein. The Town of Lunenburg will not be responsible for errors, omissions, or changes for extra work arising from any failure by the proposer to familiarize itself with the bid/contract documents. Submission of a bid constitutes an acknowledgement that the bidder has examined the bid/contract documents, that the bidder is familiar with them, and the documents are adequate and that the bidder will produce the required results.

Questions: Questions on this IFB can be submitted in writing to the Town Manager's Office, via email, to [jbelliveau@lunenburgma.gov](mailto:jbelliveau@lunenburgma.gov) no later than April 29, 2026.

## **Contractor Requirements**

Evidence of the following requirements must be submitted to the Town prior to the award of a contract to the successful bidder:

Prior Experience: The Contractor, which will perform the substantive portion of the principal work described in the specifications, must have a documented record of reliable performance in the supply of the materials and services named above, and must submit appropriate references, including contract amounts, and names, and telephone numbers of contact officials. **Must be pre-qualified with the Massachusetts Department of Transportation.**

Bond: Contractor must supply a Labor and Material Bond in the amount of 50% of the total value of the bid price if the contract is more than \$50,000. The bond must be made out to Town of Lunenburg. The Contractor and Surety must sign each Bond. The Power of Attorney must have Surety's impressed seal or otherwise be an original. Certification of full force and effect in the General Power of Attorney must be dated. Any such bond must be issued by a surety company licensed by the Commonwealth's Division of Insurance, listed in the most recent United States Treasury Department Circular 570 - Surety Companies Acceptable on Federal Bonds, and acceptable to the Awarding Authority.

Indemnification: The successful contractor will be required to indemnify and hold harmless the Awarding Authority for all damage to life and property that may occur by the provision of liability and property damage insurance in the amount of One Million Dollars (\$1,000,000.00) combined single limit or equal, naming the Awarding Authority as an additional insured. Contractor shall, if it has employees, shall also produce evidence of coverage of Worker's Compensation Insurance as required by M.G.L. c 152. It is further-provided that the Contractor will hold the Owner harmless from any liability associated with the acts of the insured, its employees, any subcontractors and any others under its control. Any lack of insurance by Contractor's employees, any subcontractors and any others under its control will not release Contractor from its responsibility to indemnify Owner. All insurance policies shall include written notification to Owner of cancellation or restrictive amendment at least thirty days (30) prior to such action. Notice shall be made as hereinbefore provided.

Ownership of Supplies and Products: The Contractor shall retain title to any products, provisions, construction material and all other supplies provided by it as part of the Work until accepted by the Awarding Authority.

Prevailing Wages: The Contractor will be responsible for compliance with all applicable Federal and State wage rates. Pay requisitions must be submitted with certified payrolls in accordance with the Commonwealth of Massachusetts Division of Occupational Safety, Prevailing Wage Rates. If the one-year contract resulting from this solicitation is renewed by the Awarding Authority, Prevailing Wage Rates shall be adjusted per the Commonwealth of Massachusetts Divisions of Occupational Safety once each fiscal year, effective July 1<sup>st</sup>, for the second and third years of the contract.

Assignment: The successful Contractor will not be permitted to assign or underlet the contract, nor assign either legally or equitably, any monies hereunder, or its claim thereto, without the previous written consent of the Chief Procurement Officer.

Verbal Orders: Verbal orders are not binding on the Town and work done without a written, executed purchase order or contract amendments is at the sole risk of the Contractor.

Contract: A Form of Contract is included with this bid and it is attached hereto and incorporated herein by reference.

Termination: Any contract resulting from this solicitation may be terminated as described in the attached form of contract.

Amendments: Amendments are strictly regulated and must be signed by officer(s) who may legally bind the company.

Best Price: The “best price” for this solicitation will be lowest priced Grand Total.

## **SECTION 2.0 SCOPE OF WORK AND SPECIFICATIONS**

### **2.01 Scope of Work**

The work includes thThe work under this Contract shall consist of the following:

- Excavation and demolition of the approximately 14-foot diameter existing corrugated metal pipe
- Installation of the proposed precast concrete box culvert
- Installation of cast-in-place concrete wingwalls
- Control of water during demolition and construction of the bridge
- Excavation for the bridge installation
- Installation of filter fabric crushed stone, and gravel borrow for backfilling,
- Installation of the steel thrie beam bridge railing with handrail,
- Approach guardrail installation
- Installation of pavement over the culvert and the approaches
- Traffic management as shown on the Plans

### **2.02 Specifications**

Refer to the attached 38-page specifications document, Attachment B, provided separately.

### **2.03 Work Schedule**

Allowable work hours will be determined by the DPW Director.

Normal working hours are Monday through Friday, 7:00 AM to 3:00 PM. Nighttime work hours are Sunday through Thursday, 8:00 PM to 4:00 AM. The roadway at the bridge will be closed to vehicular and pedestrian traffic. Flat Hill Road from Sunset Lane to the bridge will be open to residents only. Flat Hill Road from Reservoir Road to the bridge will be open to residents only. Otherwise, no roadway shall be completely closed to traffic at any time during the performance of the work. Work may not proceed beyond the normal 8-hour day unless prior approval is obtained from the DPW Director for that day. Approval to work overtime will only be given when special conditions exist that warrant working overtime as determined by the DPW Director. No additional compensation will be made for scheduled work within a normal 8-hour day. Scheduled shifts beginning on a Sunday evening are considered part of a typical weekday 8-hour day and not subject to overtime rates.

### **2.04 Contractor Notification**

The Contractor is required to provide to the Town of Lunenburg the name(s) and telephone number(s) of a person or persons who can be contacted 24 hours a day for the Contract's duration.

## **2.05 Non-Response Penalties**

If the Contractor has not started scheduled work on site within 24 hours of the time expected, a non-response penalty will be assessed to the Contractor. Contract payments will be reduced by \$250.00 for each day or portion of a day that the work is delayed, excluding Saturdays, Sundays, and Holidays, unless the work was scheduled to be performed on one of these days.

The non-response penalty may be waived at the discretion of the DPW Director when it is determined that the Contractor acted in good faith and adequate notification was made (to the DPW Director) regarding the failure to respond.

## **2.06 Traffic Accommodation**

Traffic control devices shall comply with the relevant provisions of Subsection 850 of the *2022 Standard Specifications for Highways and Bridges*, the applicable sections of the *Manual on Uniform Traffic Control Devices for Streets and Highways* with the MA Amendments, the *Manual for Assessing Safety Hardware*, and the following:

The order of precedence for the document that governs the positioning, sizing, color(s), shape, design, and operation of temporary traffic control devices shall be as set forth below:

1. Details for a specific location that have been designed by the Contractor and approved by the DPW Director.
2. MassDOT's Work Zone Safety Temporary Traffic Control, Typical Details and Massachusetts Guidelines for MassDOT, Municipalities, Utilities, and Contractors.
3. MassDOT's Standard Details and Drawings for the Development of Temporary Traffic Control Plans (<https://www.mass.gov/files/documents/2017/10/24/tcp.pdf>).
4. Massachusetts Amendments to the MUTCD (<https://www.mass.gov/doc/massachusettsamendments-to-the-mutcd/download>).
5. Manual on Uniform Traffic Control Devices for Streets and Highways (<https://mutcd.fhwa.dot.gov/>).

Traffic police, when required, shall be located at a sufficient distance in advance of the work area, so that they can warn oncoming motorists of the work. The cost of traffic police shall be paid for by the Town of Lunenburg.

The Town of Lunenburg reserves the right to provide Roadway Flaggers, who are Town of Lunenburg employees, at the discretion of the DPW Director. The Contractor shall not be charged nor compensated for the use of Town of Lunenburg employee flaggers.

## **2.07 Work Reports**

For work performed under this Contract, the Contractor shall record the action in an electronic log, supplied by them, and verified by the DPW Director. Each log entry shall include the item numbers used, a breakdown of the type of Contract materials used and shall include detailed location information (street, cross street(s), direction, etc.) as appropriate. This information shall be

submitted by the Contractor as part of their required backup information for each request for payment and supplied to the DPW Director at no extra cost to the Town of Lunenburg.

## **2.08 Progress Payments**

The Contractor shall submit to the Town an itemized Application for Payment, supported to the extent required by the Town by invoices or other vouchers, showing payments for materials and labor, payments to Subcontractors and such other evidence of the Contractor's right to payment.

## **2.09 Notice to Contractors - Escalation:**

Price Adjustment For Hot Mix Asphalt (HMA) mixtures

It is the intention of the Town of Lunenburg to allow price adjustments in the award of this Contract as it is partially funded by the Massachusetts Chapter 90 Program. Municipalities are required to include price adjustment clauses for diesel fuel, gasoline, liquid asphalt, Portland cement concrete, structural steel and reinforcing steel in the bid documents of all construction contracts funded by the Chapter 90 Program.

This contract contains a Price Adjustment for Hot Mix Asphalt (HMA) Mixtures. The price adjustment will be based on the variance in price for the liquid asphalt component of Hot Mix Asphalt (HMA) Mixtures from the base price to the period price. It shall not include transportation or other charges. The base price of liquid asphalt on this project will be a fixed price based on the most current posted price for liquid asphalt as determined and published by the Massachusetts Department of Transportation.

The price adjustment, as herein provided, upwards and downwards, will be made at the end of each month period in which work was accomplished. The adjustment to cover the previous month will be determined by the variance between the period price of liquid asphalt and the base price of liquid asphalt. The asphalt content, for the purpose of the adjustment, will be 5.5% (0.055) for each ton of Hot Mix Asphalt (HMA) Mixture, regardless of the percentages established in the Job Mix Formula. The price adjustment will be a separate payment item. It will be determined by multiplying the number of tons of Hot Mix Asphalt (HMA) Mixture placed during each previous two-month periods by (0.055) times the variance in price between base price and period price of liquid asphalt.

The base price for liquid asphalt on this project is \$640.00 per ton.

## **2.10 Monthly Price Adjustment For Hot Mix Asphalt (HMA) Mixtures**

This provision applies to all projects using greater than 100 tons of hot mix asphalt (HMA) mixtures containing liquid asphalt cement as stipulated in the Notice to Contractors section of the bid documents. Price Adjustments will be based on the variance in price, for the liquid asphalt component only, between the Base Price and the Period Price. They shall not include transportation or other charges. Price Adjustments will occur on a monthly basis.

### **Base Price**

The Base Price of liquid asphalt on a project as listed in the Notice to Contractors section of the bid documents is a fixed price determined by the Department (MassDOT) at the time of the bid using the same method as the determination of the Period Price detailed below. The Base Price shall be used in all bids.

### **Period Price**

The Period Price is the price of liquid asphalt for each monthly period as determined by the Department using the average selling price per standard ton of PG64-28 paving grade (primary binder classification) asphalt, FOB manufacturer's terminal, as listed under the "East Coast Market - New England, Boston, Massachusetts area" section of the Poten & Partners, Inc. "Asphalt Weekly Monitor". This average selling price is listed in the issue having a publication date of the second Friday of the month and will be posted as the Period Price for that month. The Department will post this Period Price on its website at <https://www.mass.gov/service-details/massdot-current-contract-price-adjustments> within two (2) business days following its receipt of the relevant issue of the "Asphalt Weekly Monitor". Poten and Partners has granted the Department the right to publish this specific asphalt price information sourced from the Asphalt Weekly Monitor. This method of period price determination was formerly called the New Asphalt Period Price Method.

### **Price Adjustment Determination, Calculation and Payment**

The Contract Price of the HMA mixture will be paid under the respective item in the Contract. Price Adjustments, as herein provided, either upwards or downwards, will be made after the work has been performed using the monthly period price for the month during which the work was performed. Price Adjustments will be paid only if the variance from the Base Price is 5% or more for a monthly period. The complete adjustment will be paid in all cases with no deduction of the 5% from either upward or downward adjustments.

The Price Adjustment applies only to the actual virgin liquid asphalt content in the mixture placed on the job in accordance with the MassDOT Standard Specifications for Highways and Bridges, Division III, Section M3.11.03.

Price Adjustments will be separate payment items. The pay item numbers are 999.401 for a positive price adjustment (a payment) and 999.402 for a negative price adjustment (a deduction). Price Adjustments will be calculated using the following equation:

Price Adjustment = Tons of HMA Placed X Liquid Asphalt Content % X RAP Factor X (Period Price - Base Price)

No Price Adjustment will be allowed beyond the Completion Date of this Contract, unless there is an extension of time approved by the Town of Lunenburg.

### **2.11 Monthly Price Adjustment For Diesel Fuel And Gasoline**

This monthly fuel price adjustment is inserted in this contract because the national and worldwide energy situation has made the future cost of fuel unpredictable. This adjustment will provide for either additional compensation to the Contractor or repayment to the Town of Lunenburg, depending on an increase or decrease in the average price of diesel fuel or gasoline.

This adjustment will be based on fuel usage factors for various items of work developed by the Highway Research Board in Circular 158, dated July 1974. These factors will be multiplied by

the quantities of work done in each item during each monthly period and further multiplied by the variance in price from the Base Price to the Period Price.

The Base Price of Diesel Fuel and Gasoline will be the price as indicated in the Department’s web site (<https://www.mass.gov/service-details/massdot-current-contract-price-adjustments>) for the month in which the contract was bid, which includes State Tax.

The Period Price will be the average of prices charged to the State, including State Tax for the bulk purchases made during each month.

This adjustment will be affected only if the variance from the Base Price is 5% or more for a monthly period. The complete adjustment will be paid in all cases with no deduction of the 5% from either upward or downward adjustments.

No adjustment will be paid for work done beyond the extended completion date of any contract. Any adjustment (increase or decrease) to estimated quantities made to each item at the time of final payment will have the fuel price adjustment figured at the average period price for the entire term of the project for the difference of quantity.

The fuel price adjustment will apply only to the following items of work at the fuel factors shown:

ITEMS COVERED	FUEL FACTORS	
	Diesel	Gasoline
Excavation: and Borrow Work: Items 120, 120.1, 121, 123, 124, 125, 127, 129.3, 140, 140.1, 141, 142, 143, 144., 150, 150.1, 151 and 151.1 (Both Factors used)	0.29 Gallons / CY	0.15 Gallons / CY
Surfacing Work: All Items containing Hot Mix Asphalt	2.90 Gallons / Ton	Does Not Apply

**SECTION 3.0 SUBMISSION PACKAGE**

Please submit envelope with:

- ✓ Completed price proposal form
- ✓ Non-Collusion Form
- ✓ Tax Compliance Form
- ✓ Certificate of Authority Form
- ✓ 5% bid deposit
- ✓ OSHA cards for Contractor’s employees doing work for the Town

The Town reserves the right to contact any firm in order to clarify any aspect of a submitted bid. The overall goal of the evaluation process shall be to recommend award of the contract to the person or firm whose proposal best meets the requirements of the IFB and is the lowest, most responsive, responsible bidder.

## **SECTION 4.0 SELECTION AND CONTRACT AWARD PROCESS**

After the bids have been reviewed to determine if they meet the minimum quality requirements, the bid will be awarded to the lowest, responsible and responsive bidder.

The successful bidder will be required to obtain a 50% Payment Bond for this project.

The Town Manager is the awarding authority for this project.

# TOWN OF LUNENBURG<sup>1</sup>

SAMPLE CONTRACT # \_\_\_\_\_

STATE CONTRACT # (if applicable) \_\_\_\_\_

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**DATE:**

This Contract is entered into on, or as of, this date by and between the Town of Lunenburg, 17 Main Street, Lunenburg, MA 01462 (the "Town"), and

\_\_\_\_\_  
["Contractor"]

\_\_\_\_\_  
[Contact Name for Responsible Person]

\_\_\_\_\_  
[Address of the Contractor]

\_\_\_\_\_  
[Telephone Number]

\_\_\_\_\_  
[Email Address]

1. This is a Contract for the procurement of the following:

(Describe the work to be performed or attach agreed-upon scope of services)

2. The Contract price to be paid to the Contractor by the Town is:

3. Payment will be made as follows:

- 3.1 If any portion of the contract price is to be paid by a private citizen(s) no work shall be performed until a sum has been deposited with the Town Treasurer, upon an estimate made by the board, committee or officer having charge of the work, sufficient to cover the payment for the portion of the said work chargeable to the private citizen(s).

<sup>1</sup> Construction Under \$250,000.00

- 3.2 Fees and Reimbursable Costs combined shall not exceed \$ \_\_\_\_\_, as more fully set forth in the Contract Documents.
- 3.3 There shall be no further costs, fees or reimbursable charges due the Contractor under this Contract unless said fees and/or costs are so set forth in writing. The Town will not pay any surcharge or premium on top of the direct out of pocket expenses, if any. The Contractor shall be responsible for paying all other taxes and tariffs of any sort related to the Work.

4. Security:

- 4.1 In the event the contract price exceeds the sum of \$10,000.00, the Contractor must provide security in the form of a bond or otherwise, conditioned upon the faithful performance of this Contract.
- 4.2 If this Contract is to be used for either Building Construction subject to MGL c. 149 or Public Works Construction subject to MGL. c. 30, § 39M or MGL. c. 30B, § 5 the following chart and notes are provided for clarification on the minimum required security subject to the Town requiring additional security:

Contract Price	Performance Bond	Payment Bond	Bid Deposit
Under \$10,000	No	No	No
\$10,000 - \$25,000	No	No	No
\$25,001 - \$50,000	No	50% of total contract price <sup>2</sup>	No
\$50,001 - \$150,000 <sup>3</sup>	No	50% of total contract price	5% of total bid
Over \$150,000 <sup>4</sup>	100% of contract price	100% of contract price	5% of total bid

5. Definitions:

- 5.1 Acceptance: All Contracts require proper acceptance of the described goods or services by the Town. Proper acceptance shall be understood to include inspection of goods and certification of acceptable performance for services by authorized representatives of the Town to ensure that the goods or services are complete and are as specified in the Contract.
- 5.2 Contract Documents: All documents relative to the Contract including (where used) Request for Proposals and all attachments thereto, Instructions to Bidders, Proposal Form, General Conditions, Supplementary General Conditions, General Specifications, Other Specifications included in Project Manual, Drawings, all Addenda issued during the bidding

<sup>2</sup> As required by MGL c. 149, § 29 for Building Construction Contracts as well as Public Works (Non-Building) Construction Contracts (with Labor) subject to MGL c. 30, § 39M, or MGL c. 30B, § 5.

<sup>3</sup> This \$150,000 threshold is applicable to only Building Construction Contracts subject to MGL c. 149, but not to Public Works (Non-Building) Construction Contracts (with Labor) subject to MGL c. 30, § 39M, that are more than \$50,000. This row applies to all Public Works Contracts subject to MGL c. 30, § 39M, that are greater than \$50,000.

<sup>4</sup> The requirements of this row only apply to for Building Construction Contracts subject MGL c. 149, but not for Public Works (Non-Building) Construction Contracts (with Labor) subject to MGL c. 30, § 39M, or MGL c. 30B, § 5.

period and Contractor's Response to the Request for Proposal. The Contract Documents are complementary, and what is called for by any one shall be as binding as if called for by all, provided that, where the terms of the Contract and any document provided by the Contractor conflict, the terms of the Contract shall prevail. The purpose of the Contract Documents is to include all labor and materials, equipment and transportation necessary for the proper performance of the Contract.

- 5.3 The Contractor: The "other party" to any Contract with the Town. This term shall (as the sense and particular Contract so require) include Vendor, Contractor, Engineer, or other label used to identify the other party in the particular Contract. Use of the term "Contractor" shall be understood to refer to any other such label used.
- 5.4 Date of Substantial Performance: The date when the work is sufficiently complete, the services are performed, or the goods delivered, in accordance with Contract Documents, as modified by approved Amendments and Change Orders.
- 5.5 Goods: Goods, Supplies, Services or Materials.
- 5.6 Subcontractor: Those having a direct Contract with the Contractor. The term includes one who furnished material worked to a special design according to the Drawings or Specifications of this work, but does not include one who merely furnishes material not so worked.
- 5.7 Work: The services or materials contracted for, or both.

#### 6. Term of Contract and Time for Performance:

This Contract shall be fully performed by the Contractor in accordance with the provisions of the Contract Documents on or before \_\_\_\_\_, unless extended, in writing, at the sole discretion of the Town, and not subject to assent by the Contractor, and subject to the availability and appropriation of funds as certified by the Town Accountant. Time is of the essence for the completion of the Contract.

#### 7. Subject to Appropriation:

Notwithstanding anything in the Contract Documents to the contrary, any and all payments which the Town is required to make under this Contract shall be subject to appropriation or other availability of funds as certified by the Town Accountant. In the absence of appropriation or availability as certified herein, this Contract shall be immediately terminated without liability for damages, penalties or other charges to the Town. In the event this is a multi-year contract, this Contract shall be subject to annual appropriation and in the event funds are not so appropriated, this Contract shall terminate immediately without liability for damages, penalties or charges to the Town.

#### 8. Permits and Approvals:

Permits, Licenses, Approvals and all other legal or administrative prerequisites to its performance of the Contract shall be secured and paid for by the Contractor.

## 9. Termination and Default:

- 9.1 Without Cause. The Town may terminate this Contract on seven (7) calendar days' notice when in the Town's sole discretion it determines it is in the best interests of the Town to do so, by providing notice to the Contractor, which shall be in writing and shall be deemed delivered and received when given in person to the Contractor, or when received by fax, express mail, certified mail return receipt requested, regular mail postage prepaid or delivered by any other appropriate method evidencing actual receipt by the Contractor. Upon termination without cause, Contractor will be paid for services rendered to the date of termination.
- 9.2 For Cause. If the Contractor is determined by the Town to be in default of any term or condition of this Contract, the Town may terminate this Contract on seven (7) days' notice by providing notice to the Contractor, which shall be in writing and shall be deemed delivered and received when given in person to the Contractor, or when received by fax, express mail, certified mail return receipt requested, regular mail postage prepaid or delivered by any other appropriate method evidencing actual receipt by the Contractor.
- 9.3 Default. The following shall constitute events of a default under the Contract:
- (1) any material misrepresentation made by the Contractor to the Town; (2) any failure to perform any of its obligations under this Contract including, but not limited to the following: (i) failure to commence performance of this Contract at the time specified in this Contract due to a reason or circumstance within the Contractor's reasonable control, (ii) failure to perform this Contract with sufficient personnel and equipment or with sufficient material to ensure the completion of this Contract within the specified time due to a reason or circumstance within the Contractor's reasonable control, (iii) failure to perform this Contract in a manner reasonably satisfactory to the Town, (iv) failure to promptly re-perform within a reasonable time the services that were rejected by the Town as unsatisfactory, or erroneous, (v) discontinuance of the services for reasons not beyond the Contractor's reasonable control, (vi) failure to comply with a material term of this Contract, including, but not limited to, the provision of insurance and non-discrimination, (vii) any other acts specifically and expressly stated in this Contract as constituting a basis for termination of this Contract, and (viii) failure to comply with any and all requirements of state law and/or regulations, and Town bylaw and/or regulations.

## 10. Suspension or Delay

The Town may order the Contractor, in writing, to suspend, delay or interrupt all or any part of the Services without cause for such period of time as the Town may determine to be appropriate for its convenience. In the event of any such suspension, delay or interruption, the Contractor's time for performance may be equitably adjusted. No adjustment shall be made if the Contractor is or otherwise would have been responsible for the suspension, delay or interruption of the Services, or if another provision of this Contract is applied to render an equitable adjustment.

## 11. The Contractor's Breach and the Town's Remedies:

Failure of the Contractor to comply with any of the terms or conditions of this Contract shall be a material breach of this Contract, and the Town shall have all the rights and remedies provided in the Contract Documents, the right to cancel, terminate, or suspend the Contract in whole or in part, the right to maintain any and all actions at law or in equity or other proceedings with respect to a breach of this Contract, including "Damages" including but not limited to costs, attorney's fees or other damages resulting from said breach ("Damages") as well as specific performance, and the right to select among the remedies available to it by all of the above.

From any sums due to the Contractor for services, the Town may keep the whole or any part of the amount for expenses, losses and Damages incurred by the Town as a consequence of procuring services as a result of any failure, omission or mistake of the Contractor in providing services as provided in this Contract.

## 12. Statutory Compliance:

- 12.1 This Contract will be construed and governed by the provisions of applicable federal, state and local laws and regulations; and wherever any provision of the Contract or Contract Documents shall conflict with any provision or requirement of federal, state or local law or regulation, then the provisions of law and regulation shall control. Where applicable to the Contract, the provisions of the General Laws are incorporated by reference into this Contract, including, but not limited to, the following:

General Laws Chapter 30B – Procurement of Goods and Services.

General Laws Chapter 30, Section 39, *et seq.* – Public Works Contracts.

General Laws Chapter 149, Section 44A, *et seq.* – Public Buildings Contracts.

- 12.2 Wherever applicable law mandates the inclusion of any term and provision into a municipal contract, this Section shall be understood to import such term or provision into this Contract. To whatever extent any provision of this Contract shall be inconsistent with any law or regulation limiting the power or liability of cities and towns, such law or regulation shall control.
- 12.3 The Contractor shall comply with all Federal, State and local laws, rules, wage regulations, policies and orders applicable to the Work provided pursuant to this Contract, such provisions being incorporated herein by reference, and shall be responsible for obtaining all necessary licenses, permits, and approvals required for the supply of such Work.

The Contractor hereby agrees to indemnify and hold the Town harmless for and against any and all fines, penalties or monetary liabilities incurred by the Town as a result of the failure of the Contractor to comply with the previous sentence. If any discrepancy or inconsistency is discovered in the Drawings, Specifications or Contract for this work in violation of any such law, by-law, regulation, order or decree, it shall forthwith report the same in writing to the Town. The Contractor hereby agrees to, at all times, itself observe and comply with all such existing and future laws, by-laws, regulations, orders and decrees; and hereby agrees to protect and indemnify the Town, and its duly appointed agents against any claim or liability arising from or based on any violation whether by him or its agents, employees

or subcontractors of any such law, by-law, regulation or decree. The Town agrees to make reasonable effort to notify the Contractor of any duty arising out of this paragraph, but failure to make timely notice will not relieve the Contractor of any duty under this paragraph.

### 13. Conflict of Interest:

Both the Town and the Contractor acknowledge the provisions of the State Conflict of Interest Law (Chapter 268A of the Massachusetts General Laws), and this Contract expressly prohibits any activity which shall constitute a violation of that law. The Contractor shall be deemed to have investigated the application of M.G.L. c. 268A to the performance of this Contract; and by executing the Contract Documents the Contractor certifies to the Town that neither it nor its agents, employees, or subcontractors are thereby in violation of Chapter 268A.

### 14. Certification of Tax Compliance

This Contract must include a certification of tax compliance by the Contractor, as required by General Laws Chapter 62C, Section 49A (Requirement of Tax Compliance by All Contractors Providing Goods, Services, or Real Estate Space to the Commonwealth or Subdivision).

### 15. Non-Discrimination/Affirmative Action

The Contractor shall carry out the obligations of this Contract in compliance with all requirements imposed by or pursuant to federal, State and local ordinances, statutes, rules and regulations and policies prohibiting discrimination in employment, including but not limited to, Title VII of the Civil Rights Act of 1964; the Age Discrimination in Employment Act of 1967; Section 504 of the Rehabilitation Act of 1973 and Chapter 151B of the Massachusetts General Laws, and any other executive orders, rules, regulations, requirements and policies relating thereto enacted by the Commonwealth of Massachusetts and the Town as they may be amended from time to time. Contractor shall not discriminate against any qualified employee or applicant for employment because of race, color, national origin, ancestry, age, sex, religion, physical or mental handicap or sexual orientation.

15.1 As used in this section “affirmative action” means positive steps to ensure all qualified persons equal employment opportunity without regard to race, color, religion, sex or national origin at all stages of the employment process: recruitment, selection, placement, promotion, training, layoff and termination. It may include, but is not limited to, the following:

- (a) Inclusion in all solicitation and advertisements for employees of a statement that the Contractor is an “Equal Opportunity Employer”;
- (b) Placement of solicitations and advertisements for employees in media that reaches minority groups;
- (c) Notification in writing of all recruitment sources that the Contractor solicits the referral of applicants without regard to race, color, religion, sex or national origin;

- (d) Direct solicitation of the support of responsible and appropriate community, state and federal agencies to assist recruitment efforts;
- (e) Participation in, or establishment of, apprenticeship or training programs where outside programs are inadequate or unavailable to minority groups;
- (f) Modification of collective bargaining agreements to eliminate restrictive barriers established by dual lines of seniority, dual rates of pay or dual lines of promotion or progression which are based on race, color, religion, sex or national origin; and
- (g) Review selection, placement, promotion, training, layoff and termination procedures and requirements to ensure that they do not intentionally or unintentionally discriminate against qualified persons because of race, color, religion, sex or national origin.

15.2 The Contractor, if applicable, shall include in all compliance and progress reports submitted to the town a report which shall include: (a) A certificate stating that he or she is currently in compliance with the provisions of Chapter 152B and setting forth the Affirmative Action he or she is currently undertaking and will undertake during the contract period to provide equal employment opportunity for all qualified persons without regard to race, color, religion, sex or national origin; and (b) A statement in writing supporting information signed by an authorized officer or agent on behalf of any labor union or other agency which refers workers or provides or supervises apprenticeship or other training programs which the Contractor deals, to the effect that the union or other agency's practices and policies do not discriminate on the basis of race, color, religion, sex or national origin; provided, in the event that the union or other agency shall refuse to execute such a statement, the Contractor need only so certify in writing.

15.3 A copy of any such report as described above, shall be filed in the office of the Town Clerk and shall upon said filing become a public record.

15.4 The Contractor will take Affirmative Action to ensure that employees are solicited and employed, and that employees are treated during employment, without regard to race, color, religion, sex or national origin.

15.5 The Contractor will in all solicitation or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex or national origin.

15.6 In determining whether steps taken by the Contractor constitute Affirmative Action, the Town shall take into account the relevant characteristics of the Contractor including, but not limited to, the number of employees and the location of the principal and branch offices.

16. Assignment:

The Contractor shall not assign, sublet or otherwise transfer this Contract, in whole or in part, without the prior written consent of the Town, and shall not assign any of the moneys payable under this Contract, except by and with the written consent of the Town.

17. Condition of Enforceability Against the Town:

This Contract is only binding upon, and enforceable against, the Town if: (1) the Contract is signed by a majority of the Select Board; and (2) endorsed with approval by the Town Accountant as to appropriation or availability of funds; and (3) endorsed with approval by the Town Counsel as to form.

18. Corporate Contractor:

If the Contractor is a corporation, it shall endorse upon this Contract (or attach hereto) its Clerk's Certificate certifying the corporate capacity and authority of the party signing this Contract for the corporation. Such certificate shall be accompanied by a letter or other instrument stating that such authority continues in full force and effect as of the date the Contract is executed by the Contractor. This Contract shall not be enforceable against the Town unless and until the Contractor complies with this section.

The Contractor, if a foreign corporation, shall file with the Commissioner of Corporations a Power of Attorney and duly authenticated copies of its Charter or Certificate of Incorporation; and said Contractor shall comply with all the laws of the Commonwealth of Massachusetts.

19. Contractor's Personnel:

The Contractor shall utilize only its employees and shall not utilize any third-party contractors without prior written approval of the Town.

20. Liability of Public Officials:

To the full extent permitted by law, no official, employee, agent or representative of the Town shall be individually or personally liable on any obligation of the Town under this Contract.

21. Indemnification:

The Contractor hereby agrees to indemnify, defend and save harmless the Town, the Town's officers, agents and employees, from and against any and all damages, liabilities, actions, suits, proceedings, claims, demands, losses, costs, expenses, recoveries and judgments of every nature and description (including attorneys' fees) that may arise in whole or in part out of or in connection with the work being performed or to be performed, or out of any act or omission by the Contractor, its employees, agents, subcontractors, material men, and anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by any party indemnified hereunder. The Contractor hereby agrees to reimburse the Town for damage to its property caused by the Contractor, its employees, agents,

subcontractors or material men, and anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, including damages caused by his, its or their use of faulty, defective, or unsuitable material or equipment, unless the damage is caused by the Town's gross negligence or willful misconduct.

21.1 The Contractor hereby agrees to indemnify and hold harmless the Town, including the agents, employees and representatives of either, from and against all claims, damages, losses and expenses, including attorney's fees, arising out of or resulting from the performance of the work, provided that any such claim, damage, loss or expense (a) is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property including the loss of use resulting therefrom and (b) is caused in whole or in part by any negligent act or omission of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder.

**21.2 The Contractor shall be responsible for all damage or injury to property of any character during the prosecution of the work resulting from any act, omission, neglect, or misconduct in the manner or method of executing the work or due to the non-execution of the work or at any time due to defective work or materials.**

21.3 In any and all claims against the town or any of their agents or employees by any employee of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation under this paragraph shall not be limited in anyway by any limitation on the amount or type of damages, compensation or benefits payable by or for the Contractor or any Subcontractor under workmen's Compensation Acts, disability benefit acts or other employee benefit acts.

21.4 The Contractor hereby assumes the entire responsibility and liability for any and all injury to or death of any or all persons, including the Contractor's employees, and for any and all damage to property caused by, resulting from or arising in whole or in part out of any act, omission, or neglect on the part of the Contractor or of any Subcontractor or of anyone directly or indirectly employed by any of them, or of anyone for whose acts any of them may be liable in connection with operations under the Contract.

21.5 The Town agrees to make reasonable effort to notify the Contractor of any duty arising out of this paragraph, but failure to make timely notice will not relieve the Contractor of any duty under this paragraph.

The foregoing provisions shall not be deemed to be released, waived, limit or modified in any respect by reason of any surety or insurance provided by the Contractor under the Contract.

## 22. Insurance

### 22.1 Workers Compensation Insurance:

The Contractor shall provide by insurance for the payment of compensation and the furnishing of other benefits under Chapter 152 of the General Laws of Massachusetts (The Worker's Compensation Act) to all employees of the Contractor who are subject to the provisions of Chapter 152 of the General Laws of Massachusetts.

Failure to provide and continue in force such insurance during the period of this Contract shall be a material breach of this Contract, shall operate as an immediate termination thereof, and Contractor hereby agrees to indemnify the Town for all losses, claims, and actions resulting from the failure to provide the insurance required by this Article. The Town agrees to make reasonable effort to notify the Contractor of any duty arising out of this paragraph, but failure to make timely notice will not relieve the Contractor of any duty under this paragraph.

The Contractor shall furnish to the Town a certificate evidencing such insurance prior to the execution of this Contract before the same shall be binding on the parties thereto, except if specifically waived by the Town.

### 22.2 Professional Liability Insurance

Liability of \$1 million per claim and \$3 million aggregate.

Failure to provide and continue in force such insurance during the period of this Contract shall be a material breach of this Contract, shall operate as an immediate termination thereof, and Contractor hereby agrees to indemnify the Town for all losses, claims, and actions resulting from the failure to provide the insurance required by this Article. The Town agrees to make reasonable effort to notify the Contractor of any duty arising out of this paragraph, but failure to make timely notice will not relieve the Contractor of any duty under this paragraph.

### 22.3 Other Insurance Requirements

- a. Comprehensive commercial general liability insurance with limits of at least \$1 Million per occurrence and \$3 Million annual aggregate for property damage and \$1 Million per person and \$3 Million per occurrence for bodily injury, which shall include the Town as an additional insured, and which shall cover bodily injury, sickness or disease, or death of any person including employees and those persons other than the Contractor's employees, and claims insured by usual personal liability coverage, death, or property damage arising out of the Work including injury or destruction of tangible property, including loss of use resulting therefrom.
- b. Motor vehicle insurance for any motor vehicles used in performing the Work, with limits of at least \$500,000 per person, and \$1 Million per accident.

- c. The intent of the Specifications regarding insurance is to specify minimum coverage and minimum limits of liability acceptable under the Contract. However, it shall be the Contractor's responsibility to purchase and maintain insurance of such character and in such amounts as will adequately protect it and the Town from and against all claims, damages, losses and expenses resulting from exposure to any casualty liability in the performance of the work, including and not limited to Professional liability insurance where applicable.
- d. All policies shall identify the Town as an additional insured (except Workers' Compensation and Professional Liability). The Contractor shall notify the Town immediately upon the cancellation or amendment to any policy. Renewal Certificates shall be filed with the Town at least ten (10) days prior to the expiration of the required policies. Certificates evidencing all such coverage shall be provided to the Town upon the execution of this Contract, and upon the renewal of any such coverage. Each such certificate shall specifically refer to this Contract and shall state that such insurance is as required by this Contract. **Failure to provide the notices required in this Section or to continue in force such insurance shall be a material breach of this Contract and shall be grounds for immediate termination.** Said insurance shall include: Workers Compensation/Employers' Liability Insurance, Business Automobile Liability Insurance, and Commercial General Liability Insurance (CGL). The CGL policy shall include coverage for liability arising from premises, operations, independent Contractors, personal injury, contractual liability. All Certificates of Insurance shall be on the "MIIA" or "ACORD" Certificate of Insurance form, shall contain true transcripts from the policies, authenticated by the proper officer of the Insurer, evidencing in particular those insured, the extent of coverage, the location and operations to which the insurance applies, the expiration date and the above-mentioned notice clauses. All insurance shall be written on an occurrence basis. Coverage shall be maintained without interruption from date of the Contract until date of final payment and termination of any coverage required to be maintained after payment.
- e. The Contractor shall obtain and maintain during the term of this Contract the insurance coverage in companies licensed to do business in the Commonwealth of Massachusetts and acceptable to the Town.

### 23. Documents, Materials, Etc.

Any materials, reports, information, data, etc. given to or prepared or assembled by the Contractor under this Contract are to be kept confidential and shall not be made available to any individual or organization by the Contractor (except agents, servants, or employees of the Contractor) without the prior written approval of the Town, except as otherwise required by law. The Contractor shall comply with the provisions Chapter 66A of the General Laws of Massachusetts as it relates to public documents, and all other state and federal laws and regulations relating to confidentiality, security, privacy and use of confidential data.

Any materials produced in whole or in part under this Contract shall not be subject to copyright, except by the Town, in the United States or any other country. The Town shall have unrestricted authority to, without payment of any royalty, commission, or additional fee of any type or nature, publicly disclose, reproduce, distribute and otherwise use, and authorize others to use, in whole or in part, any reports, data or other materials prepared under this Contract.

All data, reports, programs, software, equipment, furnishings, and any other documentation or product paid for by the Town shall vest in the Town at the termination of this Contract. The Contractor shall at all times, during or after termination of this Contract, obtain the prior written approval of the Town before making any statement bearing on the work performed or data collected under this Contract to the press or issuing any material for publication through any medium.

#### 24. No Employment

The Contractor acknowledges and agrees that it is acting as an independent Contractor for all services rendered pursuant to this Contract, and neither the Contractor, nor its employees, agents, servants nor any person for whose conduct the Contractor is responsible shall be considered an employee or agent of the Town for any purpose and shall not file any claim or bring any action for any worker's compensation unemployment benefits and compensation for which they may otherwise be eligible as a Town employee as a result of work performed pursuant to the terms of this Contract.

#### 25. Audit, Inspection and Recordkeeping

At any time during normal business hours, and as often as the Town may deem it reasonably necessary, there shall be available in the office of the Contractor for the purpose of audit, examination, and/or to make excerpts or transcript all records, contracts, invoices, materials, payrolls, records of personnel, conditions of employment and other data relating to all matters covered by this Contract.

#### 26. Payment

The Town agrees to make all reasonable efforts to pay to the Contractor the sum set forth in the Contractor's bid or proposal within thirty (30) days of receipt of an invoice detailing the work completed and acceptance from the Town of the work completed.

#### 27. Waiver and Amendment

Amendments, or waivers of any additional term, condition, covenant, duty or obligation contained in this Contract may be made only by written amendment executed by all signatories to the original Contract, prior to the effective date of the amendment.

To the extent allowed by law, any conditions, duties, and obligations contained in this Contract may be waived only by written agreement by both parties.

Forbearance or indulgence in any form or manner by a party shall not be construed as a waiver, nor in any manner limit the legal or equitable remedies available to that party. No waiver by either

party of any default or breach shall constitute a waiver of any subsequent default or breach of a similar or different matter.

### 28. Severability

If any term or condition of this Contract or any application thereof shall to any extent be held invalid, illegal or unenforceable by a court of competent jurisdiction, the validity, legality, and enforceability of the remaining terms and conditions of this Contract shall not be deemed affected thereby unless one or both parties would be substantially or materially prejudiced.

### 29. Forum and Choice of Law

This Contract and any performance herein shall be governed by and be construed in accordance with the laws of the Commonwealth of Massachusetts. Any and all proceedings or actions relating to subject matter herein shall be brought and maintained in the courts of the Commonwealth of Massachusetts or the federal district court sitting in the Commonwealth of Massachusetts, which shall have exclusive jurisdiction thereof. This paragraph shall not be construed to limit any other legal rights of the parties.

### 30. Notices

Any notice permitted or required under the provisions of this Contract to be given or served by either of the parties hereto upon the other party hereto shall be in writing and signed in the name or on the behalf of the party giving or serving the same. Notice shall be deemed to have been received at the time of actual service or three (3) business days after the date of a certified or registered mailing properly addressed. Notice to the Contractor shall be deemed sufficient if sent to the address set forth on page 1 or furnished from time to time in writing hereafter.

### 31. Binding on Successors:

This Contract is binding upon the parties hereto, their successors, assigns and legal representatives (and where not corporate, the heirs and estate of the Contractor). Neither the Town nor the Contractor shall assign or transfer any interest in the Contract without the written consent of the other.

### 32. Entire Agreement:

This Contract, including all documents incorporated herein by reference, constitutes the entire integrated agreement between the parties with respect to the matters described. This Contract supersedes all prior agreements, negotiations and representations, either written or oral, and it shall not be modified or amended except by a written document executed by the parties hereto.

### 33. Counterparts:

The parties may execute this Contract in one or more counterparts, each of which is an original, and all of which constitute only one agreement between the parties.

34. Supplemental Conditions:

The foregoing provisions apply to all contracts to which the Town shall be a party.

If this Contract is for Construction, the following provisions will apply:

See SUPPLEMENT C attached hereto.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]



**BOTH CERTIFICATIONS ON THIS PAGE MUST BE EXECUTED**

**CERTIFICATION OF GOOD FAITH**

The undersigned certifies under pains and penalties of perjury that this contract has been obtained in good faith and without collusion or fraud with any other person. As used in this certification, the word “person” shall mean any natural person, business, partnership, corporation, union, committee, club, or other organization, entity, or group of individuals.

The Contractor by:

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

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

\_\_\_\_\_  
Title/Authority

**CERTIFICATE OF STATE TAX COMPLIANCE**

Pursuant to Chapter 62C, Section 49A of the Massachusetts General Laws,

\_\_\_\_\_ [*Print name of authorized signatory*], the authorized signatory for \_\_\_\_\_ [*Print company name*], (“Contractor”) whose principal place of business is at \_\_\_\_\_, \_\_\_\_\_ [*Print address of principal place of business*], does hereby certify under the pains and penalties of perjury that Contractor has paid all Massachusetts taxes and has complied with all laws of the Commonwealth of Massachusetts relating to taxes, reporting of employees and contractors, and withholding and remitting child support.

The Contractor by:

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

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

\_\_\_\_\_  
Title/Authority

\_\_\_\_\_  
Federal Tax ID Number or Social Security Number

**BOTH CERTIFICATIONS ON THIS PAGE MUST BE EXECUTED**

**EXAMPLE CLERK'S CERTIFICATE**

\_\_\_\_\_  
Action of Shareholders  
Written Consent

(Date)

The undersigned, being the Shareholders of \_\_\_\_\_, a Massachusetts Corporation (the "Corporation") entitled to vote on the action, hereby consent to the adoption of the following votes:

VOTED: That the [President and/or the Vice President or named individual], each of them acting singly is, authorized to execute any and all Contract Documents and to enter into and negotiate the terms of all contracts and to accomplish same and to execute any and all documents, instruments, and agreements in order to effectuate the transaction and that said transaction shall be valid, binding, effective, and legally enforceable.

VOTED: That the officers are, and each of them acting singly is, authorized, from time to time, in the name and on behalf of the Corporation to take or cause to be taken all such action(s) as s/he or they, as the case may be, deem necessary, appropriate or advisable to effect the foregoing votes, as may be shown by the officer or officers execution or performance which shall be conclusive evidence that the same is authorized by the directors of this Corporation.

VOTED: That the officers are, and each of them acting singly is, authorized, from time to time, in the name and on behalf of this Corporation, under its corporate seal, if desired, attested by an appropriate officer, if desired, to execute, make oath to, acknowledge, deliver and file any and all of the agreements, instruments, certificates and documents referred to or related to the foregoing votes.

VOTED: That the officers are, and each of them acting singly is, authorized, from time to time and on behalf of this Corporation, under its corporate seal, if desired, to execute, acknowledge and deliver any and all agreements, instruments, certificates and documents referred to or related to the foregoing votes, with such changes as the officer or officers so acting may deem necessary or desirable, and the signature of such officer or officers to be conclusive evidence that the same is authorized by the directors of this Corporation.

Clerk of Corporation Certificate

I, \_\_\_\_\_ the Clerk of the foregoing corporation, do hereby certify that the above vote was taken at a duly called meeting of the shareholders of the Corporation on \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
Clerk of Corporation  
SEAL

# **ATTACHMENT A**

## TECHNICAL SPECIFICATIONS

### TOWN OF LUNENBURG BRIDGE NO. L-17-003, FLAT HILL ROAD OVER CATACONAMUG BROOK

#### SPECIAL PROVISIONS TO THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION – HIGHWAY DIVISION STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES

#### DIVISION II

All work under this contract shall be done in conformance with the *Standard Specifications for Highways and Bridges dated 2023 and the 2023 Supplemental Specifications dated September 30, 2023*; the *October 2017 Construction Standard Details*, the *1990 Standard Drawings for Signs and Supports*; The *2015 Overhead Signal Structure and Foundation Standard Drawings*, the *2009 Manual on Uniform Traffic Control Devices (MUTCD) with Massachusetts Amendments and the Standard Municipal Traffic Code*; the *1968 Standard Drawings for Traffic Signals and Highway Lighting*; the latest edition of *American Standard for Nursery Stock*; the Plans and these Special Provisions.

The work includes the complete replacement of the existing deteriorated corrugated steel pipe with a proposed precast concrete 4-sided box culvert. The work shall include the demolition of the approximately 14-foot diameter existing pipe, the installation of the proposed culvert and wingwalls, the control of water during demolition and construction, bridge excavation, installation of filter fabric, crushed stone, gravel borrow for backfilling, steel thrie beam bridge railing with handrail, approach guardrail, and paving over the culvert and the approaches. Traffic management required to perform the proposed work shall be as shown on the Plans.

Payment for materials or work shown on the Plans or as being part of the culvert replacement which may be incidental to its construction and are not specifically included for payment under the Contract shall be considered incidental to the work performed.

The Plans consist of 8 bridge construction drawing sheets that were reviewed and approved by MassDOT on March 9, 2022. Where used within the contract documents, the terms “Department”, “Municipality”, and “Town” shall be taken to mean the Town of Lunenburg. The term “Engineer” shall be taken to mean the authorized representative or Project Manager for the Town of Lunenburg.

For the work specified under this Contract, the Contractor or Subcontractor(s) shall be prequalified by the Massachusetts Department of Transportation Highway Division (MassDOT) for the following classes of work:

“Bridge-Culverts”

## **GENERAL REQUIREMENTS FOR DEMOLITION AND WORK INVOLVING PAINTED STEEL**

Demolition and work involving painted steel shall conform to the requirements of Section 961.

### **Work Involving Painted Steel**

Hazardous materials shall be removed in the immediate area of any intended welding, heating, saw cutting or burning of steel. Hazardous material removal is required to allow the demolition of structural steel, railings, drainage systems, utility supports, steel lamp posts, etc.

The Contractor shall assume that the coatings on the steel contain lead (Pb), unless otherwise determined by testing. The Contractor shall certify in writing to the Engineer the results of all testing, and shall also certify that any lead (Pb) coated steel removed from the project was not reused or buried, but was sent to a scrap metal recycling facility.

Implement and maintain programs and procedures, which comply with the requirements of this specification and all applicable standards and regulations. Comply with all applicable regulations even if the regulation is not specifically referenced herein. If a state or local regulation is more restrictive than the regulation of this specification, follow the more restrictive requirements.

This requirement is intended only for the demolition and preparation prior to repair and does not include provisions for recoating of steel.

### **Environmental**

All applicable portions of Sections 961.65 “Worker Protection” and 961.66 “Environmental Protection and Monitoring” shall be followed when performing this work.

During chemical stripping a hand washing facility may be used in lieu of a decontamination/changing facility.

Hazardous material shall be collected during the disassembly and disposed of as outlined in Section 961.68 “Handling of Hazardous Waste and Reporting Release Programs”.

The applicable submittals shall be according to Section 961.69 “Submittals”.

### **Cleaning/Removal**

#### **Cutting Or Burning Of Steel**

All surfaces to be welded, heated, saw cut or burned shall be cleaned so as to remove all contaminants and/or hazardous materials, which could be discharged to the environment as a function of the subsequent operations.

Lead paint shall be removed in its entirety in an area prescribed by a 6 inch (15 cm) minimum offset from the required work. The paint removal operation may be dry abrasive blasting, wet abrasive blasting or chemical stripping.

Proper level of containment shall be used when performing this work in accordance with Section 961.67 "Containment". Full containment is not required during chemical stripping operation however; the Contractor shall install proper shielding and/or tarpaulins under the chemical stripping operations in order to catch all debris generated during this procedure. A cleaned area must be inspected and approved before the demolition operations are started.

During cleaning operations the Contractor shall be required to furnish and erect temporary floodlights illuminating the steel surface at a minimum of 30-foot candles. This lighting shall be used in areas where there is insufficient lighting for proper cleaning operations and inspection. The Contractor shall supply electrical power.

The Contractor shall provide support for interim and final inspection of the bridge during cleaning operations. This support shall include the necessary traffic controls and safe access to the work.

### **Mechanical Disassembly Of Steel**

All surfaces to be mechanically disassembled by shear cutting or removing bolts or rivets shall not require deleading. When shear cutting or removing bolts or rivets, the Contractor shall not use any method that will cause dust and/or particles to be emitted and/or dispersed into the environment to an extent that would expose the workers above the Action Levels of  $30\mu\text{g}/\text{m}^3$ .

For purposes of limiting the lead (Pb) dust, the Contractor will be required to dampen the lead paint work areas.

The Contractor shall install a proper shielding and/or tarpaulins under all lead-paint-coated surfaces to be shear cut or bolts or rivets ordered removed in order to catch any loose lead paint chips, dust or particles.

### **PLANS AND DETAIL DRAWINGS**

*(Supplementing Subsection 5.02)*

There are no known existing plans for Bridge No. L-17-003.

The Contractor shall perform his/her own investigation of the existing bridge to determine its condition and details.

### **PROTECTION OF UTILITIES AND PROPERTY**

*(Supplementing Subsection 7.13)*

The bridge plans may indicate the location of existing known utilities in the vicinity of the work. Bidders are cautioned to verify this information, as its accuracy and completeness are not guaranteed in any manner.

The Contractor is responsible for the protection of vehicular and pedestrian areas on and around the bridge being worked on. The Contractor at no additional compensation (unless otherwise, provided in this Contract) shall take all necessary precautions, including the use of shielding, to protect vehicles and pedestrians from debris.

## **NOTICE TO OWNERS OF UTILITIES**

Written notice shall be given by the Contractor to all public service corporations or officials owning or having charge of publicly or privately owned utilities attached to, or in the vicinity of the bridge, of his intention to commence operations and the Contractor shall at that time file a copy of such notice with the Engineer.

Before the Contractor begins any work or operations that may cause damage to any subsurface structures, he shall carefully locate all such structures and conduct his operations so as to avoid any damage to them.

A list of public and private utilities can be found on the MassDOT website at:

<http://www.massdot.state.ma.us/>

Select Quick Links

Select Doing Business with the Highway Division

Select Design/Engineering

Select Utility Contacts

Select District 3 on top of the webpage, select the City/Town, and then locate the utility.

The utility contact list is for guidance only and is not guaranteed to be complete or up to date.

The Contractor shall be responsible for informing the following officials in each area that he is assigned to work in:

Highway Superintendent, Town of Lunenburg

Police Department, Town of Lunenburg

Fire Department, Town of Lunenburg

## **PROTECTION OF UNDERGROUND FACILITIES**

The Contractor's attention is directed to the necessity of making his own investigation in order to assure that no damage to existing structures, drainage lines, traffic signal conduits, et cetera, will occur.

The Contractor shall notify Massachusetts DIG SAFE and procure a Dig Safe Number for each location prior to disturbing existing ground in any way. The telephone number of the Dig Safe Call Center is 811 or 1-888-344-7233

## **PIGEON WASTE**

The Contractor shall remove and dispose of the pigeon waste and any other debris accumulated on the steel members and bridge seats in areas where work is being performed. Pigeon waste and debris material contaminants will require special handling and disposal in accordance with all Federal, state, and local requirements. No separate payment will be made for removal and disposal of pigeon waste. Cost shall be incidental to the contract pay items.

## **NORTHERN LONG-EARED BAT PROTECTION**

The U.S. Fish and Wildlife Service has listed the northern long-eared bat as threatened under the Endangered Species Act (ESA) and the following requirements exist to protect the bat and its habitat. If additional cutting is proposed by the Contractor that is outside the scope of this contract, additional review is required by the Engineer and time of year restrictions may apply to such tree cutting.

## **PROVISIONS FOR TRAVEL AND PROSECUTION OF WORK**

Flat Hill Road will be closed to traffic during construction and traffic will be detoured.

Construction activities in the waterway shall be completed during the period the water level of Shirley Lake is lowered. This is estimated to occur between October and March.

The Contractor shall notify the abutters and the Town of Lunenburg in writing at least two (2) weeks in advance of any proposed commencement of the work. Before starting any work under this Contract, the Contractor shall submit a Schedule of Operations outlining the tasks and timeline to perform the work and submit for approval as stated in Subsection 8.02.

Based on current recorded easement periods, all work within the temporary easements at 890 Flat Hill Road must be completed by March 6, 2027. The contractor is not permitted to enter those properties after that time without approval from the Town and property owner. The Town is currently in the process of securing an extension to the 890 Flat Hill Road easement, which will be confirmed by either bid addendum or contract amendment. Easements at 895 Flat Hill Road and 887 Flat Hill Road are valid for 90 days after the completion of work.

The work shall be completed by May 31, 2027. Upon completion of the work, the Contractor shall propose a date for the Final Walk-Through. The Final Walk-Through shall be attended by a representative from the Town, Designer, and the Contractor. During the Final Walk-Through the Town and Designer will determine if the project has been completed to their satisfaction and identify any issues that need to be addressed before the project can be Closed Out.

## **SURVEY REQUIREMENTS**

The Contractor shall be responsible for establishing line and grade for the project, using the provided control points on the plans.

## **ENVIRONMENTAL REQUIREMENTS**

If Contractor erection, demolition, storage, or other procedures not originally allowed by existing environmental permits require work to occur in or otherwise impact water or wetland resource areas, the Contractor is advised that no associated work can occur until all required environmental permits have been either amended or obtained allowing such work. The Contractor must notify the Engineer in writing at least 60 days prior to commencement of the proposed activity. All environmental submittals, including any contact with Local, State, or Federal environmental agencies, must be coordinated through the Engineer. The Contractor is expected to fully cooperate with requests for information and provide same in a timely manner.

The Contractor is further advised that the Engineer will not entertain a delay claim due to the time required to modify or obtain the environmental permits.

**ORDERS OF CONDITIONS**

This project is subject to Section 401 of the federal Clean Water Act, 33 USC 1341, and Massachusetts Clean Water Act, M.G.L. c 21, § 26-53, and has been issued Orders of Conditions by the Lunenburg Conservation Commission. The Order of Conditions are considered to be part of this contract and a copy of the Orders of Conditions and all plans/attachments shall be on-site while activities regulated by the Orders of Conditions are being performed.

The Contractor’s attention is directed to the fact that special conditions and other requirements are associated with the Orders of Conditions. It is the Contractor’s responsibility to be aware of and comply with these conditions and requirements and plan his/her work and schedule accordingly. **The Contractor is hereby notified that he/she will be responsible and held accountable for performing any/all work necessary to satisfy and comply with the entire Orders of Conditions.**

The Order of Conditions are attached. The Contractor is advised that no additional compensation will be allowed for work required to establish, achieve, and maintain compliance with the Order of Conditions, as payment for the work shall be included in the various bid items. This work may include, but not limited to, the following: the hiring and paying for services of a Professional Biologist, Botanist, Wetland Scientist, Engineer, Landscape Architect, etc.; preparation and submission of as-built plans; wetland flagging; wetland replication monitoring reports, etc.

Payment for work required by the Order of Conditions, unless otherwise provided for, shall be considered incidental to other items, and no additional payment shall be made for this work.

Signs shall be displayed in accordance with the Massachusetts Department of Environmental Protection Order of Conditions. All signs shall be incidental to the project.

**DESIGNER/ TOWN DPW DIRECTOR**

DESIGNER

Brent Richard, PE  
Vanasse Hangen Brustlin, Inc.  
101 Walnut St  
Watertown, MA 02472  
(617) 924-1770

TOWN HIGHWAY DEPARTMENT

William Bernard  
Department of Public Works  
520 Chase Rd  
Lunenburg, MA 01462  
(978) 582-4160

**ITEM 115.1**

**DEMOLITION OF BRIDGE NO. L-17-003**

**LUMP SUM**

The work to be done under this Item shall conform to the relevant provisions of Section 112, 120, and 140 of the Standard Specifications, amended and or supplemented as follows:

The work to be done under this Item shall consist of the demolition and satisfactory removal of the entire existing culvert as shown on the plans.

Existing materials to be removed and disposed of under this Item include, but are not limited to, the following:

- The existing corrugated steel pipe
- The existing stacked granite approach material and headwalls

Within 10 working days of the notice to proceed, the Contractor shall submit a plan indicating his proposed demolition procedures and methods to be used including equipment, tools, devices, crane or excavator capacity and location, schedule of operations, methods of utility protection, etc., to the Engineer for approval. The requirements for equipment and all procedures utilized shall be in conformance with the intent of 960.61, subsection *Erection*, of the Standard Specifications.

Demolition of the culvert shall not commence until the Water Control is in place to divert the water flow and the demolition area is closed off from the lake.

The demolition procedures and any necessary calculations and drawings shall be stamped by a Professional Engineer registered in Massachusetts certifying that all existing structural members are suitably supported throughout the demolition process. In determining the stresses to which the structure will be subjected, all loading combinations including traffic and the Contractor's equipment shall be considered. The method of determining stresses shall conform to the latest AASHTO Standard Specifications for Highway Bridges. Work under this Item may not commence until the Engineer has given written approval.

No debris, tools or incidental equipment of any kind will be permitted to fall into areas within the vicinity of the waterway under. Any material that accidentally falls into such areas shall be removed immediately.

All materials removed under this item shall become the property of the Contractor and shall be removed from the job site and disposed of properly.

**MEASUREMENT AND PAYMENT**

Unless otherwise covered under other contract items, full payment for this work shall be included under the lump sum price for this item, and shall include all labor, equipment and materials necessary to complete the work.

**ITEM 140.**

**BRIDGE EXCAVATION**

**CUBIC YARD**

Work under this item shall conform to the relevant provisions of Sections 120, 140 and 150 of the Specifications and the following:

Excavation shall be as required to remove the existing culvert and install the proposed culvert and wingwalls to the line and grade shown on the Plans. Any materials encountered as defined in the referenced sections of the Specifications under the classification of Earth Excavation or Bridge Excavation shall be removed.

Backfill shall be placed and compacted in accordance with the relevant provisions of Section 150 of the Specifications. Compaction shall be achieved using mechanical tampers or other approved compacting equipment.

Any necessary temporary support of excavation shall be designed and stamped by a Professional Engineer registered in Massachusetts and submitted for approval. Any temporary support of excavation that protrudes into the soil below the proposed bridge footings must be cut off and left in place as extraction may disturb the supporting soil.

Excavation in the waterway shall be to the limits shown in the plans.

**MEASUREMENT AND PAYMENT**

Measurement shall be made to the nearest 0.1 cubic yards of Bridge Excavation complete and accepted by the Engineer. Payment will be made at the contract unit price per cubic yard and shall be considered full compensation for all labor, equipment, stockpiling, hauling, disposal, and incidentals necessary to complete the work.

**ITEM 150.2****NATURAL STREAMBED MATERIAL****CUBIC YARD**

Natural Streambed Material shall be in the disturbed areas of the channel and in the box culvert as shown on the plans. The material shall be placed to create a thalweg down the center of the culvert opening.

The Natural Streambed Material shall consist of a mix of rocks and existing natural streambed material that was excavated within the demolition limits. The rocks shall meet the requirements of M2.02.4, Modified Rockfill. The natural streambed material shall be natural material consisting of muck, soil, stones and/or silts that is material excavated under Bridge Excavation. The rocks shall compose approximately 60% of the volume of the total cubic yards of Natural Streambed Material and shall not exceed 80%. The remaining volume shall be composed of the natural streambed material of muck, soil, and silt from the project site.

**MEASUREMENT AND PAYMENT**

This item will be measured for payment per cubic yard, complete in place and accepted by the Engineer. It shall include all labor, tools, material, equipment and incidental costs required to complete the work.

The work to be done under this Item consists of installing new saw cut joints at bridge approaches. The location of the sawcut joint shall be accurately recorded and reference marks shall be placed on the adjacent curb areas. Locate and reference the location of this new joint at the bridge deck ends per the proposed detail drawings prior to the placement of any pavement. Note that the saw cut joint shall be located at the back face of the backwall.

The reconstruction of the sawcut joint shall consist of sawcutting, cleaning, and sealing transverse joints in the new finished asphalt pavement.

Joint seal material shall be an asphalt rubber compound of the hot poured type conforming to subsection M3.05.4, & ASTM D3405 with a minimum 15% ground reclaimed tire rubber.

Sawcutting shall not be performed until the new hot mix asphalt pavement at the transverse joint location has thoroughly cooled and sufficiently aged to allow a clean cut to be made. The new sawcut joint must be done within seven (7) days after the placement of the wearing course of pavement. The Contractor is hereby advised that experience has shown that as little as a 1-inch deviation of the sawcut from the joint location can result in a reflective crack through the overlay above the joint rather than at the sawcut location. Extreme care must, therefore, be taken to reference the joint prior to the placement of the hot mix asphalt overlay.

The sawcut portion of the joint shall be made with an approved power driven saw. The blade or blades shall be of such size and configuration that the desired dimensions of the sawcut can be made with one pass. The dimensions of the sawcut joint shall be as per the detail drawing included in this Contract. The sawcut shall be made with an abrasive blade and sawn dry or with a diamond blade and sawn wet.

Wet sawed joints shall be thoroughly cleaned with a water blast to remove any sawing slurry, dirt, or deleterious matter adhering to the joint walls or remaining in the joint cavity. The joints shall then be blown with air to provide dry joint surfaces prior to sealing. A Hot-Air-Lance shall be used for this operation. Dry sawed joints shall be thoroughly cleaned with a stream of air sufficient to remove any dirt, dust, and deleterious matter adhering to the joint walls or remaining in the cavity.

The Contractor shall conduct his operations so that the sawcutting of joints, cleaning, and sealing is a continuous operation. Sawcut joints shall be filled and cured prior to opening to traffic. If sawed joints are not sealed before traffic is allowed on the overlay, the joints shall be re-sawn, as directed by the Engineer, when sawing and sealing operations resume at no additional cost.

After cleaning, and just prior to sealing, bond breaker tape shall be placed in the bottom of the sawcut joint. Bond breaker tape shall consist of regular masking tape or a suitable bond breaker tape designed for use with poured sealants. The width of the tape may be equal to but not more than 1/8 inch narrower than the width of the sawcut.

The joint sealant material shall be heated in a kettle or melter constructed as a double boiler, with a space between the inner and outer shells filled with oil or other heat transfer medium. The equipment shall include positive temperature controls, automatic and continuous mechanical agitation, recirculation pumps, and thermometers for continuous reading of temperature of both the sealing compound and the heat transfer

medium. The melter shall be equipped with a thermostat to maintain the sealing compound within the range of the temperatures specified by the manufacturer.

Air compressors shall be capable of furnishing at least 175 cubic feet of air per minute at no less than 130 psi pressure at the nozzle. If the velocity of this unit is not sufficient enough to thoroughly clean the joint, as determined by the Engineer, a hot-air-lance must be used. The compressor shall be equipped with traps that will maintain the compressed air free of oil and water.

The joint seal shall be applied with a mobile carriage and a rubber or metal shoe and have a flow control valve that allows the joints to be filled to refusal so as to eliminate all voids or entrapped air and not to leave unnecessary surplus sealer on the pavement surface. Pour pots or similar devices shall not be used to fill sawed joints. The hot seal shall completely fill the joint such that after cooling, the level of the sealer will not be greater than 1/8 inch below the pavement surface. Any depression in the seal greater than 1/8 inch shall be brought up to the specified limit by the further addition of hot seal. Overfilling of the joints will not be allowed and spillage should be avoided.

The sealer shall be tack free prior to opening the location to traffic. Sand shall not be spread on the sealed joints to allow for roadway opening to traffic. Boiler slag aggregate (black beauty) shall be used when deemed necessary by the Engineer.

No sealing materials shall be applied in wet joints or where frost or snow or ice is present or where ambient temperature is below 40° F. Any given quantity of material shall never be heated at the pouring temperature for more than six (6) hours and shall never be reheated more than once.

All joints determined by the Engineer to be dried or rejuvenated shall be heated, prior to application of sealer, with a hot-air-lance that operates at 1100° F at 35 ft / min velocity. The lance shall have no exit flame that burns the asphalt.

All workmanship shall be of the highest quality. Excess or spilled sealer shall be removed from the pavement by approved methods and discarded. Any workmanship determined to be below the high standards of the particular craft involved will not be accepted and shall be corrected and replaced as required by the Engineer. Care shall be taken in the sealing of the joints so that the final appearance will present a neat fine line.

## **MEASUREMENT AND PAYMENT**

Payment for work done under Item 482.31 will be made at the Contract unit price per foot of sawed and sealed joints. Locating and referencing existing joints is considered incidental to this Item and shall be done without additional compensation.

<u>ITEM 620.12</u>	<u>GUARDRAIL, TL-2 (SINGLE FACED)</u>	<u>FOOT</u>
<u>ITEM 627.1</u>	<u>TRAILING ANCHORAGE</u>	<u>EACH</u>
<u>ITEM 627.82</u>	<u>GUARDRAIL TANGENT END TREATMENT, TL-2</u>	<u>EACH</u>
<u>ITEM 627.92</u>	<u>GUARDRAIL FLARED END TREATMENT, TL-2</u>	<u>EACH</u>
<u>ITEM 628.25</u>	<u>TRANSITION TO THRIE BEAM</u>	<u>EACH</u>

The work under these items includes the furnishing and installation of these items. These items shall conform to the Standard Specifications except that these items shall be NCHRP-350 TL-2 tested devices or MASH TL-2 tested devices.

#### **MEASUREMENT AND PAYMENT**

These items will be paid for at the Contract unit price per foot or per each, which price shall include all labor, tools, material, equipment and incidental costs required to complete the work.

**ITEM 657.****TEMPORARY FENCE****FOOT**

The work under these Items shall conform to the relevant provisions of Sections 644, 665 of the Standard Specifications and the following:

The work under this Item consist of furnishing, installing, removing, resetting, and final removal from the project site of 8-foot high temporary fence and gates to separate construction activities from public access as shown on the plans or as required by the Engineer.

The Contractor shall install and maintain temporary construction fences around the work areas as required by the Engineer.

**MATERIAL**

Unless otherwise indicated, type of temporary chain link fencing shall be Contractor's option. Following types are acceptable:

1. New materials or previously used salvaged chain link fencing in good condition – subject to inspection/approval by the Engineer.
2. Posts: Galvanized steel pipe of diameter to provide rigidity. Post shall be suitable for setting in concrete footings, driving into ground, anchoring with base plates, or inserting in precast concrete blocks.
3. Fabric: Woven galvanized steel wire mesh. Provide in continuous lengths to be wire tied to fence posts or prefabricated into modular pipe-framed fence panels.

**Gates**

Provide personnel and vehicle gates as required for functional access to site.

1. Fabricate of same material as used for fencing
2. Vehicle gates:
  - a. Maintain minimum width necessary for emergency vehicles as approved by the Engineer.
  - b. Capable of manual operation by one person.

Gates shall be fabricated using welded construction or heavy pressed steel or malleable corner fitting securely riveted. Gates shall be properly braced and diagonally trussed to eliminate any possible sagging. Hinges shall be of sufficient strength and design to permit easy and trouble free operation. All single swing gates shall be equipped with two H.O. hinges and one yoke latch per gate. All double swing gates shall be equipped with a positive type latching device with padlock fitting.

Installation of temporary fencing shall not deter or hinder access to existing or proposed fire hydrants. Maintain 3 feet diameter clear space around fire hydrants. Where fire hydrant is blocked by fencing, provide access gate.

The contractor shall maintain temporary fence in good condition all the time. If damaged, shall be immediately repaired

The fence shall not be removed without prior approval of the Engineer.

**ITEM 657.** (Continued)

The Contractor shall backfill and compact holes. Holes in pavement shall be surfaced to match existing paving. The contractor shall repair all damages caused by installation of temporary fencing.

**METHOD OF MEASUREMENT**

Item 657 will be measured for payment by the Foot of temporary fence, including gates.

Temporary construction fence will be measured along the top edge of the fence element from center to center of end posts, including gates.

No measurements will be made for removing, relocating and resetting any temporary fence moved for the convenience of the contractor.

**BASIS OF PAYMENT**

Item 657. will be paid for at the Contract unit prices per Foot, which price shall include all labor, materials, equipment, and all incidental costs required to complete the work.

No separate payment will be made for all posts including end, corner, and intermediate brace posts, all gates and gate posts, removing and resetting of temporary fence for the convenience of the Contractor, the replacement and/or restoration of fence damaged due to construction accidents, vandalism and/or any other manner, final removal, but all costs in connection therewith shall be included in the Contract unit price bid.

No separate payment will be made for temporary fencing used to protect contractor equipment or material stored outside of the work zone.

**ITEM 697.1**

**SILT SACK**

**EACH**

Work under this item shall conform to the relevant provisions of Section 670 of the Standard Specifications and the following:

The work under this item includes the furnishing, installation, maintenance and removal of a reusable fabric sack to be installed in drainage structures for the protection of wetlands and other resource areas and the prevention of silt and sediment from the construction site from entering the storm water collection system. Devices shall be ACF Environmental (800)-448-3636; Reed & Graham, Inc. Geosynthetics (888)-381-0800; The BMP Store (800)-644-9223; or approved equal.

**CONSTRUCTION**

Silt sacks shall be installed in retained existing and proposed catch basins and drop inlets within the project limits and as required by the Resident Engineer.

The silt sack shall be as manufactured to fit the opening of the drainage structure under regular flow conditions and shall be mounted under the grate. The insert shall be secured from the surface such that the grate can be removed without the insert discharging into the structure. The filter material shall be installed and maintained in accordance with the manufacturer's written literature and as directed by the Engineer.

Silt sacks shall remain in place until the placement of the pavement overlay or top course and the graded areas have become permanently stabilized by vegetative growth. All materials used for the filter fabric will become the property of the Contractor and shall be removed from the site.

The Contractor shall inspect the condition of silt sacks after each rainstorm and during major rain events. Silt sacks shall be cleaned periodically to remove and disposed of accumulated debris as required. Silt sacks, which become damaged during construction operations, shall be repaired or replaced immediately at no additional cost to the Department.

When emptying the silt sack, the contractor shall take all due care to prevent sediment from entering the structure. Any silt or other debris found in the drainage system at the end of construction shall be removed at the Contractors expense. The silt and sediment from the silt sack shall be legally disposed of offsite. Under no condition shall silt and sediment from the insert be deposited on site and used in construction.

All curb openings shall be blocked to prevent stormwater from bypassing the device.

All debris accumulated in silt sacks shall be handled and disposed of as described in Item 227.3, Removal of Drainage Structure Sediment.

**METHOD OF MEASUREMENT AND BASIS OF PAYMENT**

Silt sacks will be measured and paid at the Contract unit price per each, complete in place, which price shall include all labor, materials, equipment and incidental costs required to complete the work.

**ITEM 698.1**  
**ITEM 698.3**

**GEOTEXTILE FABRIC FOR STABILIZATION**  
**GEOTEXTILE FABRIC FOR SEPARATION**

**SQUARE YARD**  
**SQUARE YARD**

The work under these items shall conform to the requirements of Section M9.50.0 of the Standard Specifications and the following:

The work under this item includes the furnishing and installation of geotextile fabric under the stone revetment slopes, and bridge and wingwall footings. Geotextile fabric shall not be placed under the stone within the stream bed restoration area.

At locations of fabric installation, the subgrade shall first be graded and compacted. All rocks, vegetation, and other obstructions shall be removed before placement of fabric. The fabric shall be installed and fastened in place in conformance with the manufacturer's recommendations for each type of condition listed above.

Fabric shall conform to the requirements of AASHTO M288-Class 3 for Separation or Class 1 for Stabilization.

#### **METHOD OF MEASUREMENT AND BASIS OF PAYMENT**

Geotextile fabric will be measured for payment per square yard, complete in place; any overlaps shall be measured as a single layer of cloth.

Geotextile fabric will be paid for at the Contract unit price per square yard, which price shall include all labor, tools, material, equipment and incidental costs required to complete the work.

## **ITEM 751.7    COMPOST MULCH OVER MODIFIED ROCKFILL    SQUARE YARD**

The purpose of this item is to provide compost mulch for erosion control and better seed establishment. Typically, hydraulic application equipment will be required for this item, unless otherwise permitted by the Engineer, in writing. This item shall conform to the requirements of Section 767 and 765 of the Standard Specifications and the following.

### **SUBMITTALS**

Provide representative sample of compost with approved laboratory analysis. Analysis shall be for compost (not a soil test) and shall include testing for stability.

### **MATERIALS**

Compost shall meet the requirements for Organic Soil Additives, Section M 1.06.0 of the Standard Specifications. No kiln-dried wood or construction debris shall be allowed.

Organic matter content shall be minimum 30 percent (dry weight basis) as determined by ASTM D2974 (method A) Standard Test Methods for Moisture, Ash and Organic Matter of Peat and Other Organic Soils.

Moisture content shall be 40-60 percent as measured by ASTM D2216 Standard Test Method for Laboratory Determination of Water Content of Soil and Rock and ASTM D2974 (cited above).

### **CONSTRUCTION METHODS**

Methods of installation shall be reviewed and approved by the Engineer prior to placement of material.

Placement of compost mulch shall be as shown on the plans and as directed by the Engineer. Compost mulch material shall be applied pneumatically. Material shall be placed so that settled material is at or slightly below the surface plane of the stone. Contractor shall ensure that there will be adequate quantity, including adjustment for settlement.

Seeding shall be done at the same time as compost topsoil is being applied and shall be by broadcast method as specified under the seeding item and such that a very thin blanket of material covers the seed.

### **METHOD OF MEASUREMENT AND BASIS OF PAYMENT**

Compost mulch will be measured for payment per square yard, complete in place

Compost mulch will be paid for at the Contract unit prices per square yard, which price shall include all labor, materials, equipment, and all incidental costs required to complete the work.

Seed shall be compensated at the bid price per the seeding item.

**ITEM 767.121**

**SEDIMENT CONTROL BARRIER**

**FOOT**

The work under this item shall conform to the relevant provisions of Sections 751 and 767 of the Standard Specifications and Section 670 of the Standard Supplemental Specifications and shall include the furnishing and placement of a sediment control barrier. Sediment Control Barrier shall be installed prior to disturbing upslope soil.

The purpose of the sediment control barrier is to slow runoff velocity and filter suspended sediments from storm water flow. Sediment barrier may be used to contain stockpile sediments, to break slope length, and to slow or prevent upgradient water or water off road surfaces from flowing into a work zone. Contractor shall be responsible for ensuring that barriers fulfill the intent of adequately controlling siltation and runoff.

Twelve-inch diameter (after installation) compost filter tubes are intended to be the primary sedimentation control barrier.

For small areas of disturbance with minimal slope and slope length, the Engineer may approve the following sediment control methods;

- Straw tubes/wattles which shall be trenched
- Straw bales which shall be trenched

Additional barriers (adding depth or height) shall be used at specific locations of concentrated flow such as at gully points, steep slopes, or identified failure points in the sediment capture line. Where specified or required by permits, silt fence shall be used in addition to compost filter tubes or straw bales and shall be incidental to the item.

**MATERIALS AND CONSTRUCTION**

Prior to initial placement of barriers, the Contractor and the Engineer shall review locations specified on the plans to ensure that the placement will provide maximum effectiveness.

Barriers shall be staked, trenched and/or wedged as specified herein and shall be securely in contact with existing soil such that there is no flow beneath the barrier.

**Compost Filter Tube**

Compost material inside the filter tube shall meet M1.06.0, except for the following: no manure or bio-solids shall be used; no kiln-dried wood or construction debris shall be allowed; material shall pass through a 2-inch sieve; and the C:N ratio shall be disregarded. Outer tube fabric shall be a knitted mesh with 1/8 - 3/8" openings and made of 100% biodegradable materials (i.e., cotton, hemp or jute). Compost filter tubes shall be a minimum of 12 inches in diameter installed. Tubes shall be placed, filled, and staked in place as required to ensure stability against water flows. All tubes shall be tamped, but not trenched, to ensure good contact with soil.

Where reinforcement is necessary, additional tubes shall be installed as shown on the plans.

## **Straw Bales**

Straw bales shall conform to the requirements of Section M6.04.3 of the Standard Specifications and the following:

Bales should be a minimum size of 12 x 16 x 36 inches and shall be placed in a single row, lengthwise on the contour, with ends of adjacent bales tightly abutting one another. The bales shall be trenched and backfilled. The trench shall be excavated the width of the bale and the length of the proposed barrier to a depth of 4 inches. After the bales are staked the excavated soil shall be backfilled against the barrier. Backfill soil shall conform to the ground level on the downhill side and shall be built up to 4 inches against the uphill side of the barrier.

## **Straw Wattle**

Straw wattle shall be a minimum of 12 inches in diameter. Straw filling shall conform to the requirements of Section M6.04.3, shall be encased in durable netting, and shall have a density of 3 lb/foot. Straw wattle shall be trenched in 3 inches deep and staked according to the plans. The wattles shall be sufficiently secure on the upstream side to prevent water flowing underneath the wattle.

## **Silt Fence**

Materials and Installation shall be per Section 670.40 of the Standard Supplemental Specifications and the following:

Silt fence shall be used when specified by Orders of Condition or other permitting.

When used with compost filter tubes, the tube shall be placed on a minimum of 8 inches of folded fabric on the upslope side of the fence. Fabric does not need to be trenched.

When used with straw bales, an 8-inch deep and 4-inch wide trench or V-trench shall be dug on the upslope side of the fence line. One foot of fabric shall be placed in the bottom of the trench followed by backfilling with compacted earth or gravel. Stakes shall be driven 16 inches into the ground on the down slope side of the trench and shall be spaced such that the fence remains vertical and effective.

Width of fabric shall be sufficient to provide a 36-inch high barrier after fabric is folded or trenched. Sagging fabric will require additional staking or other anchoring.

## **MAINTENANCE**

Barriers shall be inspected after each rainfall and at least daily during prolonged rainfall. Contractor shall remove accumulated sediments when they reach one half the height of the barrier or sediment fence.

The Contractor shall immediately correct all deficiencies, including, washouts, overtopping, clogging due to sediment, and erosion. The contractor shall review location of barriers in areas where construction activity causes drainage runoff so as to ensure that the barriers are properly located for effectiveness. Where deficiencies exist, such as overtopping or wash-out, additional staking or additional barriers shall be installed as required by the Engineer.

At specific locations, such as at gully points, steep slopes, or identified failure points in the sediment capture line, barriers shall be reinforced as required by the Engineer. Such reinforcing shall be incidental to the cost of this item and shall not exceed 10 percent of the overall length of barrier required for the project.

Barriers that are decomposing, cut, or otherwise compromised shall be repaired or replaced as directed by the Engineer. Repair and/or replacement shall be incidental to this item.

### **DISMANTLING & REMOVING**

Barriers shall be dismantled and/or removed when construction work is complete and when site conditions are sufficiently stable to prevent surface erosion and after receiving permission to do so from the Engineer.

For all instances, all nonbiodegradable material, including photobiodegradable fabric, plastic netting, nylon twine, and silt fence shall be removed and disposed off-site by the Contractor regardless of site context.

For naturalized areas, biodegradable, natural fabric and material shall be left in place to decompose on-site unless required otherwise by the Engineer. Compost filter tubes may be left as they are with stakes removed. Hay bales shall be broken down and spread evenly. All nylon or nonbiodegradable twine shall be removed along with silt fence. Wooden stakes may be left on site, placed neatly and discretely.

In urban or residential locations where aesthetics is a concern the following shall apply:

Filter tube fabric shall be cut and removed and compost shall be raked so as to blend evenly as a soil amendment or mulch and with no areas greater than 2 inches in depth on soil substrate.

Hay bales shall be removed and disposed off-site by the Contractor. Areas of trenching shall be raked smooth and disturbed soils stabilized with seed matching adjacent grasses with either a lawn or native grass mix.

Silt fence, stakes and other debris shall be removed and disposed off-site. Site shall look neat and clean upon completion.

Dismantling, removal and seeding shall be incidental to this item.

### **METHOD OF MEASUREMENT AND BASIS OF PAYMENT**

This item will be measured and paid for at the Contract unit price per foot which price shall include all labor, equipment, materials, maintenance, dismantling, removal, restoration of site, silt fence if required, and incidental costs required to complete the work.

**ITEM 950.5****TEMPORARY EXCAVATION SUPPORT****LUMP SUM**

All work under this Item shall conform to the relevant portions of Section 140 and 950 and the following:

The Contractor shall furnish, install, maintain and remove a temporary excavation support system as required based upon the actual site conditions, for the maintenance of stability of abutters' properties during the demolition and construction of the existing and proposed culvert. This earth support system shall be designed by the Contractor and shall provide sufficient space to allow for the installation of the proposed culvert and wingwalls during construction without compromising the stability of the existing utility poles adjacent to the project site.

The temporary excavation support system shall consist of sheet piling, soldier piling and lagging, or any other system that satisfies the design criteria contained herein. The temporary earth support system must be capable of supporting all loads applied during construction, where the excavation depth will be approximately 11 feet at a minimum distance of 5 feet from the existing utility pole. The temporary excavation support system shall extend a sufficient distance such that the maximum slope of the excavated surface does not exceed 1 (vertical) to 1.5 (horizontal). The temporary excavation support system must be configured such that it will serve its intended purpose during construction without the need for reinstallation or major modifications.

All material used for the temporary earth support system shall be sound and free from strength impairing defects. Steel sheeting (if used) shall conform to the applicable requirements of Section 950.

The Contractor shall submit to the Engineer for approval a temporary excavation support system design that is designed to carry the applicable loads, including, but not limited to, earth pressure and surcharge due to truck or equipment loading during construction. The temporary excavation support system must be designed and stamped by a Professional Engineer registered in the Commonwealth of Massachusetts. No excavation work may begin without the Engineer's written approval of the detailed drawings and calculations for the temporary excavation support system.

The Contractor shall accurately locate all utility lines and structures to ensure that the proposed temporary excavation support system will not interfere with any existing utilities and structures.

No measurement for the work to be done under this Item shall be performed. Payment for the work to be done under this Item shall be at the contract lump sum price. Such price shall be considered full compensation for all labor, equipment, materials and tools necessary to accomplish the specified work in a manner satisfactory to the Engineer. Payment shall be made based upon the following percentages: 10% upon approval of design, 60% upon complete installation, and 30% upon removal.

**ITEM 986.3****STONE SLOPE REVETMENT****TON**

The work under these Items shall conform to the relevant provisions of Subsection 983 and Subsection 258 of the Standard Specifications and the following:

**GENERAL**

Stone Slope Revetment shall consist of angular shaped stones dumped in place to form a well graded mass with a minimum of voids, at the locations shown on the plans and details.

**MATERIAL**

Stone material shall comply with the provisions of M2.02.3: Stone for Pipe Ends.

**CONSTRUCTION**

Stones shall be placed on the prepared slope or area in a manner which will produce a reasonably well graded mass of stone with the minimum practicable percentage of voids and minimum thickness of 2 ft. The stones shall be placed upon an approved bed of crushed stone or other acceptable material, to the lines and grades shown on the plans and as directed.

The larger stones shall be well distributed, and the entire mass of stone shall conform approximately to the gradation specified in M2.02.3: Stone for Pipe Ends. All material going into stone slope protection shall be so placed and distributed that there will be no large accumulations of either the larger or smaller sizes of stone. It is the intent of these specifications to produce a fairly compact stone slope protection in which all sizes of material are placed in their proper proportions. Hand placing or rearranging of individual stones by mechanical equipment may be required to the extent necessary to secure the results specified.

**METHOD OF MEASUREMENT AND BASIS OF PAYMENT**

Stone Slope Revetment will be measured for payment per ton, complete in place.

Stone Slope Revetment will be paid for at the Contract unit prices per ton, which price shall include all labor, materials, equipment, and all incidental costs required to complete the work.

Excavation in cuts when required in the construction of revetment, will be paid for at the contract unit price per cubic yard under the Item 120.1 – Unclassified Excavation or Item 140. – Bridge Excavation, whichever is applicable.

Crushed Stone required for foundation revetment will be paid for under Item 156. – Crushed Stone.

Geotextile fabric placed below the crushed stone shall be paid for under Item 698.1 – Geotextile Fabric for Stabilization.

**ITEM 991.1****CONTROL OF WATER OF BRIDGE NO. L-17-003****LUMP SUM**

The work to be done under this item shall conform to the relevant provisions of Sections 140 and 950 of the Standard Specifications and the following:

The work shall include the furnishing, installation, operation, maintenance, and removal of the water control system and sedimentation treatment basin required for the construction of the proposed culvert and wingwalls. The Water Control System shall be capable of the following:

- diverting the stream flow around the construction area
- preventing stream flow into or through the constructed works
- lowering the water table within the work area to an elevation below the bottom of the proposed crushed stone foundation mat in the construction area as determined by the Engineer and as shown on the plans

All material and equipment storage, and all equipment refueling and maintenance activities, shall be located outside of the area dewatered by the Water Control System. The Contractor shall use pumping to keep the construction zones dry while work is performed and utilize sedimentation basins for the water discharge from the pump. The use of earthen berms in the waterway is prohibited.

**The work shall be done during the annual period of time that the Lake Shirley water elevation is lowered to approximately the mudline in the vicinity of the culvert. The construction dates provided are coordinated to allow for construction during this low water elevation period.**

The Contractor shall submit a Water Control Plan for the bridge, defining and detailing the methods for control of water and type of installation to be used. These Plans shall be submitted to Engineer for review and approval prior to construction. All plans, procedures and calculations shall be stamped by a Professional Engineer registered in the Commonwealth of Massachusetts. Alternate methods of dewatering may be substituted by the Contractor upon approval of the Engineer.

A sandbag cofferdam, or other similar means of blocking and diverting the water, shall be used to block and divert the water flow and shall be approved by the Engineer. Bypass pumping and/or water diversion piping shall be used to maintain the water elevation upstream below the top of cofferdam and prevent water from entering the construction zone. The Contractor shall adjust the height of the cofferdam, if needed, and use supplemental pumping in the event of an extreme rain event or unusually high flows. **A water diversion pipe shall be kept available onsite in the case of the water elevation exceeding the capacity of the sandbags and bypass pumping.**

The Contractor shall include a Schedule of Operations with the Control of Water Plan submitted to the Engineer for review that defines and details the methods for control of water and type of installation to be used. The Schedule of Operations shall include a water control contingency plan with the following components:

- Backup pumps, hoses, pipes, generators, sandbags, poly sheeting, and/or other applicable materials kept on site for repairs to the control of water system
- Backup methods for control of water under high-flow (10 cfs or higher) stream conditions. This shall include a contingency plan to evacuate and stabilize the construction zone, including placement of poly sheeting and crushed stone ballast over unfinished work, in the event that stream flows exceed the capacity of diversion pumps and/or pipes.

The Contractor shall be responsible for the removal and legal disposal of all temporary structures or devices to an off-site location. The Contractor is responsible for restoring the stream bed to its original state, regrading, loaming, and seeding of all disturbed areas above the stream banks, and any other incidental work required to perform this work as directed by the Engineer.

The Contractor shall comply with all conditions included with the Town of Lunenburg Conservation Commission Order of Conditions, attached hereto (see Appendices). In case of conflict the aforementioned Conditions take precedence over these Specifications.

All excavation for the installation of the temporary water control shall conform to Section 120. All excavated materials for the temporary water control such as earth, rock, muck, pavement, and stone, shall be incidental to this item.

All dewatering and related earthwork shall be conducted in such a manner as to prevent siltation or contamination of the waterway. The pumping discharge shall not be allowed to enter directly into the waterway. The water from the work areas shall be pumped to a sedimentation basin. This basin shall be constructed so as to allow the pumped water to pass through the basin with sediments settling out before outletting. At a minimum, the basin shall be constructed of an earthen or stone berm lined with geotextile fabric and surrounded by staked straw bales or compost filter tubes. The basin shall meet or exceed the following criteria:

- A. The size and location of the basin shall be determined based on the size of the contractor's pump and the anticipated flows for the construction of the culvert and wingwalls in the dry.
- B. The outlet/weir of the dewatering basin shall not cause erosion of the surrounding area. An approved method of controlling erosion, such as an erosion control blanket, stone, etc., shall be used at the outlet of the basin.
- C. The Contractor shall maintain the dewatering operations in working condition, including periodic removal of accumulated sediment within the basin to permit its proper function. The water pump and hoses for dewatering shall be in good working condition and of adequate power and size for the operation.
- D. The contractor shall inspect straw bales/compost filter tubes that surround the outlet daily and shall immediately replace any that are damaged.
- E. The proposed location and design of the settling basin shall be subject to the approval of the Engineer and the Lunenburg Conservation Commission and MassDEP prior to construction.

Plans and calculations (if applicable) for all water control barriers, sedimentation basins, pumps, and other water control measures shall be developed by the Contractor for this item. These plans and calculations shall be prepared and stamped by a Professional Engineer registered in Massachusetts and shall be submitted for the approval of the Engineer prior to the start of construction.

The Contractor shall be responsible for the removal and proper disposal of all temporary structures or devices to an off-site location. The Contractor is responsible for restoring the stream bed to its original state, regrading, loaming, and seeding of all disturbed areas, and any other incidental work required to perform this work as directed by the Engineer.

Prior to removal of the dewatering system, the Contractor shall notify the Town to inspect the restored stream bed.

#### **METHOD OF MEASUREMENT AND BASIS OF PAYMENT**

Payment for the work to be done under this item shall be at the contract lump sum bid price for Item 991.1 Control of Water, which price shall include all labor, materials, equipment, steel sheeting or other means of blocking water and directing flow, temporary diversion pipes, excavation for temporary pipes, sedimentation basins, filter bags, pumping, removal of temporary water control devices, restoration of all disturbed areas and all incidental costs required to complete the work. Payment for all work related to the installation, removal, and restoration of temporary water control shall be included under this Lump Sum and not under other items of work in the contract.

**ITEM 995.01****BRIDGE STRUCTURE, BRIDGE NO. L-17-003****LUMP SUM**

The work to be done under this Item shall conform to the applicable provisions of Section 901 and Section 995 of the Standard Specifications and the specific requirements stipulated below for the component parts of this Item.

Work under this Item shall include all materials, equipment and labor needed to replace the bridge. This work includes, but is not limited to, the construction and installation of the proposed box culvert, curtain walls, wingwalls, safety curbs, and thrie beam bridge railing.

Work under this Item shall include all materials, equipment and labor needed to construct the following components:

- 5000 psi, ¾ Inch, 685 HP Cement Concrete for Safety Curbs
- Precast Concrete Box Culvert and Curtain Walls
- Steel Reinforcement for Structures – Epoxy Coated
- Thrie Beam Guardrail Bridge Railing with Handrail

Materials shown on the plans as being part of this bridge structure or incidental to its construction shall be included for payment in this Lump Sum and shall not be included for payment under another Item in this contract.

**5000 PSI, ¾ INCH, 685 HP CEMENT CONCRETE**

5000 PSI, ¾ IN., 685 HP Cement Concrete shall be used to construct the proposed wingwalls, which may be cast-in-place or precast concrete, the proposed safety curbs on the wingwalls and on the box culvert. These items shall conform to all material and placement, finishing, and curing requirements of the Standard Specifications.

An alternate precast concrete wall system may be used by the Contractor with the approval of the Engineer. The alternate wall system shall be designed and stamped by a Professional Engineer licensed in the Commonwealth of Massachusetts. Design calculations and shop drawings shall be submitted to the Engineer for approval. Precast concrete wall systems shall conform to the applicable sections of the specifications for PRECAST CONCRETE BOX CULVERT AND CURTAIN WALLS.

**PRECAST CONCRETE BOX CULVERT AND CURTAIN WALLS**

The work under this Heading consists of designing, fabricating, transporting and installing the precast concrete box culvert and curtain walls, and includes all necessary labor, materials, and equipment to complete the work as shown on the Plans. The work shall conform to the Standard Specifications and the requirements of the current AASHTO LRFD Bridge Construction Specifications, supplemented by the current relevant provisions of the latest edition of PCI MNL-116 (The Manual for Quality Control for Plants and Production of Precast and Prestressed Concrete Products), except as noted herein. contract documents shall take precedence over the AASHTO LRFD Bridge Construction Specifications and PCI MNL-116. Section 930, M4.02.14, and M4.03.00 through M4.03.14 of the Standard Specifications are superseded in their entirety by the requirements specified below.

*DESIGN*

The precast elements shall be designed in accordance with the current version and latest interim specifications of LRFD Bridge Design Specifications of the American Association of State Highway and Transportation Officials (AASHTO) for HL-93 loading.

### Design Submissions

The Contractor shall submit to the Engineer a PDF copy of the design computations prepared and stamped by a Professional Engineer registered in Massachusetts for the precast culvert and curtain walls for review and acceptance. The design computations shall consider all loadings as are appropriate for each stage of fabrication, shipment, construction, and final condition.

Shop drawings shall be prepared and stamped by a Professional Engineer licensed in Massachusetts. Prior to fabrication, a PDF copy of complete shop drawings showing, at a minimum, the following information shall be submitted to the Engineer for approval:

1. Plan layout of the structure indicating the piece mark of each precast unit;
2. Catalogue cut-sheets for all hardware to be used in the precast elements;
3. Description of the fabricating plant, including any backup concrete mixing facilities, current MassDOT approved concrete mix design and proposed method of placement. Modifications or deviations from the current MassDOT approved mix design at any time after the original approval shall be submitted to the Engineer for approval;
4. Proposed admixtures to be added to the concrete mix, including brand and dosage rates, shall be consistent with the MassDOT approved mix design;
5. Outline of the proposed concrete curing procedures for both the precast units and test cylinders;
6. The name of the Manufacturer of all reinforcing steel;
7. Complete details of all precast units, including all dimensions and tolerances, locations and types of reinforcement, finish treatments, and concrete strengths at lifting and at 28 days;
8. Details of culvert units and all connections;
9. Joint dimensions and details including type and brand of joint sealing materials;
10. Locations and methods of forming lifting holes, type and location of lifting devices, and the method of handling and transporting all precast units to the job site;
11. Provisions for repair of minor non-structural defects;
12. Winter concreting procedures, if the need is anticipated.

## *QUALITY ASSURANCE*

### **Plant.**

Fabricators shall be approved by MassDOT in accordance with Standard Specifications, Division I, Section 6.01. The precast concrete plant shall be certified by the Precast/Prestressed Concrete Institute (PCI) for the Category B1 level or higher. All concrete for a given concrete unit shall be produced by a single company and plant, unless otherwise approved by the Engineer.

### **Fabricator Quality Control.**

The Fabricator shall perform Quality Control activities in accordance with their PCI certification. All concrete units shall be fabricated in accordance with the latest edition of PCI MNL-116 as modified herein. QC inspection and testing shall be performed to ensure that the product is fabricated in accordance with the Contract Documents and PCI MNL-116. Copies of QC inspection and testing reports shall be provided to the Owner's Representative.

#### **A. Personnel.**

The Contractor shall submit to the Engineer the Fabricator's proof of the following Quality Control Personnel qualifications:

1. A QC Manager with a minimum of 5 years continuous experience in the manufacture of reinforced concrete bridge components.

2. A Technician/Inspector having the Precast/Prestressed Concrete Institute (PCI) Technician/Inspector Level II or higher.
3. Other Quality Control Personnel required by PCI.

#### **B. Laboratory.**

The Fabricator shall provide a room of sufficient size to house all equipment and to adequately perform all testing. The room shall have either a separate moisture storage room or curing box for concrete cylinders, and it shall be thermostatically controlled to maintain temperatures consistent with AASHTO T 23.

#### **C. Equipment.**

The Plant Facility shall have the following equipment:

1. Air Content Meter Type A or B: AASHTO T 152
2. Air Content Meter Volumetric Method: AASHTO T 196 for lightweight concrete
3. Slump Cone: AASHTO T 119
4. Cylinder Molds: AASHTO M 205
5. Concrete Testing Machine: AASHTO T 22
6. Screening Sieve: AASHTO T 27, AASHTO T 11
7. Curing Box: AASHTO T 23
8. Spread Test Base Plate for Self-Consolidating Concrete: ASTM C1611
9. All other equipment prescribed by AASHTO and ASTM standards for the tests to be performed by the Fabricator as specified.

#### **D. Inspection.**

Quality Control personnel shall monitor and inspect the fabrication of each unit. Quality Control personnel shall record the maximum and minimum temperatures of the concrete, as appropriate, throughout the entire fabrication of the concrete unit (prior to placement of concrete, during placement, and during curing). Refer to Construction Methods – Plant Fabrication, Temperature Monitoring. A record of the inspection shall be reported on the Fabricator’s Quality Control inspection report. Quality control inspection reports and documentation shall be provided to the Engineer upon request.

#### **E. Sampling and Testing.**

At a minimum, Quality Control personnel shall randomly sample each Sublot of concrete produced and perform slump, air content, temperature, and compressive strength testing to confirm that the production concrete conforms to the approved concrete mix design. A Sublot is defined as the concrete produced for each concrete unit. In addition to random sampling and testing, the Fabricator shall perform slump, air content, temperature, and compressive strength testing on concrete that has been retempered with admixtures or hold-back water during production.

#### **F. Certificate of Compliance.**

The Fabricator shall provide a Certificate of Compliance in accordance with Standard Specifications, Division I, Section 6.01, stating that QC test cylinders have achieved the design strength,  $f'_c$ . A Certificate of Compliance shall accompany each shipment and shall be presented to the Engineer or designee upon delivery to the site.

#### **Acceptance.**

The Owner may provided an Inspector to perform Acceptance inspection, sampling, and testing to ensure conformance to the Standard Specifications as modified by the requirements herein, during fabrication and erection. All concrete units shall be accepted based on the Inspector’s Acceptance inspection and testing results.

**A. Inspection.**

An Owner’s Representative (Inspector) may be assigned to perform Acceptance activities during the fabrication of the concrete units. The Fabricator shall allow the Inspector unrestricted access to the necessary areas of the plant facility during work hours.

At least seven (7) days prior to the scheduled start of fabrication, the Fabricator shall contact the Engineer to provide notice of the scheduled start date.

Acceptance inspection and testing at the plant facility is intended as a means of facilitating the work. It does not constitute final “acceptance” of the product and will not relieve the Fabricator or Contractor from any responsibility in regard to imperfect material or workmanship and the necessity for replacing or correcting non-conforming product.

**B. Sampling and Testing.**

The Owner is responsible for random Acceptance Testing, which may include casting a minimum of nine (9) cylinders (4 x 8 in.) per Sublot.

*MATERIALS*

**Materials.**

Materials shall meet the following specifications (if applicable):

General	M4.00.00
Portland Cement	M4.01.0
Blended Hydraulic Cements	M4.01.1
Fly Ash	M4.01.2
Cement Concrete	M4.02.00
Cement	M4.02.01
Cement Mortar	M4.02.15
Aggregates	M4.02.02
Lightweight Aggregates	M4.02.03
Water	M4.02.04
Cement Concrete Additives	M4.02.05
Mortar for Filling Keyways	M4.04.0
Slag	AASHTO M 302
High Performance Cement Concrete	M4.06.1
Reinforcing Bars	M8.01.0
Epoxy Coated Reinforcing Bars.	M8.01.7
Strand Chuck	M8.15.0
Lifting Devices	PCI MNL-116

**Mix Design.**

A MassDOT-approved high-performance concrete mix with a minimum strength of 5,000 psi shall be used for the precast culvert and curtain walls. Concrete shall be controlled, mixed, and handled as specified in the pertinent portions of Standard Specifications, and shall conform to the requirements specified herein. The mix design compressive strength, aggregate size, and cement content shall be prequalified by MassDOT.

The mix shall be formulated with calcium nitrite corrosion inhibitors, which shall be added at a rate of 3 gallons per cubic yard of concrete in order to increase the active corrosion threshold to 9.9 pounds of chloride per cubic yard of concrete at the reinforcing bar level.

All concrete used for concrete units shall be batched by the Fabricator producing the concrete units. The use of ready-mix concrete batched by others shall not be permitted.

**Steel Reinforcement.**

The minimum steel yield strength shall be 60,000 psi, unless otherwise noted on the shop drawings.

All reinforcing steel for the precast elements shall be fabricated and placed in accordance with the detailed shop drawings submitted by the manufacturer.

Reinforcement shall consist of welded wire fabric conforming to ASTM Specification A 1064 or deformed billet steel bars conforming to ASTM Specification A 615, Grade 60. Longitudinal distribution reinforcement may consist of welded wire fabric or deformed billet-steel bars.

All reinforcing steel bars shall be epoxy coated in accordance with ASTM A775. All welded wire fabric shall be epoxy coated in accordance with ASTM A884.

**Steel Hardware.**

Bolts and threaded rods shall conform to ASTM A 307. Nuts shall conform to AASHTO M292 (ASTM A194) Grade 2H. All bolts, threaded rods and nuts used shall be mechanically zinc coated in accordance with ASTM B695 Class 50.

Structural Steel for connection plates and plate washers shall conform to AASHTO M 270 (ASTM A 709) Grade 36 and shall be hot dip galvanized as per AASHTO M111 (ASTM A123).

Reinforcing bar splices shall be made using the Dowel Bar Splicer System as manufactured by Dayton Superior, and shall consist of the Dowel Bar Splicer (DB-SAE) and Dowel-In (DI).

**Threaded Inserts.**

Threaded inserts shall be hot dip galvanized or be made of stainless steel. The number of threaded inserts shall be minimized, and the inserts shall not come in contact with the reinforcing steel.

*CONSTRUCTION METHODS – PLANT FABRICATION*

**Drawings.**

Contractor shall submit scaled shop drawings to the Engineer for review and approval. The Contractor shall not order materials or begin work before receiving approved shop drawings.

**Reinforcement.**

The reinforcing bars shall be installed in accordance with Section 901.62 of the Standard Specifications, including tolerances for cover and horizontal spacing of bars. Components of mechanical reinforcing bar splicers shall be set with the tolerances shown on the plans. The reinforcing bars and mechanical reinforcing bar splicers shall be assembled into a rigid cage that will maintain its shape in the form and which will not allow individual reinforcing bars to move during the placement of concrete. This cage shall be secured in the form so that the clearances to all faces of the concrete, as shown on the plans, shall be maintained.

**Tolerances.**

Fabrication shall comply with tolerances specified on the plans. Tolerances for steel reinforcement placement shall be in accordance with 901.62. In the absence of specifications on the plans, tolerances shall comply with the latest version of the PCI MNL 135, Precast Tolerance Manual.

**Forms.**

Concrete shall be cast in rigidly constructed forms, which will maintain the concrete units within specified tolerances to the shapes, lines and dimensions shown on the approved fabrication drawings. Forms shall be constructed from flat, smooth, non-absorbent material and shall be sufficiently tight to prevent the leakage of mortar. When wood forms are used, all faces in contact with the concrete shall be laminated or coated with a non-absorbent material. Any defects or damage of more than minor nature, due to form work, stripping or handling, shall be cause for rejection, as defined in Repairs and Replacement, unless approved for repair through the NCR process.

If threaded inserts are cast into the units for support of formwork, the inserts shall be recessed a minimum of 1 inch and shall be plugged after use with a grout of the same color as that of the precast cement concrete.

**Mixing of Concrete.**

The concrete shall be proportioned as specified in M4.02.06 and mixed in accordance with M4.02.10. Copies of batch tickets shall be provided to the Engineer.

**Placement of Concrete.**

In no event shall time to placement exceed 90 minutes. If the concrete mix is retempered during production, then additional sampling and testing shall be performed according to the Quality Assurance, Fabricator Quality Control, E. Sampling and Testing section, above.

During placement, the concrete shall maintain a minimum temperature of 50°F and a maximum temperature of 90°F. All items encased in the concrete shall be accurately placed in the position shown on the Plans and firmly held during the placing and setting of the concrete. Clearance from the forms shall be maintained by supports, spacers, or hangers and shall be of approved shape and dimension. Delays or shutdowns of over 30 minutes shall not be allowed during the continuous filling of individual forms.

**Consolidation of Concrete.**

Suitable means shall be used for placing concrete to prevent segregation or displacement of reinforcing steel or forms. The concrete shall be thoroughly consolidated by external or internal vibrators or a combination of both. Vibrators shall not be used to move concrete within the forms. Vibrators shall be used as specified in 901.63C and as directed by the Engineer. Concrete shall be placed and consolidated in a way that minimizes the presence of surface voids or bug holes on the formed surfaces.

If using Self-Consolidating Concrete, little or no vibration should be used to avoid segregation of the plastic concrete mixture.

**Temperature Monitoring.**

The Fabricator shall limit the maximum concrete temperature to 158°F during curing, and control the temperature of the concrete to ensure that it does not fall below 50°F before 80% $f_c$  is reached and 40°F before 100% $f_c$  is reached. Concrete temperature refers to the maximum and minimum internal temperature of the concrete. Temperatures shall be monitored using continuously recording temperature measuring devices that are accurate to within 1.8°F. At least two temperature sensors (thermocouples) shall be positioned to record the maximum and minimum anticipated concrete temperatures. The anticipated minimum temperature shall be measured with one or more thermocouples at a distance no greater than 2" from the surface of the thinnest section. The anticipated maximum temperature shall be measured with one or more thermocouples at the center of the thickest section. Proposed temperature measurement locations shall be submitted to the Engineer for approval. Temperature recording devices shall be located within the curing enclosure and calibrated as required by PCI MNL-116 Section 4.18.4. The Fabricator shall measure and record internal concrete temperatures ( $T_i$ ) as follows:

- (a) Prior to placement of concrete to verify that  $T_i \geq 50^\circ\text{F}$ .
- (b) Immediately after placement to verify that  $T_i \geq 50^\circ\text{F}$  is maintained.
- (c) During curing at regular intervals not to exceed one hour until verification of  $f'_c$  and concrete has cooled to within  $40^\circ\text{F}$  of the temperature of the ambient storage location.

Maximum heat increase and cool down rates shall comply with PCI MNL-116, Section 4.19. The Contractor shall furnish temperature logs recorded at a minimum frequency of once per hour to the Inspector as required, with each post-pour QC inspection report.

### **Methods of Curing.**

During the concrete placement and curing cycle, the Fabricator shall conform to the curing requirements as specified in the following methods.

#### **A. Water Spray Curing.**

The curing cycle shall begin immediately after the concrete has hardened sufficiently to prevent surface damage from the water spray and end after a period of at least 5 days and  $80\%f'_c$  is attained. All exposed surfaces of the precast concrete unit shall be kept wet with a continuous fine spray of water during this period. All surfaces exposed by form removal shall receive water spray curing for the remainder of the curing period.

#### **B. Saturated Cover Curing.**

The curing cycle shall begin immediately after the concrete has hardened sufficiently to prevent surface damage from the saturated burlap and end after a period of at least 3 days and  $80\%f'_c$  is attained. All exposed concrete surfaces on the concrete unit shall be covered with water-saturated burlap during this period. All surfaces exposed by form removal shall be covered with water-saturated burlap for the remainder of the curing period.

#### **C. Membrane Curing Compound.**

This curing method shall be accomplished using a membrane curing compound approved by the Engineer meeting the requirements of ASTM C 1315, Type I, Class A. Membrane curing compound shall be applied in accordance with manufacturer's recommendations. All exposed concrete surfaces on the concrete beam shall be coated after the concrete has been finished and immediately after the water sheen has disappeared from the surface of the concrete. The curing compound shall remain in place for a period of not less than 7 days and shall be removed as described below when required. Concrete surfaces receiving curing compound shall not fall below  $50^\circ\text{F}$  for a minimum duration of 8 hours after application of the curing compound or as specified by the manufacturer's recommendations, whichever is greater. The concrete temperature of the concrete unit shall not fall below  $40^\circ\text{F}$  until  $f'_c$  is achieved.

When forms are removed prior to completion of the 7-day period, curing compound shall be applied to the exposed concrete within 30 minutes so that all surfaces have been covered with curing compound and edges of existing compound are overlapped to ensure a continuous coating. The curing compound shall remain in place for the remainder of the 7-day period.

If patching or finishing repairs are to be performed prior to the application of curing compound, the concrete beam shall be covered temporarily with curing covers until the repairs are completed and the curing compound is applied. Only areas being repaired may be uncovered during this period. While the covers are removed to facilitate the patching process, the work shall continue uninterrupted. If for any reason the work is interrupted, the covers shall be replaced until the work continues and is completed, at which time the curing compound shall be applied to the repaired area.

Curing compound shall be removed by blast-cleaning from any concrete surface that is to have plastic concrete, grout or mortar bonded to it. These surfaces shall be further blast-cleaned to remove the cement matrix down to exposed aggregate to ensure proper bonding to the mating concrete, grout or mortar. The

method used to remove the curing compound shall not damage the reinforcement and coating. Membrane curing will not be permitted on any concrete surface that will have a penetrating or coating type treatment such as a sealer, stain, or waterproofing membrane applied to it.

#### **D. Curing Covers.**

Curing covers shall be Plastic Coated Fiber Blankets or Polyethylene Curing Covers. Proposed curing covers shall be submitted for approval to the Designer of Record. The curing cycle shall begin immediately after the concrete has hardened sufficiently to prevent surface damage from the curing covers and end after a period of at least 3 days and 80% $f'_c$  is attained. All exposed concrete surfaces on the concrete unit shall be covered with curing covers during this period. The Fabricator shall ensure that the surface of the concrete remains wet until the covers are placed. If forms are removed prior to completion of the curing cycle, curing covers shall be placed over the exposed concrete for the remainder of the curing cycle. Adjoining covers shall overlap not less than 12 inches. All edges of the covers shall be secured to maintain a moist environment (100% minimum relative humidity). The concrete temperature of the concrete unit shall not be less than 50°F until completion of the curing cycle.

#### **E. Accelerated Curing.**

Accelerated Curing shall comply with PCI MNL-116 as modified herein. Accelerated curing shall maintain 95% relative humidity during the curing phases. Curing shall be accomplished in the following phases using steam or radiant heat with moisture. The curing cycle shall begin upon completion of the Preset Period and end upon completion of the Accelerated Temperature Period.

##### **1. Preset Period.**

Accelerated curing of the concrete unit shall begin after initial set of the concrete. The Fabricator shall determine the time of initial set according to AASHTO T 197 specifications for the full range of concrete temperatures proposed to be used during initial set. The temperature of concrete shall not exceed 104°F during initial set.

##### **2. Ramp-up Period.**

Once initial set is complete, the concrete temperature shall rise at a rate not to exceed 36°F per hour.

##### **3. Accelerated Temperature Period.**

Once the ramp-up period is complete, the concrete unit shall be cured in a moist environment at a controlled elevated temperature of at least 120°F for no less than 8 hours and no more than 48 hours, and may terminate once a minimum of 8 hours and 80% $f'_c$  is attained. The maximum concrete temperature shall not exceed 158°F at any time.

##### **4. Ramp-down Period.**

The concrete temperature shall be reduced at a rate not to exceed 50°F per hour until the concrete temperature is within 40°F of the ambient temperature outside of the curing enclosure.

#### **Storage and Handling.**

The concrete unit may be exposed to temperatures below freezing (32°F) when the chosen curing cycle has been completed, provided that the concrete units are protected from precipitation with polyethylene curing covers until they achieve 100% of  $f'_c$ . Concrete units shall maintain a minimum internal concrete temperature of 40°F until 100%  $f'_c$  is attained.

Units damaged during handling and storage will be repaired or replaced at Owner's direction at no cost to the Owner.

Units shall be lifted at the designated points by approved lifting devices embedded in the concrete and in accordance with proper lifting and handling procedures.

Storage areas shall be smooth and well compacted to prevent damage due to differential settlement. Units shall be supported on the ground by means of continuous blocking.

Units shall be loaded on a trailer with blocking as described above. Shock-absorbing cushioning material shall be used at all bearing points during transportation of the concrete units. Blocking shall be provided at all locations of tie-down straps. Units stored prior to shipment shall be inspected by the Contractor prior to being delivered to the site to identify damage that would be cause for repair or rejection.

### **Repairs and Replacement.**

In the event defects are identified, they shall be classified in the following categories and a non-conformance report (NCR) shall be submitted to the Engineer for review. Defects in all categories shall be documented by plant Quality Control personnel and made available to the Engineer upon request. Any required repairs shall utilize materials listed on the MassDOT QCML.

Where noted, defects shall be repaired according to the PCI Northeast Region Guidelines for Resolution of Non-Conformances in Precast Concrete Bridge Elements, Report Number PCINE-18-RNPCBE.

#### **1. Category 1, Surface Defects.**

Category 1 defects do not need to be repaired, and an NCR does not need to be filed. Surface defects are defined as the following:

- Surface voids or bug holes that are less than 5/8-inch in diameter and less than 1/4-inch deep, except when classified as Category 4
- cracks less than or equal to 0.006" wide

#### **2. Category 2, Minor Defects.**

Category 2 defects shall be repaired, but an NCR does not need to be filed. Minor defects are defined as the following:

- Spalls, honeycombing, surface voids that are less than 2 inches deep and have no dimension greater than 12 inches
- Cracks less than or equal to 0.016"

Minor defects shall be repaired according to PCINE-18-RNPCBE. Cracks shall be sealed according to the PCI Repair Procedure #14 in PCINE-18-RNPCBE.

#### **3. Category 3, Major Defects.**

For Category 3 defects, the Fabricator shall prepare an NCR that documents the defect and describes the proposed repair procedure. The NCR shall be submitted to the Engineer for approval prior to performing the repair. Major defects are defined as the following:

- Spalls, honeycombing and surface voids that are deeper than 2 inches or have any dimension greater than 12 inches, when measured along a straight line
- Concentrated area of defects consisting of four or more Category 2 Defects within a 4-square foot area
- Exposed reinforcing steel not so detailed on approved shop drawings
- Cracks greater than 0.016" and less than 0.060" in width
- Bearing area spalls with dimensions not exceeding 3 inches

Upon the Engineer's approval, defects and cracks shall be repaired according to PCINE-18-RNPCBE and this specification. All repairs shall be completed at the expense of the Contractor.

#### **4. Category 4, Rejectable Defects.**

Rejectable defects as determined by the Engineer may be cause for rejection. Fabricator may submit an NCR with a proposed repair procedure, requesting approval. Some rejectable defects are defined as the following:

- Surface defects on more than 5% of the surface area which will be exposed to view after installation
- Minor defects that in total make up more than 5% of the surface area of the concrete beam
- Cracks greater than 0.060" in width
- Concrete units fabricated outside of the specified tolerances
- Compressive strength testing that does not meet the specified Design Strength,  $f'_c$

#### **Delivery.**

Concrete units shall be stored for a minimum of 7 days after cast date, and prior to delivery the QC Compressive Strength Results shall reach Design Strength,  $f'_c$ . A Certificate of Compliance shall be generated as described under *Quality Control*, above, prior to delivery. Prior to delivery, all NCRs shall be signed off by the Engineer and Quality Control Manager. The Engineer and Quality Control Manager shall verify that any required corrective action has been completed.

The Quality Control Inspection Report shall be signed by the Plant Quality Control Manager certifying that the concrete unit(s) have been fabricated in accordance with the specifications and the Plant Quality Manual. The Quality Control Inspection Report shall be provided to the Engineer prior to delivery.

The Certificate of Compliance shall accompany each shipment and shall be presented to the Engineer or designee upon delivery to the site. The Contractor shall inspect concrete units upon receipt at the site. Units damaged during delivery shall be repaired or replaced at the Owner's direction at no cost to the Owner.

### *CONSTRUCTION METHODS – FIELD CONSTRUCTION*

#### **General.**

All of the Contractor's field personnel who shall be involved in the erection and assembly of the concrete units shall have knowledge of and follow the approved Erection Procedure and Assembly Plan.

#### **Erection Procedure and Assembly Plan.**

Prior to the erection of the culvert, the Contractor shall submit an Erection Procedure and Assembly Plan for approval by the Engineer. This submittal shall include computations and drawings for the transport, hoisting, erection and handling of the units. The Erection Procedure and Assembly Plan shall be prepared and stamped by a Professional Engineer registered in the Commonwealth of Massachusetts with working knowledge of the Contractor's equipment, approved shop drawings, and materials to build the bridge. The Erection Procedure and Assembly Plan shall, at a minimum, include the following:

#### **Erection Procedure**

The Erection Procedure shall be prepared to conform to the requirements of 960.61, *Erection* and the applicable sections in Chapter 5 of the PCI Design Handbook for the handling, erection, and bracing requirements. At a minimum, the Erection Procedure shall provide:

- Minimum concrete compressive strength for handling the concrete units.
- Concrete stresses during handling, transport, and erection.
- Crane capacities, pick radii, sling geometry, and lifting hardware.
- Verification that the equipment can handle all pick loads and weights with the required factor of safety.
- Evaluation of construction sequence and evaluation of any geometric conflicts in the lifting of the concrete units.
- Design of crane supports including verification of subgrade for support.
- Location and design of all temporary bracing that will be required during erection.

### **Assembly Plan**

The Assembly Plan is a document prepared and submitted by the Contractor prior to the start of work which requires the Contractor to identify and detail the sequence of construction in accordance with the project schedule and which clearly identifies all stages of field construction. This document will be treated as a Construction Procedure and will be reviewed by the Engineer.

At a minimum, the Assembly Plan shall provide:

- Listing of the equipment, materials, and personnel including their assigned responsibilities that will be used to erect and assemble the concrete units on site.
- Documentation of all preparatory work necessary for moving personnel, equipment, supplies, and incidentals to the project site before beginning work.
- Detailed schedule showing the sequence of operations that the Contractor will follow to complete the field construction from setting working points and working lines to mortaring keyways and tensioning transverse ties or casting of closure pours as described below and as called for on the plans.
- Timeline and descriptions of Quality Control activities to be followed throughout the field construction operations including methods and procedures for controlling tolerance limits both horizontally and vertically.

### **Survey and Layout.**

Working points, working lines, and benchmark elevations shall be established prior to placement of the precast culvert units. The Contractor is responsible for field survey as necessary to complete the work. The Owner reserves the right to perform additional independent survey. If discrepancies are found, the Contractor may be required to verify previous survey data.

### **STEEL REINFORCEMENT FOR STRUCTURES – EPOXY COATED**

Work under this item shall include the supply and installation of reinforcing steel that is to be used for the proposed wingwalls and safety curbs. The work shall conform to the relevant provisions of Section 901 and M8.01.7 of the Standard Specifications.

### **METAL THRIE BEAM BRIDGE RAILING WITH HANDRAIL**

The work to be performed under this heading shall consist of the fabrication and installation of a Thrie Beam Bridge Rail with Handrail system. This item shall be fabricated by a MassDOT Approved Fabricator of Bridge Components (CPT). Work shall conform to the relevant provisions of Section 975, Metal Bridge Railings and Protective Screen, of the Supplemental Specifications to the Standard Specifications for Highways and Bridges and the following.

Thrie beam panels shall be double nested (2 layers) 12-gauge panels or 1 layer of 10-gauge panels and shall conform to AASHTO M 180 Class B. The posts, base plates, and thrie beam rail panels shall be galvanized

after fabrication in accordance with AASHTO M111. Cost for the handrail shall be considered incidental to this Item.

**SCHEDULE OF BASIS FOR PARTIAL PAYMENT**

At the time of bid, the Contractor shall submit on his/her proposal form a schedule of unit prices for the major component Sub-Items that make up Item 995.01 as well as his/her total bridge structure Lump Sum cost for Bridge Structure No. L-17-003. The bridge structure Lump Sum breakdown quantities provided in the proposal form are estimated and not guaranteed. The total of all partial payments to the Contractor shall equal the Lump Sum contract price regardless of the accuracy of the quantities furnished by the Engineer for the individual bridge components. The cost of labor and materials for any Item not listed but required to complete the work shall be considered incidental to Item 995. and no further compensation will be allowed. Sub-Item numbering is presented for information only in coordination with MassDOT Standard Nomenclature.

**995.01      Bridge No. L-17-003**

<b><u>Sub-Item</u></b>	<b><u>Description</u></b>	<b><u>QTY.</u></b>	<b><u>UNIT</u></b>	<b><u>PRICE</u></b>	<b><u>TOTAL</u></b>
904.3	5000 PSI, 3/4 INCH, 685 HP CEMENT CONCRETE FOR SAFETY CURBS	110	CY		
904.5	PRECAST CONCRETE BOX CULVERT AND CURTAIN WALLS	75	CY		
910.1	STEEL REINFORCEMENT FOR STRUCTURES - EPOXY COATED	14,560	LB		
975.8	METAL THRIE BEAM BRIDGE RAILING WITH HANDRAIL	102	FT		

**TOTAL LUMP SUM FOR ITEM 995.01 =**

**CONTRACT ALLOWANCE PAYMENT ITEMS**

The quantity to be paid for under these items shall be the actual amount paid by the Contractor to provide satisfactory police services and testing operations as stipulated and required. Any associated Contractor overhead costs and profit shall be considered incidental to the cost of the contract.

**ALLOWANCE ITEM 999.001**

**TRAFFIC POLICE**

The Contractor shall furnish police services where and when required to direct traffic on existing roadways where traffic is maintained.

The Contractor shall provide such police officers as may be deemed necessary by either the Engineer or the Town for the direction and control of all traffic traveling within and through the project area. The police officers shall be obtained from the Town Police Department as applicable. The police officers shall be paid by the Contractor at the prevailing rate of wages established by the Town.

**Allowance for Police Services**

An allowance for the furnishing of police services has been included in all bids. This allowance is determined by multiplying the number of hours estimated as necessary by the prevailing hourly rate of wages established for such services. The Contractor shall submit certified copies of itemized bills of services rendered for review and approval by the Engineer. The allowance will be adjusted to the actual amount paid for authorized and approved police services as stipulated and shall include other payments due to any legal requirements of the State and Federal governments.

**ALLOWANCE ITEM 999.300**

**MATERIALS INSPECTION, SAMPLING  
AND TESTING SERVICES**

*Allowance for Verification and Testing*

Materials inspection, sampling and testing services shall be provided by independent testing consultants or firms that shall be retained by the Contractor to ensure compliance with the Standard Specifications and these Special Provisions. These services will include, but are not limited to the following:

- Portland Cement Concrete Field Inspection and Testing

The firm(s) selected to provide these services must be pre-qualified by MassDOT in the discipline of Materials Inspection and Testing. The Contractor shall coordinate with the firm(s) and the Engineer as necessary while the work is ongoing to ensure that the appropriate materials inspection, sampling and testing is occurring. Test reports shall be provided to the Engineer with copies to the Contractor. Work on materials that fail to meet the requirements of these Special Provisions shall be promptly corrected by the Contractor in accordance with the standard specifications. The cost of tests that fail to show compliance will not be reimbursed to the Contractor. The Contractor shall be reimbursed under this allowance item for testing based on paid invoices from the independent testing consultant(s).

**\*\*\*END OF SPECIAL PROVISIONS\*\*\***

# **ATTACHMENT B**

# STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared By



Endorsed By



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# STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

## ARTICLE 1—DEFINITIONS AND TERMINOLOGY

### 1.01 *Defined Terms*

- A. Wherever used in the Bidding Requirements or Contract Documents, a term printed with initial capital letters, including the term's singular and plural forms, will have the meaning indicated in the definitions below. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
  2. *Agreement*—The written instrument, executed by Owner and Contractor, that sets forth the Contract Price and Contract Times, identifies the parties and the Engineer, and designates the specific items that are Contract Documents.
  3. *Application for Payment*—The document prepared by Contractor, in a form acceptable to Engineer, to request progress or final payments, and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
  4. *Bid*—The offer of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
  5. *Bidder*—An individual or entity that submits a Bid to Owner.
  6. *Bidding Documents*—The Bidding Requirements, the proposed Contract Documents, and all Addenda.
  7. *Bidding Requirements*—The Advertisement or invitation to bid, Instructions to Bidders, Bid Bond or other Bid security, if any, the Bid Form, and the Bid with any attachments.
  8. *Change Order*—A document which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, or other revision to the Contract, issued on or after the Effective Date of the Contract.
  9. *Change Proposal*—A written request by Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Contract.
  10. *Claim*
    - a. A demand or assertion by Owner directly to Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment of Contract Price or Contract Times; contesting an initial decision by Engineer concerning the

- requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer's decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or seeking other relief with respect to the terms of the Contract.
- b. A demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, contesting Engineer's decision regarding a Change Proposal, or seeking resolution of a contractual issue that Engineer has declined to address.
  - c. A demand or assertion by Owner or Contractor, duly submitted in compliance with the procedural requirements set forth herein, made pursuant to Paragraph 12.01.A.4, concerning disputes arising after Engineer has issued a recommendation of final payment.
  - d. A demand for money or services by a third party is not a Claim.
11. *Constituent of Concern*—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), lead-based paint (as defined by the HUD/EPA standard), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to Laws and Regulations regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.
  12. *Contract*—The entire and integrated written contract between Owner and Contractor concerning the Work.
  13. *Contract Documents*—Those items so designated in the Agreement, and which together comprise the Contract.
  14. *Contract Price*—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents.
  15. *Contract Times*—The number of days or the dates by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.
  16. *Contractor*—The individual or entity with which Owner has contracted for performance of the Work.
  17. *Cost of the Work*—See Paragraph 13.01 for definition.
  18. *Drawings*—The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor.
  19. *Effective Date of the Contract*—The date, indicated in the Agreement, on which the Contract becomes effective.
  20. *Electronic Document*—Any Project-related correspondence, attachments to correspondence, data, documents, drawings, information, or graphics, including but not limited to Shop Drawings and other Submittals, that are in an electronic or digital format.
  21. *Electronic Means*—Electronic mail (email), upload/download from a secure Project website, or other communications methods that allow: (a) the transmission or communication of Electronic Documents; (b) the documentation of transmissions, including sending and receipt; (c) printing of the transmitted Electronic Document by the

recipient; (d) the storage and archiving of the Electronic Document by sender and recipient; and (e) the use by recipient of the Electronic Document for purposes permitted by this Contract. Electronic Means does not include the use of text messaging, or of Facebook, Twitter, Instagram, or similar social media services for transmission of Electronic Documents.

22. *Engineer*—The individual or entity named as such in the Agreement.
23. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but does not change the Contract Price or the Contract Times.
24. *Hazardous Environmental Condition*—The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto.
  - a. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated into the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, is not a Hazardous Environmental Condition.
  - b. The presence of Constituents of Concern that are to be removed or remediated as part of the Work is not a Hazardous Environmental Condition.
  - c. The presence of Constituents of Concern as part of the routine, anticipated, and obvious working conditions at the Site, is not a Hazardous Environmental Condition.
25. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and binding decrees, resolutions, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
26. *Liens*—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.
27. *Milestone*—A principal event in the performance of the Work that the Contract requires Contractor to achieve by an intermediate completion date, or by a time prior to Substantial Completion of all the Work.
28. *Notice of Award*—The written notice by Owner to a Bidder of Owner's acceptance of the Bid.
29. *Notice to Proceed*—A written notice by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work.
30. *Owner*—The individual or entity with which Contractor has contracted regarding the Work, and which has agreed to pay Contractor for the performance of the Work, pursuant to the terms of the Contract.
31. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising Contractor's plan to accomplish the Work within the Contract Times.
32. *Project*—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.

33. *Resident Project Representative*—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative (RPR) includes any assistants or field staff of Resident Project Representative.
34. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.
35. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer’s review of the submittals.
36. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor’s Applications for Payment.
37. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.
38. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements, and such other lands or areas furnished by Owner which are designated for the use of Contractor.
39. *Specifications*—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.
40. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work.
41. *Submittal*—A written or graphic document, prepared by or for Contractor, which the Contract Documents require Contractor to submit to Engineer, or that is indicated as a Submittal in the Schedule of Submittals accepted by Engineer. Submittals may include Shop Drawings and Samples; schedules; product data; Owner-delegated designs; sustainable design information; information on special procedures; testing plans; results of tests and evaluations, source quality-control testing and inspections, and field or Site quality-control testing and inspections; warranties and certifications; Suppliers’ instructions and reports; records of delivery of spare parts and tools; operations and maintenance data; Project photographic documentation; record documents; and other such documents required by the Contract Documents. Submittals, whether or not approved or accepted by Engineer, are not Contract Documents. Change Proposals, Change Orders, Claims, notices, Applications for Payment, and requests for interpretation or clarification are not Submittals.
42. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms “substantially complete” and “substantially completed” as applied to all or part of the Work refer to Substantial Completion of such Work.

43. *Successful Bidder*—The Bidder to which the Owner makes an award of contract.
44. *Supplementary Conditions*—The part of the Contract that amends or supplements these General Conditions.
45. *Supplier*—A manufacturer, fabricator, supplier, distributor, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or a Subcontractor.
46. *Technical Data*
- a. Those items expressly identified as Technical Data in the Supplementary Conditions, with respect to either (1) existing subsurface conditions at or adjacent to the Site, or existing physical conditions at or adjacent to the Site including existing surface or subsurface structures (except Underground Facilities) or (2) Hazardous Environmental Conditions at the Site.
  - b. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then Technical Data is defined, with respect to conditions at the Site under Paragraphs 5.03, 5.04, and 5.06, as the data contained in boring logs, recorded measurements of subsurface water levels, assessments of the condition of subsurface facilities, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical, environmental, or other Site or facilities conditions report prepared for the Project and made available to Contractor.
  - c. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data, and instead Underground Facilities are shown or indicated on the Drawings.
47. *Underground Facilities*—All active or not-in-service underground lines, pipelines, conduits, ducts, encasements, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or systems at the Site, including but not limited to those facilities or systems that produce, transmit, distribute, or convey telephone or other communications, cable television, fiber optic transmissions, power, electricity, light, heat, gases, oil, crude oil products, liquid petroleum products, water, steam, waste, wastewater, storm water, other liquids or chemicals, or traffic or other control systems. An abandoned facility or system is not an Underground Facility.
48. *Unit Price Work*—Work to be paid for on the basis of unit prices.
49. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction; furnishing, installing, and incorporating all materials and equipment into such construction; and may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.
50. *Work Change Directive*—A written directive to Contractor issued on or after the Effective Date of the Contract, signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work.

## 1.02 Terminology

- A. The words and terms discussed in Paragraphs 1.02.B, C, D, and E are not defined terms that require initial capital letters, but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.
- B. *Intent of Certain Terms or Adjectives:* The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Article 10 or any other provision of the Contract Documents.
- C. *Day:* The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.
- D. *Defective:* The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
1. does not conform to the Contract Documents;
  2. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
  3. has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 15.03 or Paragraph 15.04).
- E. *Furnish, Install, Perform, Provide*
1. The word “furnish,” when used in connection with services, materials, or equipment, means to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
  2. The word “install,” when used in connection with services, materials, or equipment, means to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
  3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, means to furnish and install said services, materials, or equipment complete and ready for intended use.
  4. If the Contract Documents establish an obligation of Contractor with respect to specific services, materials, or equipment, but do not expressly use any of the four words “furnish,” “install,” “perform,” or “provide,” then Contractor shall furnish and install said services, materials, or equipment complete and ready for intended use.

- F. *Contract Price or Contract Times*: References to a change in “Contract Price or Contract Times” or “Contract Times or Contract Price” or similar, indicate that such change applies to (1) Contract Price, (2) Contract Times, or (3) both Contract Price and Contract Times, as warranted, even if the term “or both” is not expressed.
- G. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

## **ARTICLE 2—PRELIMINARY MATTERS**

### **2.01 *Delivery of Performance and Payment Bonds; Evidence of Insurance***

- A. *Performance and Payment Bonds*: When Contractor delivers the signed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner the performance bond and payment bond (if the Contract requires Contractor to furnish such bonds).
- B. *Evidence of Contractor’s Insurance*: When Contractor delivers the signed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner, with copies to each additional insured (as identified in the Contract), the certificates, endorsements, and other evidence of insurance required to be provided by Contractor in accordance with Article 6, except to the extent the Supplementary Conditions expressly establish other dates for delivery of specific insurance policies.
- C. *Evidence of Owner’s Insurance*: After receipt of the signed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor, with copies to each additional insured (as identified in the Contract), the certificates and other evidence of insurance required to be provided by Owner under Article 6.

### **2.02 *Copies of Documents***

- A. Owner shall furnish to Contractor four printed copies of the Contract (including one fully signed counterpart of the Agreement), and one copy in electronic portable document format (PDF). Additional printed copies will be furnished upon request at the cost of reproduction.
- B. Owner shall maintain and safeguard at least one original printed record version of the Contract, including Drawings and Specifications signed and sealed by Engineer and other design professionals. Owner shall make such original printed record version of the Contract available to Contractor for review. Owner may delegate the responsibilities under this provision to Engineer.

### **2.03 *Before Starting Construction***

- A. *Preliminary Schedules*: Within 10 days after the Effective Date of the Contract (or as otherwise required by the Contract Documents), Contractor shall submit to Engineer for timely review:
  - 1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract;
  - 2. a preliminary Schedule of Submittals; and
  - 3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work

into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.04 *Preconstruction Conference; Designation of Authorized Representatives*

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work, and to discuss the schedules referred to in Paragraph 2.03.A, procedures for handling Shop Drawings, Samples, and other Submittals, processing Applications for Payment, electronic or digital transmittals, and maintaining required records.
- B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit and receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.05 *Acceptance of Schedules*

- A. At least 10 days before submission of the first Application for Payment a conference, attended by Contractor, Engineer, and others as appropriate, will be held to review the schedules submitted in accordance with Paragraph 2.03.A. No progress payment will be made to Contractor until acceptable schedules are submitted to Engineer.
  - 1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.
  - 2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
  - 3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to the component parts of the Work.
  - 4. If a schedule is not acceptable, Contractor will have an additional 10 days to revise and resubmit the schedule.

2.06 *Electronic Transmittals*

- A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may send, and shall accept, Electronic Documents transmitted by Electronic Means.
- B. If the Contract does not establish protocols for Electronic Means, then Owner, Engineer, and Contractor shall jointly develop such protocols.
- C. Subject to any governing protocols for Electronic Means, when transmitting Electronic Documents by Electronic Means, the transmitting party makes no representations as to long-term compatibility, usability, or readability of the Electronic Documents resulting from the recipient's use of software application packages, operating systems, or computer hardware differing from those used in the drafting or transmittal of the Electronic Documents.

## ARTICLE 3—CONTRACT DOCUMENTS: INTENT, REQUIREMENTS, REUSE

### 3.01 *Intent*

- A. The Contract Documents are complementary; what is required by one Contract Document is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents.
- C. Unless otherwise stated in the Contract Documents, if there is a discrepancy between the electronic versions of the Contract Documents (including any printed copies derived from such electronic versions) and the printed record version, the printed record version will govern.
- D. The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.
- E. Engineer will issue clarifications and interpretations of the Contract Documents as provided herein.
- F. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation will be deemed stricken, and all remaining provisions will continue to be valid and binding upon Owner and Contractor, which agree that the Contract Documents will be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.
- G. Nothing in the Contract Documents creates:
  - 1. any contractual relationship between Owner or Engineer and any Subcontractor, Supplier, or other individual or entity performing or furnishing any of the Work, for the benefit of such Subcontractor, Supplier, or other individual or entity; or
  - 2. any obligation on the part of Owner or Engineer to pay or to see to the payment of any money due any such Subcontractor, Supplier, or other individual or entity, except as may otherwise be required by Laws and Regulations.

### 3.02 *Reference Standards*

- A. *Standards Specifications, Codes, Laws and Regulations*
  - 1. Reference in the Contract Documents to standard specifications, manuals, reference standards, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, means the standard specification, manual, reference standard, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Contract if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
  - 2. No provision of any such standard specification, manual, reference standard, or code, and no instruction of a Supplier, will be effective to change the duties or responsibilities of Owner, Contractor, or Engineer from those set forth in the part of the Contract Documents prepared by or for Engineer. No such provision or instruction shall be effective to assign to Owner or Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility

inconsistent with the provisions of the part of the Contract Documents prepared by or for Engineer.

### 3.03 *Reporting and Resolving Discrepancies*

#### A. *Reporting Discrepancies*

1. *Contractor's Verification of Figures and Field Measurements:* Before undertaking each part of the Work, Contractor shall carefully study the Contract Documents, and check and verify pertinent figures and dimensions therein, particularly with respect to applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy that Contractor discovers, or has actual knowledge of, and shall not proceed with any Work affected thereby until the conflict, error, ambiguity, or discrepancy is resolved by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract issued pursuant to Paragraph 11.01.
2. *Contractor's Review of Contract Documents:* If, before or during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) actual field conditions, (c) any standard specification, manual, reference standard, or code, or (d) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 7.15) until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract issued pursuant to Paragraph 11.01.
3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

#### B. *Resolving Discrepancies*

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the part of the Contract Documents prepared by or for Engineer take precedence in resolving any conflict, error, ambiguity, or discrepancy between such provisions of the Contract Documents and:
  - a. the provisions of any standard specification, manual, reference standard, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference as a Contract Document); or
  - b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

### 3.04 *Requirements of the Contract Documents*

- A. During the performance of the Work and until final payment, Contractor and Owner shall submit to the Engineer in writing all matters in question concerning the requirements of the Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Contract Documents, as soon as possible after such matters arise. Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work.

- B. Engineer will, with reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Contract Documents. Engineer's written clarification, interpretation, or decision will be final and binding on Contractor, unless it appeals by submitting a Change Proposal, and on Owner, unless it appeals by filing a Claim.
- C. If a submitted matter in question concerns terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work under the Contract Documents, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, then Engineer will promptly notify Owner and Contractor in writing that Engineer is unable to provide a decision or interpretation. If Owner and Contractor are unable to agree on resolution of such a matter in question, either party may pursue resolution as provided in Article 12.

### 3.05 *Reuse of Documents*

- A. Contractor and its Subcontractors and Suppliers shall not:
  - 1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media versions, or reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer; or
  - 2. have or acquire any title or ownership rights in any other Contract Documents, reuse any such Contract Documents for any purpose without Owner's express written consent, or violate any copyrights pertaining to such Contract Documents.
- B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein precludes Contractor from retaining copies of the Contract Documents for record purposes.

## **ARTICLE 4—COMMENCEMENT AND PROGRESS OF THE WORK**

### 4.01 *Commencement of Contract Times; Notice to Proceed*

- A. The Contract Times will commence to run on the 30th day after the Effective Date of the Contract or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Contract. In no event will the Contract Times commence to run later than the 60th day after the day of Bid opening or the 30th day after the Effective Date of the Contract, whichever date is earlier.

### 4.02 *Starting the Work*

- A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work may be done at the Site prior to such date.

### 4.03 *Reference Points*

- A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the

established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

#### 4.04 *Progress Schedule*

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.05 as it may be adjusted from time to time as provided below.
  - 1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.05) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times.
  - 2. Proposed adjustments in the Progress Schedule that will change the Contract Times must be submitted in accordance with the requirements of Article 11.
- B. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work will be delayed or postponed pending resolution of any disputes or disagreements, or during any appeal process, except as permitted by Paragraph 16.04, or as Owner and Contractor may otherwise agree in writing.

#### 4.05 *Delays in Contractor's Progress*

- A. If Owner, Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times.
- B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.
- C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. Such an adjustment will be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:
  - 1. Severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;
  - 2. Abnormal weather conditions;
  - 3. Acts or failures to act of third-party utility owners or other third-party entities (other than those third-party utility owners or other third-party entities performing other work at or adjacent to the Site as arranged by or under contract with Owner, as contemplated in Article 8); and
  - 4. Acts of war or terrorism.

- D. Contractor's entitlement to an adjustment of Contract Times or Contract Price is limited as follows:
1. Contractor's entitlement to an adjustment of the Contract Times is conditioned on the delay, disruption, or interference adversely affecting an activity on the critical path to completion of the Work, as of the time of the delay, disruption, or interference.
  2. Contractor shall not be entitled to an adjustment in Contract Price for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor. Such a concurrent delay by Contractor shall not preclude an adjustment of Contract Times to which Contractor is otherwise entitled.
  3. Adjustments of Contract Times or Contract Price are subject to the provisions of Article 11.
- E. Each Contractor request or Change Proposal seeking an increase in Contract Times or Contract Price must be supplemented by supporting data that sets forth in detail the following:
1. The circumstances that form the basis for the requested adjustment;
  2. The date upon which each cause of delay, disruption, or interference began to affect the progress of the Work;
  3. The date upon which each cause of delay, disruption, or interference ceased to affect the progress of the Work;
  4. The number of days' increase in Contract Times claimed as a consequence of each such cause of delay, disruption, or interference; and
  5. The impact on Contract Price, in accordance with the provisions of Paragraph 11.07.
- Contractor shall also furnish such additional supporting documentation as Owner or Engineer may require including, where appropriate, a revised progress schedule indicating all the activities affected by the delay, disruption, or interference, and an explanation of the effect of the delay, disruption, or interference on the critical path to completion of the Work.
- F. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5, together with the provisions of Paragraphs 4.05.D and 4.05.E.
- G. Paragraph 8.03 addresses delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.

**ARTICLE 5—SITE; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS**

5.01 *Availability of Lands*

- A. Owner shall furnish the Site. Owner shall notify Contractor in writing of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work.

- B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which permanent improvements are to be made and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

5.02 *Use of Site and Other Areas*

A. *Limitation on Use of Site and Other Areas*

1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas, or to improvements, structures, utilities, or similar facilities located at such adjacent lands or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.
  2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.13, or otherwise; (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or in a court of competent jurisdiction; and (c) to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from and against any such claim, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused directly or indirectly, in whole or in part by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.
- B. *Removal of Debris During Performance of the Work:* During the progress of the Work the Contractor shall keep the Site and other adjacent areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris will conform to applicable Laws and Regulations.
  - C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site and adjacent areas all tools, appliances, construction equipment

and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

- D. *Loading of Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent structures or land to stresses or pressures that will endanger them.

### 5.03 *Subsurface and Physical Conditions*

- A. *Reports and Drawings:* The Supplementary Conditions identify:

1. Those reports of explorations and tests of subsurface conditions at or adjacent to the Site that contain Technical Data;
2. Those drawings of existing physical conditions at or adjacent to the Site, including those drawings depicting existing surface or subsurface structures at or adjacent to the Site (except Underground Facilities), that contain Technical Data; and
3. Technical Data contained in such reports and drawings.

- B. *Underground Facilities:* Underground Facilities are shown or indicated on the Drawings, pursuant to Paragraph 5.05, and not in the drawings referred to in Paragraph 5.03.A. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data.

- C. *Reliance by Contractor on Technical Data:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely upon the accuracy of the Technical Data as defined in Paragraph 1.01.A.46.b.

- D. *Limitations of Other Data and Documents:* Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto;
2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings;
3. the contents of other Site-related documents made available to Contractor, such as record drawings from other projects at or adjacent to the Site, or Owner's archival documents concerning the Site; or
4. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions, or information.

#### 5.04 *Differing Subsurface or Physical Conditions*

- A. *Notice by Contractor:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed at the Site:
1. is of such a nature as to establish that any Technical Data on which Contractor is entitled to rely as provided in Paragraph 5.03 is materially inaccurate;
  2. is of such a nature as to require a change in the Drawings or Specifications;
  3. differs materially from that shown or indicated in the Contract Documents; or
  4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except with respect to an emergency) until receipt of a written statement permitting Contractor to do so.

- B. *Engineer's Review:* After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine whether it is necessary for Owner to obtain additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.
- C. *Owner's Statement to Contractor Regarding Site Condition:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.
- D. *Early Resumption of Work:* If at any time Engineer determines that Work in connection with the subsurface or physical condition in question may resume prior to completion of Engineer's review or Owner's issuance of its statement to Contractor, because the condition in question has been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.
- E. *Possible Price and Times Adjustments*
1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, causes an increase or decrease in

Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

- a. Such condition must fall within any one or more of the categories described in Paragraph 5.04.A;
  - b. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03; and,
  - c. Contractor's entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 4.05.D and 4.05.E.
2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:
- a. Contractor knew of the existence of such condition at the time Contractor made a commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract, or otherwise;
  - b. The existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or
  - c. Contractor failed to give the written notice required by Paragraph 5.04.A.
3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, then any such adjustment will be set forth in a Change Order.
4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.
- F. *Underground Facilities; Hazardous Environmental Conditions*: Paragraph 5.05 governs rights and responsibilities regarding the presence or location of Underground Facilities. Paragraph 5.06 governs rights and responsibilities regarding Hazardous Environmental Conditions. The provisions of Paragraphs 5.03 and 5.04 are not applicable to the presence or location of Underground Facilities, or to Hazardous Environmental Conditions.

#### 5.05 *Underground Facilities*

- A. *Contractor's Responsibilities*: Unless it is otherwise expressly provided in the Supplementary Conditions, the cost of all of the following are included in the Contract Price, and Contractor shall have full responsibility for:
1. reviewing and checking all information and data regarding existing Underground Facilities at the Site;
  2. complying with applicable state and local utility damage prevention Laws and Regulations;

3. verifying the actual location of those Underground Facilities shown or indicated in the Contract Documents as being within the area affected by the Work, by exposing such Underground Facilities during the course of construction;
  4. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and
  5. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.
- B. *Notice by Contractor:* If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated on the Drawings, or was not shown or indicated on the Drawings with reasonable accuracy, then Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing regarding such Underground Facility.
- C. *Engineer's Review:* Engineer will:
1. promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated on the Drawings, or was not shown or indicated with reasonable accuracy;
  2. identify and communicate with the owner of the Underground Facility; prepare recommendations to Owner (and if necessary issue any preliminary instructions to Contractor) regarding the Contractor's resumption of Work in connection with the Underground Facility in question;
  3. obtain any pertinent cost or schedule information from Contractor; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and
  4. advise Owner in writing of Engineer's findings, conclusions, and recommendations.

During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.

- D. *Owner's Statement to Contractor Regarding Underground Facility:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.
- E. *Early Resumption of Work:* If at any time Engineer determines that Work in connection with the Underground Facility may resume prior to completion of Engineer's review or Owner's issuance of its statement to Contractor, because the Underground Facility in question and conditions affected by its presence have been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.
- F. *Possible Price and Times Adjustments*
1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, to the extent that any existing Underground Facility at the Site that was not shown

or indicated on the Drawings, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

- a. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03;
  - b. Contractor's entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 4.05.D and 4.05.E; and
  - c. Contractor gave the notice required in Paragraph 5.05.B.
2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, then any such adjustment will be set forth in a Change Order.
  3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.
  4. The information and data shown or indicated on the Drawings with respect to existing Underground Facilities at the Site is based on information and data (a) furnished by the owners of such Underground Facilities, or by others, (b) obtained from available records, or (c) gathered in an investigation conducted in accordance with the current edition of ASCE 38, Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data, by the American Society of Civil Engineers. If such information or data is incorrect or incomplete, Contractor's remedies are limited to those set forth in this Paragraph 5.05.F.

#### 5.06 *Hazardous Environmental Conditions at Site*

A. *Reports and Drawings:* The Supplementary Conditions identify:

1. those reports known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site;
2. drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and
3. Technical Data contained in such reports and drawings.

B. *Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely on the accuracy of the Technical Data as defined in Paragraph 1.01.A.46.b. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures

- of construction to be employed by Contractor, and safety precautions and programs incident thereto;
2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
  3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions or information.
- C. Contractor shall not be responsible for removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.
- D. Contractor shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.
- E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 7.15); and (3) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 5.06.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.
- F. Contractor shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Contractor either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.
- G. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, as a result of such Work stoppage, such special conditions under which Work is agreed to be resumed by Contractor, or any costs or expenses incurred in response to the Hazardous Environmental Condition, then within 30 days of Owner's written notice regarding the resumption of Work, Contractor may submit a Change Proposal, or Owner may impose a set-off. Entitlement to any such adjustment is subject to the provisions of Paragraphs 4.05.D, 4.05.E, 11.07, and 11.08.
- H. If, after receipt of such written notice, Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special

conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work, following the contractual change procedures in Article 11. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 8.

- I. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court, arbitration, or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition (1) was not shown or indicated in the Drawings, Specifications, or other Contract Documents, identified as Technical Data entitled to limited reliance pursuant to Paragraph 5.06.B, or identified in the Contract Documents to be included within the scope of the Work, and (2) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.I obligates Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- J. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the failure to control, contain, or remove a Constituent of Concern brought to the Site by Contractor or by anyone for whom Contractor is responsible, or to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.J obligates Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- K. The provisions of Paragraphs 5.03, 5.04, and 5.05 do not apply to the presence of Constituents of Concern or to a Hazardous Environmental Condition uncovered or revealed at the Site.

## **ARTICLE 6—BONDS AND INSURANCE**

### **6.01 *Performance, Payment, and Other Bonds***

- A. Contractor shall furnish a performance bond and a payment bond, each in an amount at least equal to the Contract Price, as security for the faithful performance and payment of Contractor's obligations under the Contract. These bonds must remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 15.08, whichever is later, except as provided otherwise by Laws or Regulations, the terms of a prescribed bond form, the Supplementary Conditions, or other provisions of the Contract.
- B. Contractor shall also furnish such other bonds (if any) as are required by the Supplementary Conditions or other provisions of the Contract.
- C. All bonds must be in the form included in the Bidding Documents or otherwise specified by Owner prior to execution of the Contract, except as provided otherwise by Laws or

Regulations, and must be issued and signed by a surety named in “Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies” as published in Department Circular 570 (as amended and supplemented) by the Bureau of the Fiscal Service, U.S. Department of the Treasury. A bond signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual’s authority to bind the surety. The evidence of authority must show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.

- D. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized, in the state or jurisdiction in which the Project is located, to issue bonds in the required amounts.
- E. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or the surety ceases to meet the requirements above, then Contractor shall promptly notify Owner and Engineer in writing and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which must comply with the bond and surety requirements above.
- F. If Contractor has failed to obtain a required bond, Owner may exclude the Contractor from the Site and exercise Owner’s termination rights under Article 16.
- G. Upon request to Owner from any Subcontractor, Supplier, or other person or entity claiming to have furnished labor, services, materials, or equipment used in the performance of the Work, Owner shall provide a copy of the payment bond to such person or entity.
- H. Upon request to Contractor from any Subcontractor, Supplier, or other person or entity claiming to have furnished labor, services, materials, or equipment used in the performance of the Work, Contractor shall provide a copy of the payment bond to such person or entity.

6.02 *Insurance—General Provisions*

- A. Owner and Contractor shall obtain and maintain insurance as required in this article and in the Supplementary Conditions.
- B. All insurance required by the Contract to be purchased and maintained by Owner or Contractor shall be obtained from insurance companies that are duly licensed or authorized in the state or jurisdiction in which the Project is located to issue insurance policies for the required limits and coverages. Unless a different standard is indicated in the Supplementary Conditions, all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better.
- C. Alternative forms of insurance coverage, including but not limited to self-insurance and “Occupational Accident and Excess Employer’s Indemnity Policies,” are not sufficient to meet the insurance requirements of this Contract, unless expressly allowed in the Supplementary Conditions.
- D. Contractor shall deliver to Owner, with copies to each additional insured identified in the Contract, certificates of insurance and endorsements establishing that Contractor has obtained and is maintaining the policies and coverages required by the Contract. Upon request by Owner or any other insured, Contractor shall also furnish other evidence of such required insurance, including but not limited to copies of policies, documentation of applicable self-insured retentions (if allowed) and deductibles, full disclosure of all relevant exclusions, and evidence of insurance required to be purchased and maintained by

Subcontractors or Suppliers. In any documentation furnished under this provision, Contractor, Subcontractors, and Suppliers may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those applicable to this Contract.

- E. Owner shall deliver to Contractor, with copies to each additional insured identified in the Contract, certificates of insurance and endorsements establishing that Owner has obtained and is maintaining the policies and coverages required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies, documentation of applicable self-insured retentions (if allowed) and deductibles, and full disclosure of all relevant exclusions. In any documentation furnished under this provision, Owner may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those relevant to this Contract.
- F. Failure of Owner or Contractor to demand such certificates or other evidence of the other party's full compliance with these insurance requirements, or failure of Owner or Contractor to identify a deficiency in compliance from the evidence provided, will not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.
- G. In addition to the liability insurance required to be provided by Contractor, the Owner, at Owner's option, may purchase and maintain Owner's own liability insurance. Owner's liability policies, if any, operate separately and independently from policies required to be provided by Contractor, and Contractor cannot rely upon Owner's liability policies for any of Contractor's obligations to the Owner, Engineer, or third parties.
- H. Contractor shall require:
  - 1. Subcontractors to purchase and maintain worker's compensation, commercial general liability, and other insurance that is appropriate for their participation in the Project, and to name as additional insureds Owner and Engineer (and any other individuals or entities identified in the Supplementary Conditions as additional insureds on Contractor's liability policies) on each Subcontractor's commercial general liability insurance policy; and
  - 2. Suppliers to purchase and maintain insurance that is appropriate for their participation in the Project.
- I. If either party does not purchase or maintain the insurance required of such party by the Contract, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage.
- J. If Contractor has failed to obtain and maintain required insurance, Contractor's entitlement to enter or remain at the Site will end immediately, and Owner may impose an appropriate set-off against payment for any associated costs (including but not limited to the cost of purchasing necessary insurance coverage), and exercise Owner's termination rights under Article 16.
- K. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect (but is in no way obligated) to obtain equivalent insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and the Contract Price will be adjusted accordingly.

- L. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests. Contractor is responsible for determining whether such coverage and limits are adequate to protect its interests, and for obtaining and maintaining any additional insurance that Contractor deems necessary.
- M. The insurance and insurance limits required herein will not be deemed as a limitation on Contractor's liability, or that of its Subcontractors or Suppliers, under the indemnities granted to Owner and other individuals and entities in the Contract or otherwise.
- N. All the policies of insurance required to be purchased and maintained under this Contract will contain a provision or endorsement that the coverage afforded will not be canceled, or renewal refused, until at least 10 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured and Engineer.

6.03 *Contractor's Insurance*

- A. *Required Insurance:* Contractor shall purchase and maintain Worker's Compensation, Commercial General Liability, and other insurance pursuant to the specific requirements of the Supplementary Conditions.
- B. *General Provisions:* The policies of insurance required by this Paragraph 6.03 as supplemented must:
  1. include at least the specific coverages required;
  2. be written for not less than the limits provided, or those required by Laws or Regulations, whichever is greater;
  3. remain in effect at least until the Work is complete (as set forth in Paragraph 15.06.D), and longer if expressly required elsewhere in this Contract, and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract;
  4. apply with respect to the performance of the Work, whether such performance is by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable; and
  5. include all necessary endorsements to support the stated requirements.
- C. *Additional Insureds:* The Contractor's commercial general liability, automobile liability, employer's liability, umbrella or excess, pollution liability, and unmanned aerial vehicle liability policies, if required by this Contract, must:
  1. include and list as additional insureds Owner and Engineer, and any individuals or entities identified as additional insureds in the Supplementary Conditions;
  2. include coverage for the respective officers, directors, members, partners, employees, and consultants of all such additional insureds;
  3. afford primary coverage to these additional insureds for all claims covered thereby (including as applicable those arising from both ongoing and completed operations);

4. not seek contribution from insurance maintained by the additional insured; and
5. as to commercial general liability insurance, apply to additional insureds with respect to liability caused in whole or in part by Contractor's acts or omissions, or the acts and omissions of those working on Contractor's behalf, in the performance of Contractor's operations.

#### 6.04 *Builder's Risk and Other Property Insurance*

- A. *Builder's Risk*: Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the Work's full insurable replacement cost (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). The specific requirements applicable to the builder's risk insurance are set forth in the Supplementary Conditions.
- B. *Property Insurance for Facilities of Owner Where Work Will Occur*: Owner is responsible for obtaining and maintaining property insurance covering each existing structure, building, or facility in which any part of the Work will occur, or to which any part of the Work will attach or be adjoined. Such property insurance will be written on a special perils (all-risk) form, on a replacement cost basis, providing coverage consistent with that required for the builder's risk insurance, and will be maintained until the Work is complete, as set forth in Paragraph 15.06.D.
- C. *Property Insurance for Substantially Complete Facilities*: Promptly after Substantial Completion, and before actual occupancy or use of the substantially completed Work, Owner will obtain property insurance for such substantially completed Work, and maintain such property insurance at least until the Work is complete, as set forth in Paragraph 15.06.D. Such property insurance will be written on a special perils (all-risk) form, on a replacement cost basis, and provide coverage consistent with that required for the builder's risk insurance. The builder's risk insurance may terminate upon written confirmation of Owner's procurement of such property insurance.
- D. *Partial Occupancy or Use by Owner*: If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work, as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will provide advance notice of such occupancy or use to the builder's risk insurer, and obtain an endorsement consenting to the continuation of coverage prior to commencing such partial occupancy or use.
- E. *Insurance of Other Property; Additional Insurance*: If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, then the entity or individual owning such property item will be responsible for insuring it. If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.04, it may do so at Contractor's expense.

#### 6.05 *Property Losses; Subrogation*

- A. The builder's risk insurance policy purchased and maintained in accordance with Paragraph 6.04 (or an installation floater policy if authorized by the Supplementary Conditions), will contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any insureds thereunder, or against

Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors.

1. Owner and Contractor waive all rights against each other and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from any of the perils, risks, or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Engineer, its consultants, all individuals or entities identified in the Supplementary Conditions as builder's risk or installation floater insureds, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, under such policies for losses and damages so caused.
  2. None of the above waivers extends to the rights that any party making such waiver may have to the proceeds of insurance held by Owner or Contractor as trustee or fiduciary, or otherwise payable under any policy so issued.
- B. Any property insurance policy maintained by Owner covering any loss, damage, or consequential loss to Owner's existing structures, buildings, or facilities in which any part of the Work will occur, or to which any part of the Work will attach or adjoin; to adjacent structures, buildings, or facilities of Owner; or to part or all of the completed or substantially completed Work, during partial occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06, will contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any insureds thereunder, or against Contractor, Subcontractors, or Engineer, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them, and that the insured is allowed to waive the insurer's rights of subrogation in a written contract executed prior to the loss, damage, or consequential loss.
1. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from fire or any of the perils, risks, or causes of loss covered by such policies.
- C. The waivers in this Paragraph 6.05 include the waiver of rights due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other insured peril, risk, or cause of loss.
- D. Contractor shall be responsible for assuring that each Subcontract contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the Supplementary Conditions as insureds, the Engineer and its consultants, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, relating to, or resulting from fire or other peril, risk, or cause of loss covered by builder's risk insurance, installation floater, and any other property insurance applicable to the Work.

6.06 *Receipt and Application of Property Insurance Proceeds*

- A. Any insured loss under the builder's risk and other policies of property insurance required by Paragraph 6.04 will be adjusted and settled with the named insured that purchased the policy. Such named insured shall act as fiduciary for the other insureds, and give notice to such other insureds that adjustment and settlement of a claim is in progress. Any other insured may state its position regarding a claim for insured loss in writing within 15 days after notice of such claim.
- B. Proceeds for such insured losses may be made payable by the insurer either jointly to multiple insureds, or to the named insured that purchased the policy in its own right and as fiduciary for other insureds, subject to the requirements of any applicable mortgage clause. A named insured receiving insurance proceeds under the builder's risk and other policies of insurance required by Paragraph 6.04 shall maintain such proceeds in a segregated account, and distribute such proceeds in accordance with such agreement as the parties in interest may reach, or as otherwise required under the dispute resolution provisions of this Contract or applicable Laws and Regulations.
- C. If no other special agreement is reached, Contractor shall repair or replace the damaged Work, using allocated insurance proceeds.

**ARTICLE 7—CONTRACTOR'S RESPONSIBILITIES**

7.01 *Contractor's Means and Methods of Construction*

- A. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction.
- B. If the Contract Documents note, or Contractor determines, that professional engineering or other design services are needed to carry out Contractor's responsibilities for construction means, methods, techniques, sequences, and procedures, or for Site safety, then Contractor shall cause such services to be provided by a properly licensed design professional, at Contractor's expense. Such services are not Owner-delegated professional design services under this Contract, and neither Owner nor Engineer has any responsibility with respect to (1) Contractor's determination of the need for such services, (2) the qualifications or licensing of the design professionals retained or employed by Contractor, (3) the performance of such services, or (4) any errors, omissions, or defects in such services.

7.02 *Supervision and Superintendence*

- A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents.
- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who will not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

7.03 *Labor; Working Hours*

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall maintain good discipline and order at the Site.

- B. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of Contractor's employees; of Suppliers and Subcontractors, and their employees; and of any other individuals or entities performing or furnishing any of the Work, just as Contractor is responsible for Contractor's own acts and omissions.
- C. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site will be performed during regular working hours, Monday through Friday. Contractor will not perform Work on a Saturday, Sunday, or any legal holiday. Contractor may perform Work outside regular working hours or on Saturdays, Sundays, or legal holidays only with Owner's written consent, which will not be unreasonably withheld.

7.04 *Services, Materials, and Equipment*

- A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start up, and completion of the Work, whether or not such items are specifically called for in the Contract Documents.
- B. All materials and equipment incorporated into the Work must be new and of good quality, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications will expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.
- C. All materials and equipment must be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

7.05 *"Or Equals"*

- A. *Contractor's Request; Governing Criteria:* Whenever an item of equipment or material is specified or described in the Contract Documents by using the names of one or more proprietary items or specific Suppliers, the Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or equal" item is permitted, Contractor may request that Engineer authorize the use of other items of equipment or material, or items from other proposed Suppliers, under the circumstances described below.
  - 1. If Engineer in its sole discretion determines that an item of equipment or material proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, Engineer will deem it an "or equal" item. For the purposes of this paragraph, a proposed item of equipment or material will be considered functionally equal to an item so named if:
    - a. in the exercise of reasonable judgment Engineer determines that the proposed item:
      - 1) is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;

- 2) will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;
  - 3) has a proven record of performance and availability of responsive service; and
  - 4) is not objectionable to Owner.
- b. Contractor certifies that, if the proposed item is approved and incorporated into the Work:
- 1) there will be no increase in cost to the Owner or increase in Contract Times; and
  - 2) the item will conform substantially to the detailed requirements of the item named in the Contract Documents.
- B. *Contractor's Expense:* Contractor shall provide all data in support of any proposed "or equal" item at Contractor's expense.
- C. *Engineer's Evaluation and Determination:* Engineer will be allowed a reasonable time to evaluate each "or-equal" request. Engineer may require Contractor to furnish additional data about the proposed "or-equal" item. Engineer will be the sole judge of acceptability. No "or-equal" item will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an "or-equal," which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination.
- D. *Effect of Engineer's Determination:* Neither approval nor denial of an "or-equal" request will result in any change in Contract Price. The Engineer's denial of an "or-equal" request will be final and binding, and may not be reversed through an appeal under any provision of the Contract.
- E. *Treatment as a Substitution Request:* If Engineer determines that an item of equipment or material proposed by Contractor does not qualify as an "or-equal" item, Contractor may request that Engineer consider the item a proposed substitute pursuant to Paragraph 7.06.

#### 7.06 Substitutes

- A. *Contractor's Request; Governing Criteria:* Unless the specification or description of an item of equipment or material required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of equipment or material under the circumstances described below. To the extent possible such requests must be made before commencement of related construction at the Site.
1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of equipment or material from anyone other than Contractor.
  2. The requirements for review by Engineer will be as set forth in Paragraph 7.06.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.

3. Contractor shall make written application to Engineer for review of a proposed substitute item of equipment or material that Contractor seeks to furnish or use. The application:
  - a. will certify that the proposed substitute item will:
    - 1) perform adequately the functions and achieve the results called for by the general design;
    - 2) be similar in substance to the item specified; and
    - 3) be suited to the same use as the item specified.
  - b. will state:
    - 1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times;
    - 2) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item; and
    - 3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.
  - c. will identify:
    - 1) all variations of the proposed substitute item from the item specified; and
    - 2) available engineering, sales, maintenance, repair, and replacement services.
  - d. will contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in Contract Price, shared savings, costs of redesign, and claims of other contractors affected by any resulting change.
- B. *Engineer's Evaluation and Determination*: Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an acceptable substitute. Engineer's determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination.
- C. *Special Guarantee*: Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- D. *Reimbursement of Engineer's Cost*: Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.

- E. *Contractor's Expense*: Contractor shall provide all data in support of any proposed substitute at Contractor's expense.
- F. *Effect of Engineer's Determination*: If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request will be final and binding, and may not be reversed through an appeal under any provision of the Contract. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.06.D, by timely submittal of a Change Proposal.

7.07 *Concerning Subcontractors and Suppliers*

- A. Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner. The Contractor's retention of a Subcontractor or Supplier for the performance of parts of the Work will not relieve Contractor's obligation to Owner to perform and complete the Work in accordance with the Contract Documents.
- B. Contractor shall retain specific Subcontractors and Suppliers for the performance of designated parts of the Work if required by the Contract to do so.
- C. Subsequent to the submittal of Contractor's Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor or Supplier to furnish or perform any of the Work against which Contractor has reasonable objection.
- D. Prior to entry into any binding subcontract or purchase order, Contractor shall submit to Owner the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable during the bidding process or otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within 5 days.
- E. Owner may require the replacement of any Subcontractor or Supplier. Owner also may require Contractor to retain specific replacements; provided, however, that Owner may not require a replacement to which Contractor has a reasonable objection. If Contractor has submitted the identity of certain Subcontractors or Suppliers for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto), then Owner may subsequently revoke the acceptance of any such Subcontractor or Supplier so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor or Supplier.
- F. If Owner requires the replacement of any Subcontractor or Supplier retained by Contractor to perform any part of the Work, then Contractor shall be entitled to an adjustment in Contract Price or Contract Times, with respect to the replacement; and Contractor shall initiate a Change Proposal for such adjustment within 30 days of Owner's requirement of replacement.
- G. No acceptance by Owner of any such Subcontractor or Supplier, whether initially or as a replacement, will constitute a waiver of the right of Owner to the completion of the Work in accordance with the Contract Documents.

- H. On a monthly basis, Contractor shall submit to Engineer a complete list of all Subcontractors and Suppliers having a direct contract with Contractor, and of all other Subcontractors and Suppliers known to Contractor at the time of submittal.
- I. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors and Suppliers.
- J. The divisions and sections of the Specifications and the identifications of any Drawings do not control Contractor in dividing the Work among Subcontractors or Suppliers, or in delineating the Work to be performed by any specific trade.
- K. All Work performed for Contractor by a Subcontractor or Supplier must be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract for the benefit of Owner and Engineer.
- L. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor for Work performed for Contractor by the Subcontractor or Supplier.
- M. Contractor shall restrict all Subcontractors and Suppliers from communicating with Engineer or Owner, except through Contractor or in case of an emergency, or as otherwise expressly allowed in this Contract.

7.08 *Patent Fees and Royalties*

- A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If an invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights will be disclosed in the Contract Documents.
- B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.
- C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

#### 7.09 *Permits*

- A. Unless otherwise provided in the Contract Documents, Contractor shall obtain and pay for all construction permits, licenses, and certificates of occupancy. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of the submission of Contractor's Bid (or when Contractor became bound under a negotiated contract). Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

#### 7.10 *Taxes*

- A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

#### 7.11 *Laws and Regulations*

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all resulting costs and losses, and shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work or other action. It is not Contractor's responsibility to make certain that the Work described in the Contract Documents is in accordance with Laws and Regulations, but this does not relieve Contractor of its obligations under Paragraph 3.03.
- C. Owner or Contractor may give written notice to the other party of any changes after the submission of Contractor's Bid (or after the date when Contractor became bound under a negotiated contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on sales, use, value-added, consumption, and other similar taxes. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such written notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.

#### 7.12 *Record Documents*

- A. Contractor shall maintain in a safe place at the Site one printed record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, written interpretations and clarifications, and approved Shop Drawings. Contractor shall keep such record documents in good order and annotate them to show changes made during construction. These record documents, together with all approved Samples, will be available to Engineer for reference. Upon completion of the Work, Contractor shall deliver these record documents to Engineer.

### 7.13 *Safety and Protection*

- A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations.
- B. Contractor shall designate a qualified and experienced safety representative whose duties and responsibilities are the prevention of Work-related accidents and the maintenance and supervision of safety precautions and programs.
- C. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:
  - 1. all persons on the Site or who may be affected by the Work;
  - 2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
  - 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- D. All damage, injury, or loss to any property referred to in Paragraph 7.13.C.2 or 7.13.C.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor at its expense (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).
- E. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection.
- F. Contractor shall notify Owner; the owners of adjacent property; the owners of Underground Facilities and other utilities (if the identity of such owners is known to Contractor); and other contractors and utility owners performing work at or adjacent to the Site, in writing, when Contractor knows that prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.
- G. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. Any Owner's safety programs that are applicable to the Work are identified or included in the Supplementary Conditions or Specifications.
- H. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.

- I. Contractor's duties and responsibilities for safety and protection will continue until all the Work is completed, Engineer has issued a written notice to Owner and Contractor in accordance with Paragraph 15.06.C that the Work is acceptable, and Contractor has left the Site (except as otherwise expressly provided in connection with Substantial Completion).
- J. Contractor's duties and responsibilities for safety and protection will resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

7.14 *Hazard Communication Programs*

- A. Contractor shall be responsible for coordinating any exchange of safety data sheets (formerly known as material safety data sheets) or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

7.15 *Emergencies*

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused by an emergency, or are required as a result of Contractor's response to an emergency. If Engineer determines that a change in the Contract Documents is required because of an emergency or Contractor's response, a Work Change Directive or Change Order will be issued.

7.16 *Submittals*

A. *Shop Drawing and Sample Requirements*

- 1. Before submitting a Shop Drawing or Sample, Contractor shall:
  - a. review and coordinate the Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
  - b. determine and verify:
    - 1) all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect to the Submittal;
    - 2) the suitability of all materials and equipment offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
    - 3) all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto;
  - c. confirm that the Submittal is complete with respect to all related data included in the Submittal.
- 2. Each Shop Drawing or Sample must bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review of that Submittal, and that Contractor approves the Submittal.

3. With each Shop Drawing or Sample, Contractor shall give Engineer specific written notice of any variations that the Submittal may have from the requirements of the Contract Documents. This notice must be set forth in a written communication separate from the Submittal; and, in addition, in the case of a Shop Drawing by a specific notation made on the Shop Drawing itself.
- B. *Submittal Procedures for Shop Drawings and Samples:* Contractor shall label and submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals.
1. *Shop Drawings*
    - a. Contractor shall submit the number of copies required in the Specifications.
    - b. Data shown on the Shop Drawings must be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide, and to enable Engineer to review the information for the limited purposes required by Paragraph 7.16.C.
  2. *Samples*
    - a. Contractor shall submit the number of Samples required in the Specifications.
    - b. Contractor shall clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the Submittal for the limited purposes required by Paragraph 7.16.C.
  3. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.
- C. *Engineer's Review of Shop Drawings and Samples*
1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the accepted Schedule of Submittals. Engineer's review and approval will be only to determine if the items covered by the Submittals will, after installation or incorporation in the Work, comply with the requirements of the Contract Documents, and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
  2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction, or to safety precautions or programs incident thereto.
  3. Engineer's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
  4. Engineer's review and approval of a Shop Drawing or Sample will not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 7.16.A.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer will

document any such approved variation from the requirements of the Contract Documents in a Field Order or other appropriate Contract modification.

5. Engineer's review and approval of a Shop Drawing or Sample will not relieve Contractor from responsibility for complying with the requirements of Paragraphs 7.16.A and B.
6. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, will not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.
7. Neither Engineer's receipt, review, acceptance, or approval of a Shop Drawing or Sample will result in such item becoming a Contract Document.
8. Contractor shall perform the Work in compliance with the requirements and commitments set forth in approved Shop Drawings and Samples, subject to the provisions of Paragraph 7.16.C.4.

*D. Resubmittal Procedures for Shop Drawings and Samples*

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous Submittals.
2. Contractor shall furnish required Shop Drawing and Sample submittals with sufficient information and accuracy to obtain required approval of an item with no more than two resubmittals. Engineer will record Engineer's time for reviewing a third or subsequent resubmittal of a Shop Drawing or Sample, and Contractor shall be responsible for Engineer's charges to Owner for such time. Owner may impose a set-off against payments due Contractor to secure reimbursement for such charges.
3. If Contractor requests a change of a previously approved Shop Drawing or Sample, Contractor shall be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.

*E. Submittals Other than Shop Drawings, Samples, and Owner-Delegated Designs*

1. The following provisions apply to all Submittals other than Shop Drawings, Samples, and Owner-delegated designs:
  - a. Contractor shall submit all such Submittals to the Engineer in accordance with the Schedule of Submittals and pursuant to the applicable terms of the Contract Documents.
  - b. Engineer will provide timely review of all such Submittals in accordance with the Schedule of Submittals and return such Submittals with a notation of either Accepted or Not Accepted. Any such Submittal that is not returned within the time established in the Schedule of Submittals will be deemed accepted.
  - c. Engineer's review will be only to determine if the Submittal is acceptable under the requirements of the Contract Documents as to general form and content of the Submittal.

- d. If any such Submittal is not accepted, Contractor shall confer with Engineer regarding the reason for the non-acceptance, and resubmit an acceptable document.
  2. Procedures for the submittal and acceptance of the Progress Schedule, the Schedule of Submittals, and the Schedule of Values are set forth in Paragraphs 2.03, 2.04, and 2.05.
- F. Owner-delegated Designs: Submittals pursuant to Owner-delegated designs are governed by the provisions of Paragraph 7.19.

7.17 *Contractor's General Warranty and Guarantee*

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer is entitled to rely on Contractor's warranty and guarantee.
- B. Owner's rights under this warranty and guarantee are in addition to, and are not limited by, Owner's rights under the correction period provisions of Paragraph 15.08. The time in which Owner may enforce its warranty and guarantee rights under this Paragraph 7.17 is limited only by applicable Laws and Regulations restricting actions to enforce such rights; provided, however, that after the end of the correction period under Paragraph 15.08:
1. Owner shall give Contractor written notice of any defective Work within 60 days of the discovery that such Work is defective; and
  2. Such notice will be deemed the start of an event giving rise to a Claim under Paragraph 12.01.B, such that any related Claim must be brought within 30 days of the notice.
- C. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
1. abuse, or improper modification, maintenance, or operation, by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
  2. normal wear and tear under normal usage.
- D. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents is absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents, a release of Contractor's obligation to perform the Work in accordance with the Contract Documents, or a release of Owner's warranty and guarantee rights under this Paragraph 7.17:
1. Observations by Engineer;
  2. Recommendation by Engineer or payment by Owner of any progress or final payment;
  3. The issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
  4. Use or occupancy of the Work or any part thereof by Owner;
  5. Any review and approval of a Shop Drawing or Sample submittal;
  6. The issuance of a notice of acceptability by Engineer;
  7. The end of the correction period established in Paragraph 15.08;
  8. Any inspection, test, or approval by others; or

9. Any correction of defective Work by Owner.
- E. If the Contract requires the Contractor to accept the assignment of a contract entered into by Owner, then the specific warranties, guarantees, and correction obligations contained in the assigned contract will govern with respect to Contractor's performance obligations to Owner for the Work described in the assigned contract.

7.18 *Indemnification*

- A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from losses, damages, costs, and judgments (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising from third-party claims or actions relating to or resulting from the performance or furnishing of the Work, provided that any such claim, action, loss, cost, judgment or damage is attributable to bodily injury, sickness, disease, or death, or to damage to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable.
- B. In any and all claims against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 7.18.A will not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

7.19 *Delegation of Professional Design Services*

- A. Owner may require Contractor to provide professional design services for a portion of the Work by express delegation in the Contract Documents. Such delegation will specify the performance and design criteria that such services must satisfy, and the Submittals that Contractor must furnish to Engineer with respect to the Owner-delegated design.
- B. Contractor shall cause such Owner-delegated professional design services to be provided pursuant to the professional standard of care by a properly licensed design professional, whose signature and seal must appear on all drawings, calculations, specifications, certifications, and Submittals prepared by such design professional. Such design professional must issue all certifications of design required by Laws and Regulations.
- C. If a Shop Drawing or other Submittal related to the Owner-delegated design is prepared by Contractor, a Subcontractor, or others for submittal to Engineer, then such Shop Drawing or other Submittal must bear the written approval of Contractor's design professional when submitted by Contractor to Engineer.

- D. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, and approvals performed or provided by the design professionals retained or employed by Contractor under an Owner-delegated design, subject to the professional standard of care and the performance and design criteria stated in the Contract Documents.
- E. Pursuant to this Paragraph 7.19, Engineer's review, approval, and other determinations regarding design drawings, calculations, specifications, certifications, and other Submittals furnished by Contractor pursuant to an Owner-delegated design will be only for the following limited purposes:
  - 1. Checking for conformance with the requirements of this Paragraph 7.19;
  - 2. Confirming that Contractor (through its design professionals) has used the performance and design criteria specified in the Contract Documents; and
  - 3. Establishing that the design furnished by Contractor is consistent with the design concept expressed in the Contract Documents.
- F. Contractor shall not be responsible for the adequacy of performance or design criteria specified by Owner or Engineer.
- G. Contractor is not required to provide professional services in violation of applicable Laws and Regulations.

## **ARTICLE 8—OTHER WORK AT THE SITE**

### **8.01 *Other Work***

- A. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.
- B. If Owner performs other work at or adjacent to the Site with Owner's employees, or through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any third-party utility work that Owner has arranged to take place at or adjacent to the Site, Owner shall provide such information to Contractor.
- C. Contractor shall afford proper and safe access to the Site to each contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner's employees, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work.
- D. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected.

- E. If the proper execution or results of any part of Contractor's Work depends upon work performed by others, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.
- F. The provisions of this article are not applicable to work that is performed by third-party utilities or other third-party entities without a contract with Owner, or that is performed without having been arranged by Owner. If such work occurs, then any related delay, disruption, or interference incurred by Contractor is governed by the provisions of Paragraph 4.05.C.3.

#### 8.02 *Coordination*

- A. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, to perform other work at or adjacent to the Site with Owner's employees, or to arrange to have utility owners perform work at or adjacent to the Site, the following will be set forth in the Supplementary Conditions or provided to Contractor prior to the start of any such other work:
  - 1. The identity of the individual or entity that will have authority and responsibility for coordination of the activities among the various contractors;
  - 2. An itemization of the specific matters to be covered by such authority and responsibility; and
  - 3. The extent of such authority and responsibilities.
- B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

#### 8.03 *Legal Relationships*

- A. If, in the course of performing other work for Owner at or adjacent to the Site, the Owner's employees, any other contractor working for Owner, or any utility owner that Owner has arranged to perform work, causes damage to the Work or to the property of Contractor or its Subcontractors, or delays, disrupts, interferes with, or increases the scope or cost of the performance of the Work, through actions or inaction, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times. Contractor must submit any Change Proposal seeking an equitable adjustment in the Contract Price or the Contract Times under this paragraph within 30 days of the damaging, delaying, disrupting, or interfering event. The entitlement to, and extent of, any such equitable adjustment will take into account information (if any) regarding such other work that was provided to Contractor in the Contract Documents prior to the submittal of the Bid or the final negotiation of the terms of the Contract, and any remedies available to Contractor under Laws or Regulations concerning utility action or inaction. When applicable, any such equitable adjustment in Contract Price will be conditioned on Contractor assigning to Owner all Contractor's rights against such other contractor or utility owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. Contractor's entitlement to an adjustment of the Contract Times or Contract Price is subject to the provisions of Paragraphs 4.05.D and 4.05.E.

- B. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site.
  - 1. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due Contractor, and assign to such other contractor or utility owner the Owner's contractual rights against Contractor with respect to the breach of the obligations set forth in this Paragraph 8.03.B.
  - 2. When Owner is performing other work at or adjacent to the Site with Owner's employees, Contractor shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Contractor's failure to take reasonable and customary measures with respect to Owner's other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due Contractor.
- C. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor, Owner, or Engineer, then Contractor shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claims, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such damage, delay, disruption, or interference.

## **ARTICLE 9—OWNER'S RESPONSIBILITIES**

### **9.01 *Communications to Contractor***

- A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

### **9.02 *Replacement of Engineer***

- A. Owner may at its discretion appoint an engineer to replace Engineer, provided Contractor makes no reasonable objection to the replacement engineer. The replacement engineer's status under the Contract Documents will be that of the former Engineer.

### **9.03 *Furnish Data***

- A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

### **9.04 *Pay When Due***

- A. Owner shall make payments to Contractor when they are due as provided in the Agreement.

- 9.05 *Lands and Easements; Reports, Tests, and Drawings*
- A. Owner's duties with respect to providing lands and easements are set forth in Paragraph 5.01.
  - B. Owner's duties with respect to providing engineering surveys to establish reference points are set forth in Paragraph 4.03.
  - C. Article 5 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of conditions at the Site, and drawings of physical conditions relating to existing surface or subsurface structures at the Site.
- 9.06 *Insurance*
- A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 6.
- 9.07 *Change Orders*
- A. Owner's responsibilities with respect to Change Orders are set forth in Article 11.
- 9.08 *Inspections, Tests, and Approvals*
- A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 14.02.B.
- 9.09 *Limitations on Owner's Responsibilities*
- A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- 9.10 *Undisclosed Hazardous Environmental Condition*
- A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 5.06.
- 9.11 *Evidence of Financial Arrangements*
- A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract (including obligations under proposed changes in the Work).
- 9.12 *Safety Programs*
- A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed.
  - B. Owner shall furnish copies of any applicable Owner safety programs to Contractor.

## ARTICLE 10—ENGINEER'S STATUS DURING CONSTRUCTION

### 10.01 *Owner's Representative*

- A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract.

### 10.02 *Visits to Site*

- A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe, as an experienced and qualified design professional, the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.
- B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 10.07. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

### 10.03 *Resident Project Representative*

- A. If Owner and Engineer have agreed that Engineer will furnish a Resident Project Representative to represent Engineer at the Site and assist Engineer in observing the progress and quality of the Work, then the authority and responsibilities of any such Resident Project Representative will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in the Supplementary Conditions and in Paragraph 10.07.
- B. If Owner designates an individual or entity who is not Engineer's consultant, agent, or employee to represent Owner at the Site, then the responsibilities and authority of such individual or entity will be as provided in the Supplementary Conditions.

### 10.04 *Engineer's Authority*

- A. Engineer has the authority to reject Work in accordance with Article 14.
- B. Engineer's authority as to Submittals is set forth in Paragraph 7.16.
- C. Engineer's authority as to design drawings, calculations, specifications, certifications and other Submittals from Contractor in response to Owner's delegation (if any) to Contractor of professional design services, is set forth in Paragraph 7.19.
- D. Engineer's authority as to changes in the Work is set forth in Article 11.

E. Engineer's authority as to Applications for Payment is set forth in Article 15.

10.05 *Determinations for Unit Price Work*

A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor as set forth in Paragraph 13.03.

10.06 *Decisions on Requirements of Contract Documents and Acceptability of Work*

A. Engineer will render decisions regarding the requirements of the Contract Documents, and judge the acceptability of the Work, pursuant to the specific procedures set forth herein for initial interpretations, Change Proposals, and acceptance of the Work. In rendering such decisions and judgments, Engineer will not show partiality to Owner or Contractor, and will not be liable to Owner, Contractor, or others in connection with any proceedings, interpretations, decisions, or judgments conducted or rendered in good faith.

10.07 *Limitations on Engineer's Authority and Responsibilities*

A. Neither Engineer's authority or responsibility under this Article 10 or under any other provision of the Contract, nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer, will create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.

D. Engineer's review of the final Application for Payment and accompanying documentation, and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Contractor under Paragraph 15.06.A, will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals, that the results certified indicate compliance with the Contract Documents.

E. The limitations upon authority and responsibility set forth in this Paragraph 10.07 also apply to the Resident Project Representative, if any.

10.08 *Compliance with Safety Program*

A. While at the Site, Engineer's employees and representatives will comply with the specific applicable requirements of Owner's and Contractor's safety programs of which Engineer has been informed.

## ARTICLE 11—CHANGES TO THE CONTRACT

### 11.01 *Amending and Supplementing the Contract*

- A. The Contract may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.
- B. If an amendment or supplement to the Contract includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order.
- C. All changes to the Contract that involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, must be supported by Engineer's recommendation. Owner and Contractor may amend other terms and conditions of the Contract without the recommendation of the Engineer.

### 11.02 *Change Orders*

- A. Owner and Contractor shall execute appropriate Change Orders covering:
  - 1. Changes in Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive;
  - 2. Changes in Contract Price resulting from an Owner set-off, unless Contractor has duly contested such set-off;
  - 3. Changes in the Work which are: (a) ordered by Owner pursuant to Paragraph 11.05, (b) required because of Owner's acceptance of defective Work under Paragraph 14.04 or Owner's correction of defective Work under Paragraph 14.07, or (c) agreed to by the parties, subject to the need for Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise) or other engineering or technical matters; and
  - 4. Changes that embody the substance of any final and binding results under: Paragraph 11.03.B, resolving the impact of a Work Change Directive; Paragraph 11.09, concerning Change Proposals; Article 12, Claims; Paragraph 13.02.D, final adjustments resulting from allowances; Paragraph 13.03.D, final adjustments relating to determination of quantities for Unit Price Work; and similar provisions.
- B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of Paragraph 11.02.A, it will be deemed to be of full force and effect, as if fully executed.

### 11.03 *Work Change Directives*

- A. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments, expressly including Paragraph 11.07 regarding change of Contract Price.

- B. If Owner has issued a Work Change Directive and:
  - 1. Contractor believes that an adjustment in Contract Times or Contract Price is necessary, then Contractor shall submit any Change Proposal seeking such an adjustment no later than 30 days after the completion of the Work set out in the Work Change Directive.
  - 2. Owner believes that an adjustment in Contract Times or Contract Price is necessary, then Owner shall submit any Claim seeking such an adjustment no later than 60 days after issuance of the Work Change Directive.

#### 11.04 *Field Orders*

- A. Engineer may authorize minor changes in the Work if the changes do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Such changes will be accomplished by a Field Order and will be binding on Owner and also on Contractor, which shall perform the Work involved promptly.
- B. If Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, then before proceeding with the Work at issue, Contractor shall submit a Change Proposal as provided herein.

#### 11.05 *Owner-Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work. Changes involving the design (as set forth in the Drawings, Specifications, or otherwise) or other engineering or technical matters will be supported by Engineer's recommendation.
- B. Such changes in the Work may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work must be performed under the applicable conditions of the Contract Documents.
- C. Nothing in this Paragraph 11.05 obligates Contractor to undertake work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor's safety obligations under the Contract Documents or Laws and Regulations.

#### 11.06 *Unauthorized Changes in the Work*

- A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents, as amended, modified, or supplemented, except in the case of an emergency as provided in Paragraph 7.15 or in the case of uncovering Work as provided in Paragraph 14.05.C.2.

#### 11.07 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price must comply with the provisions of Paragraph 11.09. Any Claim for an adjustment of Contract Price must comply with the provisions of Article 12.
- B. An adjustment in the Contract Price will be determined as follows:

1. Where the Work involved is covered by unit prices contained in the Contract Documents, then by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.03);
  2. Where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.07.C.2); or
  3. Where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on the basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.07.C).
- C. *Contractor's Fee:* When applicable, the Contractor's fee for overhead and profit will be determined as follows:
1. A mutually acceptable fixed fee; or
  2. If a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
    - a. For costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2, the Contractor's fee will be 15 percent;
    - b. For costs incurred under Paragraph 13.01.B.3, the Contractor's fee will be 5 percent;
    - c. Where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 11.07.C.2.a and 11.07.C.2.b is that the Contractor's fee will be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the Subcontractor that actually performs the Work, a fee of 5 percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted Work the maximum total fee to be paid by Owner will be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the Work;
    - d. No fee will be payable on the basis of costs itemized under Paragraphs 13.01.B.4, 13.01.B.5, and 13.01.C;
    - e. The amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in Cost of the Work will be the amount of the actual net decrease in Cost of the Work and a deduction of an additional amount equal to 5 percent of such actual net decrease in Cost of the Work; and
    - f. When both additions and credits are involved in any one change or Change Proposal, the adjustment in Contractor's fee will be computed by determining the sum of the costs in each of the cost categories in Paragraph 13.01.B (specifically, payroll costs, Paragraph 13.01.B.1; incorporated materials and equipment costs, Paragraph 13.01.B.2; Subcontract costs, Paragraph 13.01.B.3; special consultants costs, Paragraph 13.01.B.4; and other costs, Paragraph 13.01.B.5) and applying to each such cost category sum the appropriate fee from Paragraphs 11.07.C.2.a through 11.07.C.2.e, inclusive.

#### 11.08 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Times must comply with the provisions of Paragraph 11.09. Any Claim for an adjustment in the Contract Times must comply with the provisions of Article 12.
- B. Delay, disruption, and interference in the Work, and any related changes in Contract Times, are addressed in and governed by Paragraph 4.05.

#### 11.09 *Change Proposals*

A. *Purpose and Content:* Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; contest an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; challenge a set-off against payment due; or seek other relief under the Contract. The Change Proposal will specify any proposed change in Contract Times or Contract Price, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents. Each Change Proposal will address only one issue, or a set of closely related issues.

#### B. *Change Proposal Procedures*

1. *Submittal:* Contractor shall submit each Change Proposal to Engineer within 30 days after the start of the event giving rise thereto, or after such initial decision.
2. *Supporting Data:* The Contractor shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any), to the Engineer and Owner within 15 days after the submittal of the Change Proposal.
  - a. Change Proposals based on or related to delay, interruption, or interference must comply with the provisions of Paragraphs 4.05.D and 4.05.E.
  - b. Change proposals related to a change of Contract Price must include full and detailed accounts of materials incorporated into the Work and labor and equipment used for the subject Work.

The supporting data must be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which Contractor believes it is entitled as a result of said event.

3. *Engineer's Initial Review:* Engineer will advise Owner regarding the Change Proposal, and consider any comments or response from Owner regarding the Change Proposal. If in its discretion Engineer concludes that additional supporting data is needed before conducting a full review and making a decision regarding the Change Proposal, then Engineer may request that Contractor submit such additional supporting data by a date specified by Engineer, prior to Engineer beginning its full review of the Change Proposal.
4. *Engineer's Full Review and Action on the Change Proposal:* Upon receipt of Contractor's supporting data (including any additional data requested by Engineer), Engineer will conduct a full review of each Change Proposal and, within 30 days after such receipt of the Contractor's supporting data, either approve the Change Proposal in whole, deny it in whole, or approve it in part and deny it in part. Such actions must be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change

Proposal within 30 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.

5. *Binding Decision*: Engineer's decision is final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under Article 12.
- C. *Resolution of Certain Change Proposals*: If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties in writing that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice will be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.
- D. *Post-Completion*: Contractor shall not submit any Change Proposals after Engineer issues a written recommendation of final payment pursuant to Paragraph 15.06.B.

#### 11.10 *Notification to Surety*

- A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

### **ARTICLE 12—CLAIMS**

#### 12.01 *Claims*

- A. *Claims Process*: The following disputes between Owner and Contractor are subject to the Claims process set forth in this article:
  1. Appeals by Owner or Contractor of Engineer's decisions regarding Change Proposals;
  2. Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents;
  3. Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters; and
  4. Subject to the waiver provisions of Paragraph 15.07, any dispute arising after Engineer has issued a written recommendation of final payment pursuant to Paragraph 15.06.B.
- B. *Submittal of Claim*: The party submitting a Claim shall deliver it directly to the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 30 days of the decision under appeal. The party submitting the Claim shall also furnish a copy to the Engineer, for its information only. The responsibility to substantiate a Claim rests with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, Contractor shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of Contractor's knowledge

and belief the amount of time or money requested accurately reflects the full amount to which Contractor is entitled.

- C. *Review and Resolution*: The party receiving a Claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim will be stated in writing and submitted to the other party, with a copy to Engineer.
- D. *Mediation*
  - 1. At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate will stay the Claim submittal and response process.
  - 2. If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process will resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim submittal and decision process will resume as of the date of the conclusion of the mediation, as determined by the mediator.
  - 3. Owner and Contractor shall each pay one-half of the mediator's fees and costs.
- E. *Partial Approval*: If the party receiving a Claim approves the Claim in part and denies it in part, such action will be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 17 for final resolution of disputes.
- F. *Denial of Claim*: If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim will be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 17 for the final resolution of disputes.
- G. *Final and Binding Results*: If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim will be incorporated in a Change Order or other written document to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

## **ARTICLE 13—COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK**

### **13.01 *Cost of the Work***

- A. *Purposes for Determination of Cost of the Work*: The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this Paragraph 13.01 are used for two distinct purposes:
  - 1. To determine Cost of the Work when Cost of the Work is a component of the Contract Price, under cost-plus-fee, time-and-materials, or other cost-based terms; or

2. When needed to determine the value of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price. When the value of any such adjustment is determined on the basis of Cost of the Work, Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.
- B. *Costs Included:* Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work will be in amounts no higher than those commonly incurred in the locality of the Project, will not include any of the costs itemized in Paragraph 13.01.C, and will include only the following items:
1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor in advance of the subject Work. Such employees include, without limitation, superintendents, foremen, safety managers, safety representatives, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work will be apportioned on the basis of their time spent on the Work. Payroll costs include, but are not limited to, salaries and wages plus the cost of fringe benefits, which include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, sick leave, and vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, will be included in the above to the extent authorized by Owner.
  2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts will accrue to Owner. All trade discounts, rebates, and refunds and returns from sale of surplus materials and equipment will accrue to Owner, and Contractor shall make provisions so that they may be obtained.
  3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, which will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee will be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 13.01.
  4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed or retained for services specifically related to the Work.
  5. Other costs consisting of the following:
    - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
    - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, which are

consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.

- 1) In establishing included costs for materials such as scaffolding, plating, or sheeting, consideration will be given to the actual or the estimated life of the material for use on other projects; or rental rates may be established on the basis of purchase or salvage value of such items, whichever is less. Contractor will not be eligible for compensation for such items in an amount that exceeds the purchase cost of such item.

c. *Construction Equipment Rental*

- 1) Rentals of all construction equipment and machinery, and the parts thereof, in accordance with rental agreements approved by Owner as to price (including any surcharge or special rates applicable to overtime use of the construction equipment or machinery), and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs will be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts must cease when the use thereof is no longer necessary for the Work.
- 2) Costs for equipment and machinery owned by Contractor or a Contractor-related entity will be paid at a rate shown for such equipment in the equipment rental rate book specified in the Supplementary Conditions. An hourly rate will be computed by dividing the monthly rates by 176. These computed rates will include all operating costs.
- 3) With respect to Work that is the result of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price ("changed Work"), included costs will be based on the time the equipment or machinery is in use on the changed Work and the costs of transportation, loading, unloading, assembly, dismantling, and removal when directly attributable to the changed Work. The cost of any such equipment or machinery, or parts thereof, must cease to accrue when the use thereof is no longer necessary for the changed Work.

- d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
- e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
- f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of builder's risk or other property insurance established in accordance with Paragraph 6.04), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses will be included in the Cost of the Work for the purpose of determining Contractor's fee.

- g. The cost of utilities, fuel, and sanitary facilities at the Site.
- h. Minor expenses such as communication service at the Site, express and courier services, and similar petty cash items in connection with the Work.
- i. The costs of premiums for all bonds and insurance that Contractor is required by the Contract Documents to purchase and maintain.

C. *Costs Excluded*: The term Cost of the Work does not include any of the following items:

- 1. Payroll costs and other compensation of Contractor's officers, executives, principals, general managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by the Contractor's fee.
- 2. The cost of purchasing, renting, or furnishing small tools and hand tools.
- 3. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
- 4. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
- 5. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
- 6. Expenses incurred in preparing and advancing Claims.
- 7. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 13.01.B.

D. *Contractor's Fee*

- 1. When the Work as a whole is performed on the basis of cost-plus-a-fee, then:
  - a. Contractor's fee for the Work set forth in the Contract Documents as of the Effective Date of the Contract will be determined as set forth in the Agreement.
  - b. for any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work, Contractor's fee will be determined as follows:
    - 1) When the fee for the Work as a whole is a percentage of the Cost of the Work, the fee will automatically adjust as the Cost of the Work changes.
    - 2) When the fee for the Work as a whole is a fixed fee, the fee for any additions or deletions will be determined in accordance with Paragraph 11.07.C.2.
- 2. When the Work as a whole is performed on the basis of a stipulated sum, or any other basis other than cost-plus-a-fee, then Contractor's fee for any Work covered by a Change

Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work will be determined in accordance with Paragraph 11.07.C.2.

- E. *Documentation and Audit*: Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 13, Contractor and pertinent Subcontractors will establish and maintain records of the costs in accordance with generally accepted accounting practices. Subject to prior written notice, Owner will be afforded reasonable access, during normal business hours, to all Contractor's accounts, records, books, correspondence, instructions, drawings, receipts, vouchers, memoranda, and similar data relating to the Cost of the Work and Contractor's fee. Contractor shall preserve all such documents for a period of three years after the final payment by Owner. Pertinent Subcontractors will afford such access to Owner, and preserve such documents, to the same extent required of Contractor.

### 13.02 Allowances

- A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.
- B. *Cash Allowances*: Contractor agrees that:
1. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
  2. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment for any of the foregoing will be valid.
- C. *Owner's Contingency Allowance*: Contractor agrees that an Owner's contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.
- D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor for Work covered by allowances, and the Contract Price will be correspondingly adjusted.

### 13.03 Unit Price Work

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Payments to Contractor for Unit Price Work will be based on actual quantities.
- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision

thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, and the final adjustment of Contract Price will be set forth in a Change Order, subject to the provisions of the following paragraph.

E. *Adjustments in Unit Price*

1. Contractor or Owner shall be entitled to an adjustment in the unit price with respect to an item of Unit Price Work if:
  - a. the quantity of the item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and
  - b. Contractor's unit costs to perform the item of Unit Price Work have changed materially and significantly as a result of the quantity change.
2. The adjustment in unit price will account for and be coordinated with any related changes in quantities of other items of Work, and in Contractor's costs to perform such other Work, such that the resulting overall change in Contract Price is equitable to Owner and Contractor.
3. Adjusted unit prices will apply to all units of that item.

**ARTICLE 14—TESTS AND INSPECTIONS; CORRECTION, REMOVAL, OR ACCEPTANCE OF DEFECTIVE WORK**

14.01 *Access to Work*

- A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and authorities having jurisdiction have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply with such procedures and programs as applicable.

14.02 *Tests, Inspections, and Approvals*

- A. Contractor shall give Engineer timely notice of readiness of the Work (or specific parts thereof) for all required inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests.
- B. Owner shall retain and pay for the services of an independent inspector, testing laboratory, or other qualified individual or entity to perform all inspections and tests expressly required by the Contract Documents to be furnished and paid for by Owner, except that costs incurred in connection with tests or inspections of covered Work will be governed by the provisions of Paragraph 14.05.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.

- D. Contractor shall be responsible for arranging, obtaining, and paying for all inspections and tests required:
1. by the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to Owner;
  2. to attain Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work;
  3. by manufacturers of equipment furnished under the Contract Documents;
  4. for testing, adjusting, and balancing of mechanical, electrical, and other equipment to be incorporated into the Work; and
  5. for acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

Such inspections and tests will be performed by independent inspectors, testing laboratories, or other qualified individuals or entities acceptable to Owner and Engineer.

- E. If the Contract Documents require the Work (or part thereof) to be approved by Owner, Engineer, or another designated individual or entity, then Contractor shall assume full responsibility for arranging and obtaining such approvals.
- F. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation. Such uncovering will be at Contractor's expense unless Contractor had given Engineer timely notice of Contractor's intention to cover the same and Engineer had not acted with reasonable promptness in response to such notice.

#### 14.03 *Defective Work*

- A. *Contractor's Obligation:* It is Contractor's obligation to assure that the Work is not defective.
- B. *Engineer's Authority:* Engineer has the authority to determine whether Work is defective, and to reject defective Work.
- C. *Notice of Defects:* Prompt written notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor.
- D. *Correction, or Removal and Replacement:* Promptly after receipt of written notice of defective Work, Contractor shall correct all such defective Work, whether or not fabricated, installed, or completed, or, if Engineer has rejected the defective Work, remove it from the Project and replace it with Work that is not defective.
- E. *Preservation of Warranties:* When correcting defective Work, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.
- F. *Costs and Damages:* In addition to its correction, removal, and replacement obligations with respect to defective Work, Contractor shall pay all claims, costs, losses, and damages arising out of or relating to defective Work, including but not limited to the cost of the inspection, testing, correction, removal, replacement, or reconstruction of such defective Work, fines levied against Owner by governmental authorities because the Work is defective, and the costs of repair or replacement of work of others resulting from defective Work. Prior to final payment, if Owner and Contractor are unable to agree as to the measure of such claims, costs,

losses, and damages resulting from defective Work, then Owner may impose a reasonable set-off against payments due under Article 15.

#### 14.04 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner prefers to accept it, Owner may do so (subject, if such acceptance occurs prior to final payment, to Engineer's confirmation that such acceptance is in general accord with the design intent and applicable engineering principles, and will not endanger public safety). Contractor shall pay all claims, costs, losses, and damages attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness), and for the diminished value of the Work to the extent not otherwise paid by Contractor. If any such acceptance occurs prior to final payment, the necessary revisions in the Contract Documents with respect to the Work will be incorporated in a Change Order. If the parties are unable to agree as to the decrease in the Contract Price, reflecting the diminished value of Work so accepted, then Owner may impose a reasonable set-off against payments due under Article 15. If the acceptance of defective Work occurs after final payment, Contractor shall pay an appropriate amount to Owner.

#### 14.05 *Uncovering Work*

- A. Engineer has the authority to require additional inspection or testing of the Work, whether or not the Work is fabricated, installed, or completed.
- B. If any Work is covered contrary to the written request of Engineer, then Contractor shall, if requested by Engineer, uncover such Work for Engineer's observation, and then replace the covering, all at Contractor's expense.
- C. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, then Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, and provide all necessary labor, material, and equipment.
  - 1. If it is found that the uncovered Work is defective, Contractor shall be responsible for all claims, costs, losses, and damages arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and pending Contractor's full discharge of this responsibility the Owner shall be entitled to impose a reasonable set-off against payments due under Article 15.
  - 2. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, then Contractor may submit a Change Proposal within 30 days of the determination that the Work is not defective.

#### 14.06 *Owner May Stop the Work*

- A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, then Owner may order Contractor to stop the Work,

or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work will not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

**14.07 Owner May Correct Defective Work**

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace defective Work as required by Engineer, then Owner may, after 7 days' written notice to Contractor, correct or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 14.07, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this paragraph.
- C. All claims, costs, losses, and damages incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 14.07 will be charged against Contractor as set-offs against payments due under Article 15. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.
- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 14.07.

**ARTICLE 15—PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD**

**15.01 Progress Payments**

- A. *Basis for Progress Payments:* The Schedule of Values established as provided in Article 2 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments for Unit Price Work will be based on the number of units completed during the pay period, as determined under the provisions of Paragraph 13.03. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period.
- B. *Applications for Payments*
  - 1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents.
  - 2. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment must also be accompanied by: (a) a bill of sale, invoice, copies of subcontract or purchase order payments, or other documentation

establishing full payment by Contractor for the materials and equipment; (b) at Owner's request, documentation warranting that Owner has received the materials and equipment free and clear of all Liens; and (c) evidence that the materials and equipment are covered by appropriate property insurance, a warehouse bond, or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.

3. Beginning with the second Application for Payment, each Application must include an affidavit of Contractor stating that all previous progress payments received by Contractor have been applied to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
4. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

C. *Review of Applications*

1. Engineer will, within 10 days after receipt of each Application for Payment, including each resubmittal, either indicate in writing a recommendation of payment and present the Application to Owner, or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:
  - a. the Work has progressed to the point indicated;
  - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 13.03, and any other qualifications stated in the recommendation); and
  - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
  - a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract; or
  - b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.

4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
  - a. to supervise, direct, or control the Work;
  - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto;
  - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work;
  - d. to make any examination to ascertain how or for what purposes Contractor has used the money paid by Owner; or
  - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 15.01.C.2.
6. Engineer will recommend reductions in payment (set-offs) necessary in Engineer's opinion to protect Owner from loss because:
  - a. the Work is defective, requiring correction or replacement;
  - b. the Contract Price has been reduced by Change Orders;
  - c. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
  - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible; or
  - e. Engineer has actual knowledge of the occurrence of any of the events that would constitute a default by Contractor and therefore justify termination for cause under the Contract Documents.

**D. *Payment Becomes Due***

1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended (subject to any Owner set-offs) will become due, and when due will be paid by Owner to Contractor.

**E. *Reductions in Payment by Owner***

1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:
  - a. Claims have been made against Owner based on Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages resulting from Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;

- b. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;
  - c. Contractor has failed to provide and maintain required bonds or insurance;
  - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;
  - e. Owner has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;
  - f. The Work is defective, requiring correction or replacement;
  - g. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
  - h. The Contract Price has been reduced by Change Orders;
  - i. An event has occurred that would constitute a default by Contractor and therefore justify a termination for cause;
  - j. Liquidated or other damages have accrued as a result of Contractor's failure to achieve Milestones, Substantial Completion, or final completion of the Work;
  - k. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens; or
  - l. Other items entitle Owner to a set-off against the amount recommended.
2. If Owner imposes any set-off against payment, whether based on its own knowledge or on the written recommendations of Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and the specific amount of the reduction, and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, if Contractor remedies the reasons for such action. The reduction imposed will be binding on Contractor unless it duly submits a Change Proposal contesting the reduction.
  3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld will be treated as an amount due as determined by Paragraph 15.01.D.1 and subject to interest as provided in the Agreement.

**15.02 Contractor's Warranty of Title**

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment furnished under the Contract will pass to Owner free and clear of (1) all Liens and other title defects, and (2) all patent, licensing, copyright, or royalty obligations, no later than 7 days after the time of payment by Owner.

**15.03 Substantial Completion**

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete and request that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time

submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.

- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.
- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a preliminary certificate of Substantial Completion which will fix the date of Substantial Completion. Engineer shall attach to the certificate a punch list of items to be completed or corrected before final payment. Owner shall have 7 days after receipt of the preliminary certificate during which to make written objection to Engineer as to any provisions of the certificate or attached punch list. If, after considering the objections to the provisions of the preliminary certificate, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the preliminary certificate to Owner, notify Contractor in writing that the Work is not substantially complete, stating the reasons therefor. If Owner does not object to the provisions of the certificate, or if despite consideration of Owner's objections Engineer concludes that the Work is substantially complete, then Engineer will, within said 14 days, execute and deliver to Owner and Contractor a final certificate of Substantial Completion (with a revised punch list of items to be completed or corrected) reflecting such changes from the preliminary certificate as Engineer believes justified after consideration of any objections from Owner.
- D. At the time of receipt of the preliminary certificate of Substantial Completion, Owner and Contractor will confer regarding Owner's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner. Unless Owner and Contractor agree otherwise in writing, Owner shall bear responsibility for security, operation, protection of the Work, property insurance, maintenance, heat, and utilities upon Owner's use or occupancy of the Work.
- E. After Substantial Completion the Contractor shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Contractor may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.
- F. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the punch list.

#### 15.04 *Partial Use or Occupancy*

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without

significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:

1. At any time, Owner may request in writing that Contractor permit Owner to use or occupy any such part of the Work that Owner believes to be substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 15.03.A through 15.03.E for that part of the Work.
2. At any time, Contractor may notify Owner and Engineer in writing that Contractor considers any such part of the Work substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 15.03 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 6.04 regarding builder's risk or other property insurance.

#### 15.05 *Final Inspection*

- A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work, or agreed portion thereof, is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

#### 15.06 *Final Payment*

##### A. *Application for Payment*

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, annotated record documents (as provided in Paragraph 7.12), and other documents, Contractor may make application for final payment.
2. The final Application for Payment must be accompanied (except as previously delivered) by:
  - a. all documentation called for in the Contract Documents;
  - b. consent of the surety, if any, to final payment;
  - c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.

- d. a list of all duly pending Change Proposals and Claims; and
  - e. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 15.06.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (b) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien, or Owner at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.
- B. *Engineer's Review of Final Application and Recommendation of Payment:* If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract have been fulfilled, Engineer will, within 10 days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the final Application for Payment to Owner for payment. Such recommendation will account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect to progress payments. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.
- C. *Notice of Acceptability:* In support of its recommendation of payment of the final Application for Payment, Engineer will also give written notice to Owner and Contractor that the Work is acceptable, subject to stated limitations in the notice and to the provisions of Paragraph 15.07.
- D. *Completion of Work:* The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment and issuance of notice of the acceptability of the Work.
- E. *Final Payment Becomes Due:* Upon receipt from Engineer of the final Application for Payment and accompanying documentation, Owner shall set off against the amount recommended by Engineer for final payment any further sum to which Owner is entitled, including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions of this Contract with respect to progress payments. Owner shall pay the resulting balance due to Contractor within 30 days of Owner's receipt of the final Application for Payment from Engineer.

#### 15.07 *Waiver of Claims*

- A. By making final payment, Owner waives its claim or right to liquidated damages or other damages for late completion by Contractor, except as set forth in an outstanding Claim,

appeal under the provisions of Article 17, set-off, or express reservation of rights by Owner. Owner reserves all other claims or rights after final payment.

- B. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted as a Claim, or appealed under the provisions of Article 17.

#### 15.08 *Correction Period*

- A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the Supplementary Conditions or the terms of any applicable special guarantee required by the Contract Documents), Owner gives Contractor written notice that any Work has been found to be defective, or that Contractor's repair of any damages to the Site or adjacent areas has been found to be defective, then after receipt of such notice of defect Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
  - 1. correct the defective repairs to the Site or such adjacent areas;
  - 2. correct such defective Work;
  - 3. remove the defective Work from the Project and replace it with Work that is not defective, if the defective Work has been rejected by Owner, and
  - 4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others, or to other land or areas resulting from the corrective measures.
- B. Owner shall give any such notice of defect within 60 days of the discovery that such Work or repairs is defective. If such notice is given within such 60 days but after the end of the correction period, the notice will be deemed a notice of defective Work under Paragraph 7.17.B.
- C. If, after receipt of a notice of defect within 60 days and within the correction period, Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. Contractor shall pay all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others). Contractor's failure to pay such costs, losses, and damages within 10 days of invoice from Owner will be deemed the start of an event giving rise to a Claim under Paragraph 12.01.B, such that any related Claim must be brought within 30 days of the failure to pay.
- D. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.
- E. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

- F. Contractor's obligations under this paragraph are in addition to all other obligations and warranties. The provisions of this paragraph are not to be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

## **ARTICLE 16—SUSPENSION OF WORK AND TERMINATION**

### **16.01 *Owner May Suspend Work***

- A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by written notice to Contractor and Engineer. Such notice will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be entitled to an adjustment in the Contract Price or an extension of the Contract Times directly attributable to any such suspension. Any Change Proposal seeking such adjustments must be submitted no later than 30 days after the date fixed for resumption of Work.

### **16.02 *Owner May Terminate for Cause***

- A. The occurrence of any one or more of the following events will constitute a default by Contractor and justify termination for cause:
  - 1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment, or failure to adhere to the Progress Schedule);
  - 2. Failure of Contractor to perform or otherwise to comply with a material term of the Contract Documents;
  - 3. Contractor's disregard of Laws or Regulations of any public body having jurisdiction; or
  - 4. Contractor's repeated disregard of the authority of Owner or Engineer.
- B. If one or more of the events identified in Paragraph 16.02.A occurs, then after giving Contractor (and any surety) 10 days' written notice that Owner is considering a declaration that Contractor is in default and termination of the Contract, Owner may proceed to:
  - 1. declare Contractor to be in default, and give Contractor (and any surety) written notice that the Contract is terminated; and
  - 2. enforce the rights available to Owner under any applicable performance bond.
- C. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and complete the Work as Owner may deem expedient.
- D. Owner may not proceed with termination of the Contract under Paragraph 16.02.B if Contractor within 7 days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.
- E. If Owner proceeds as provided in Paragraph 16.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds the cost to complete the Work, including all related claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects,

attorneys, and other professionals) sustained by Owner, such excess will be paid to Contractor. If the cost to complete the Work including such related claims, costs, losses, and damages exceeds such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this paragraph, Owner shall not be required to obtain the lowest price for the Work performed.

- F. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue, or any rights or remedies of Owner against Contractor or any surety under any payment bond or performance bond. Any retention or payment of money due Contractor by Owner will not release Contractor from liability.
- G. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 6.01.A, the provisions of that bond will govern over any inconsistent provisions of Paragraphs 16.02.B and 16.02.D.

#### 16.03 *Owner May Terminate for Convenience*

- A. Upon 7 days' written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
  - 1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
  - 2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses; and
  - 3. other reasonable expenses directly attributable to termination, including costs incurred to prepare a termination for convenience cost proposal.
- B. Contractor shall not be paid for any loss of anticipated profits or revenue, post-termination overhead costs, or other economic loss arising out of or resulting from such termination.

#### 16.04 *Contractor May Stop Work or Terminate*

- A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (3) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon 7 days' written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the contract and recover from Owner payment on the same terms as provided in Paragraph 16.03.
- B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, 7 days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The

provisions of this paragraph are not intended to preclude Contractor from submitting a Change Proposal for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this paragraph.

## **ARTICLE 17—FINAL RESOLUTION OF DISPUTES**

### **17.01 *Methods and Procedures***

- A. *Disputes Subject to Final Resolution:* The following disputed matters are subject to final resolution under the provisions of this article:
1. A timely appeal of an approval in part and denial in part of a Claim, or of a denial in full, pursuant to Article 12; and
  2. Disputes between Owner and Contractor concerning the Work, or obligations under the Contract Documents, that arise after final payment has been made.
- B. *Final Resolution of Disputes:* For any dispute subject to resolution under this article, Owner or Contractor may:
1. elect in writing to invoke the dispute resolution process provided for in the Supplementary Conditions;
  2. agree with the other party to submit the dispute to another dispute resolution process; or
  3. if no dispute resolution process is provided for in the Supplementary Conditions or mutually agreed to, give written notice to the other party of the intent to submit the dispute to a court of competent jurisdiction.

## **ARTICLE 18—MISCELLANEOUS**

### **18.01 *Giving Notice***

- A. Whenever any provision of the Contract requires the giving of written notice to Owner, Engineer, or Contractor, it will be deemed to have been validly given only if delivered:
1. in person, by a commercial courier service or otherwise, to the recipient's place of business;
  2. by registered or certified mail, postage prepaid, to the recipient's place of business; or
  3. by e-mail to the recipient, with the words "Formal Notice" or similar in the e-mail's subject line.

### **18.02 *Computation of Times***

- A. When any period of time is referred to in the Contract by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

18.03 *Cumulative Remedies*

- A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract. The provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

18.04 *Limitation of Damages*

- A. With respect to any and all Change Proposals, Claims, disputes subject to final resolution, and other matters at issue, neither Owner nor Engineer, nor any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, shall be liable to Contractor for any claims, costs, losses, or damages sustained by Contractor on or in connection with any other project or anticipated project.

18.05 *No Waiver*

- A. A party's non-enforcement of any provision will not constitute a waiver of that provision, nor will it affect the enforceability of that provision or of the remainder of this Contract.

18.06 *Survival of Obligations*

- A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract, as well as all continuing obligations indicated in the Contract, will survive final payment, completion, and acceptance of the Work or termination of the Contract or of the services of Contractor.

18.07 *Controlling Law*

- A. This Contract is to be governed by the law of the state in which the Project is located.

18.08 *Assignment of Contract*

- A. Unless expressly agreed to elsewhere in the Contract, no assignment by a party to this Contract of any rights under or interests in the Contract will be binding on the other party without the written consent of the party sought to be bound; and, specifically but without limitation, money that may become due and money that is due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract.

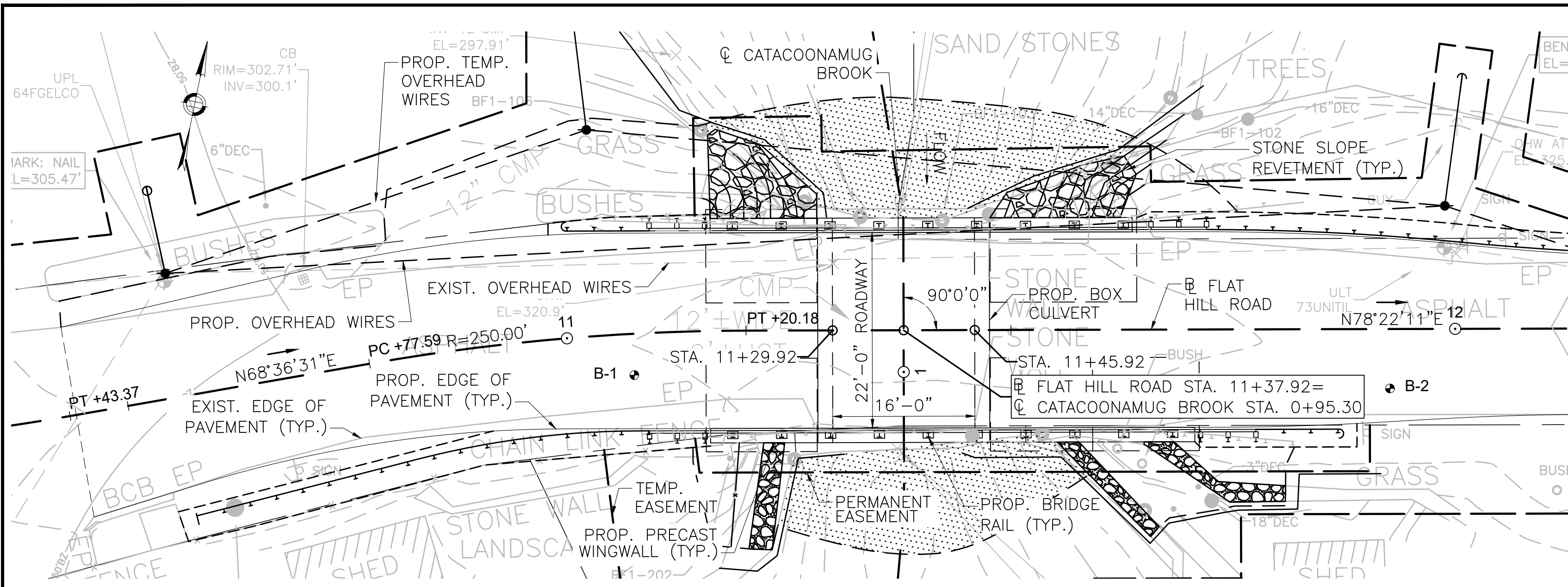
18.09 *Successors and Assigns*

- A. Owner and Contractor each binds itself, its successors, assigns, and legal representatives to the other party hereto, its successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

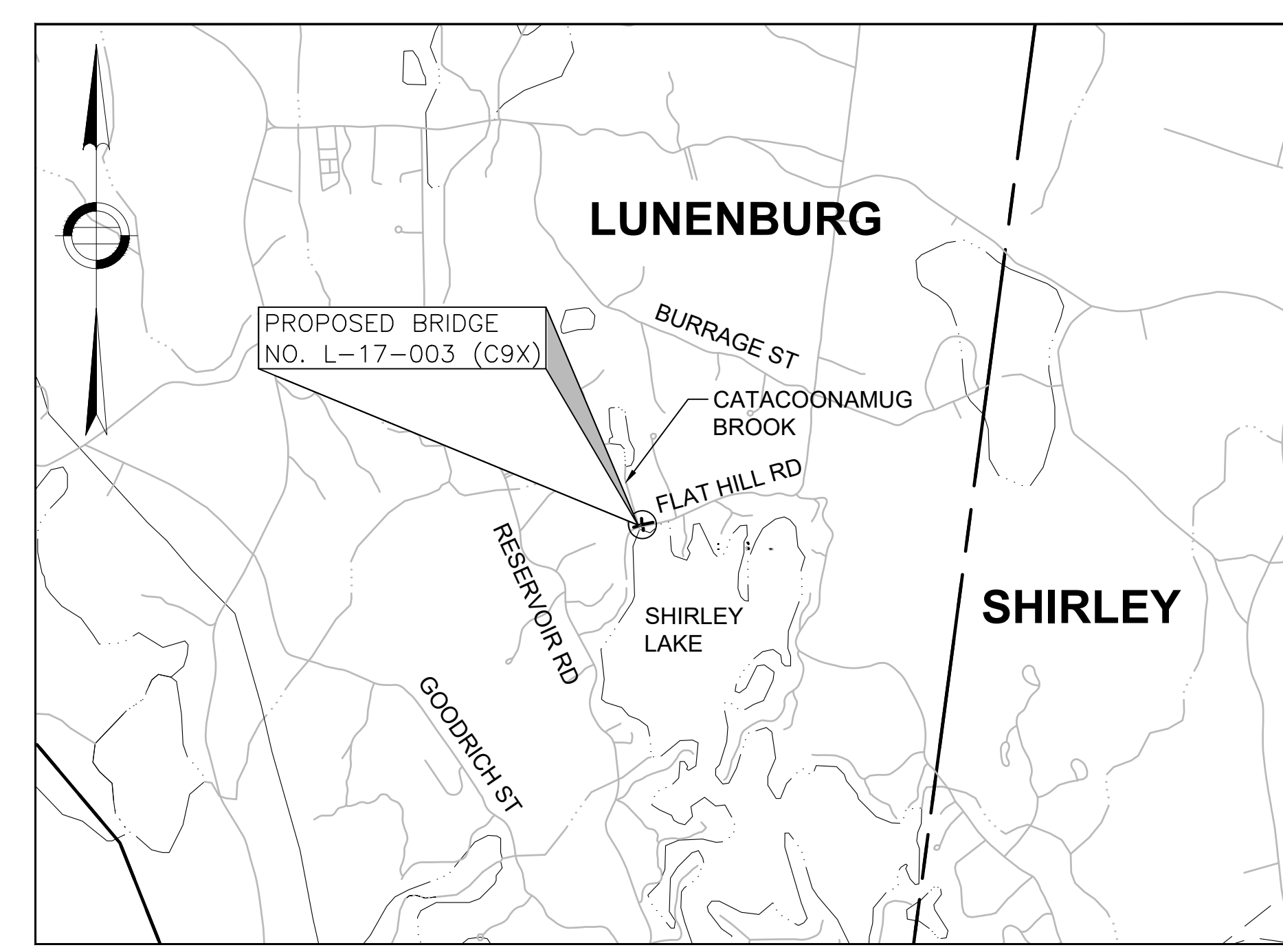
18.10 *Headings*

- A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

# **ATTACHMENT C**



**KEY PLAN**  
SCALE: 1" = 10'

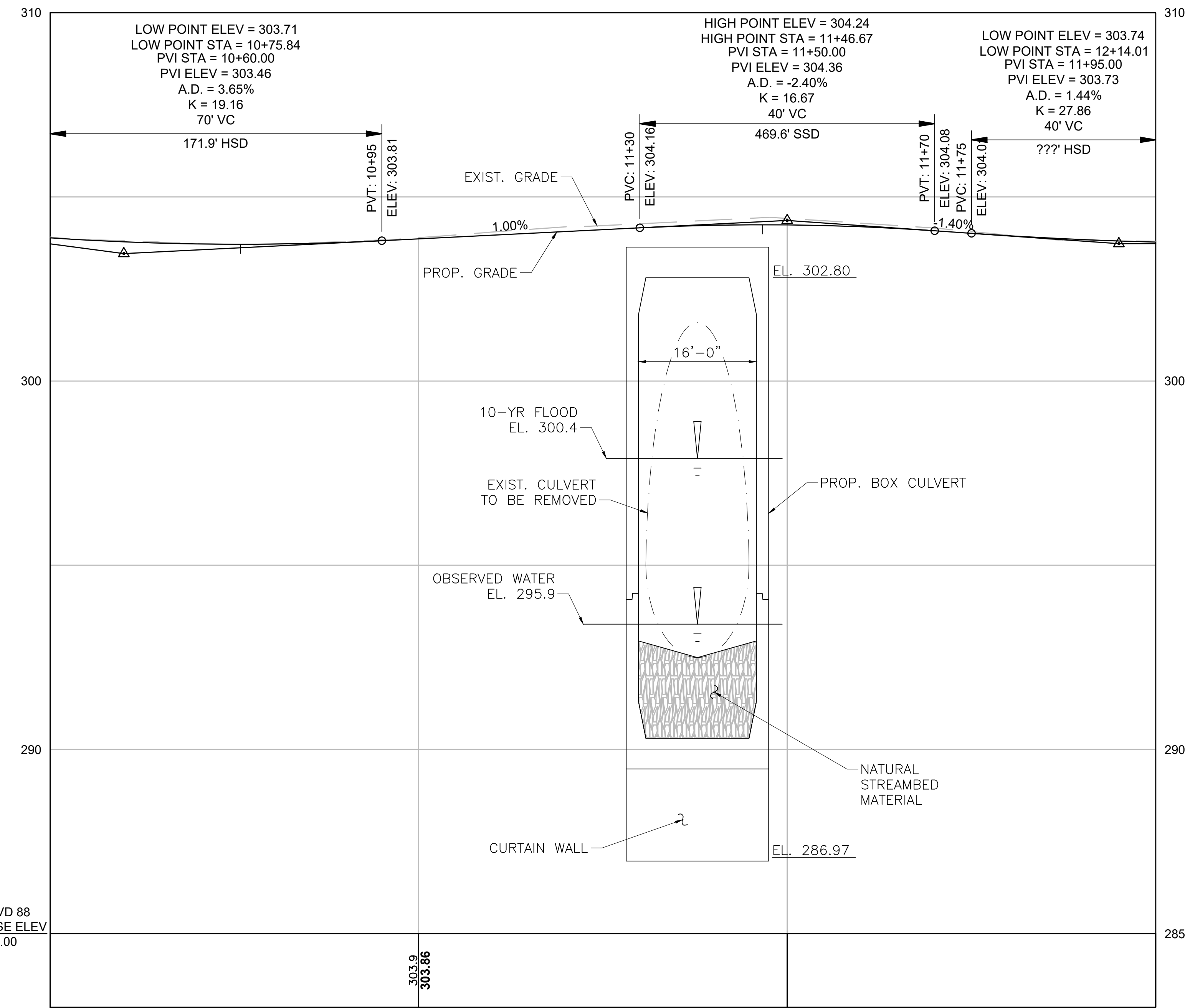


**LOCUS MAP**  
SCALE: 1" = 2000'

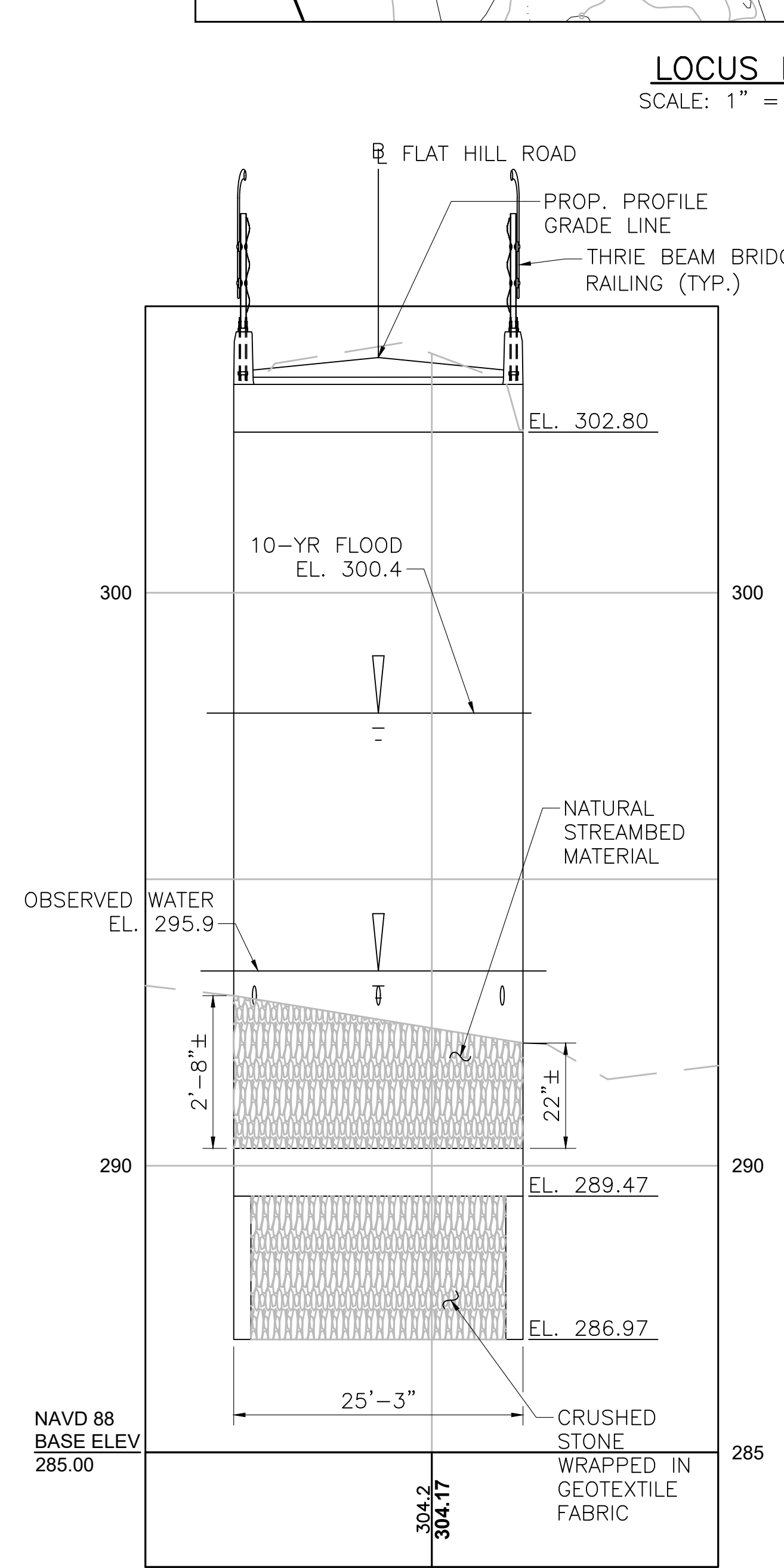
**LUNENBURG  
FLAT HILL ROAD**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	NFA	1	8
PROJECT FILE NO.		N/A	

**KEY PLAN, PROFILE AND INDEX**



**PROFILE ALONG B FLAT HILL ROAD**  
HORIZONTAL SCALE: 1" = 10'  
VERTICAL SCALE: 1/2" = 1'-0"

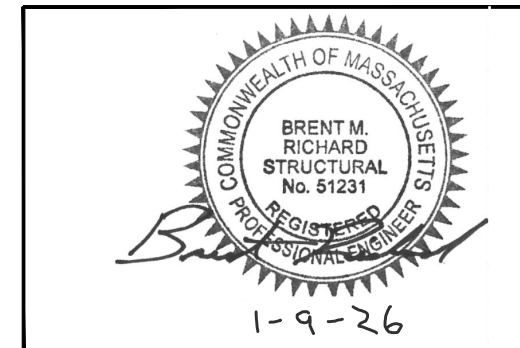


**PROFILE ALONG C CATACOONAMUG BROOK**  
HORIZONTAL SCALE: 1" = 10'  
VERTICAL SCALE: 1/2" = 1'-0"

**STRUCTURAL SHEETS INDEX:**

- 1 KEY PLAN, PROFILE AND INDEX
- 2 GENERAL NOTES
- 3 BORING LOGS
- 4 GENERAL PLAN AND ELEVATION
- 5 DEMOLITION & WATER CONTROL
- 6 CULVERT DETAILS
- 7 WINGWALL DETAILS
- 8 RAILING DETAILS

**CHAPTER 85 SECTION 35 REVIEW AND APPROVAL**  
IN ACCORDANCE AND COMPLIANCE WITH THE REQUIREMENTS OF CHAPTER 85 SECTION 35 OF THE MASSACHUSETTS GENERAL LAWS, THE CONTRACTOR SHALL SUBMIT TO THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION ALL CONSTRUCTION DRAWINGS AND DESIGN CALCULATIONS THAT SHALL BE USED TO FABRICATE AND CONSTRUCT THE STRUCTURE DENOTED ON THESE PLANS FOR REVIEW AND APPROVAL. THIS APPROVAL SHALL CONSTITUTE THE FINAL APPROVAL AS STIPULATED BY CHAPTER 85 SECTION 35 OF THE MASSACHUSETTS GENERAL LAWS.



**vhb**  
Vanasse Hangen Brustlin, Inc.  
260 Arsenal Place #2  
Watertown, MA 02472  
617.924.1770 FAX 617.924.2286

JAN 9, 2026 ISSUED FOR CONSTRUCTION

**massDOT**  
Department of Transportation  
Highway Division

**PROPOSED BRIDGE  
LUNENBURG  
FLAT HILL ROAD  
OVER CATACOONAMUG BROOK**  
MASSACHUSETTS DEPARTMENT OF TRANSPORTATION  
HIGHWAY DIVISION  
10 PARK PLAZA BOSTON, MASS

I:\vbb\proj\17031.00 Lunenburg\flat hill rd\asst\plans\17031.00\_BR(KEY).dwg

15031.00\_BR(KEY).DWG Plotted on 9-Jan-2026 1:55 PM

**GENERAL NOTES**

**DESIGN:**

IN ACCORDANCE WITH:

THE 2020 AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS LRFD BRIDGE DESIGN SPECIFICATIONS 9TH EDITION FOR HL-93 LOADING.

THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGES DATED 2024.

THE 2013 MASSACHUSETTS DEPARTMENT OF TRANSPORTATION LRFD BRIDGE MANUAL WITH 2020 REVISIONS.

THE 2011 AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS GUIDE SPECIFICATIONS FOR LRFD SEISMIC BRIDGE DESIGN WITH 2012 INTERIM REVISIONS.

THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A PDF COPY OF THE DESIGN COMPUTATIONS PREPARED AND STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN MASSACHUSETTS FOR THE PRECAST CULVERT AND CURTAIN WALLS (AND WINGWALLS IF PRECAST) FOR REVIEW AND ACCEPTANCE. THE DESIGN COMPUTATIONS SHALL CONSIDER ALL LOADINGS AS ARE APPROPRIATE FOR EACH STAGE OF FABRICATION, SHIPMENT, CONSTRUCTION, AND FINAL CONDITION.

**BENCH MARKS:**

- 1. NAIL AT U.P. 2964 FGELCO N3031181.2902, E604599.0076, EL. 305.47
- 2. NAIL AT U.P. #73 UNITIL N3031213.6620, E604739.4298, EL. 305.09

ELEVATIONS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM (NAVD88) OF 1988.

**DATE:**

TO BE PLACED ON THE FACE OF THE SOUTHEAST AND NORTHWEST WINGWALLS. A SHEET SHOWING SIZE AND CHARACTER OF NUMERALS WILL BE FURNISHED. THE DATE USED SHALL BE THE LATEST YEAR OF CONTRACT COMPLETION AS OF THE DATE THE FIRST WINGWALL IS CONSTRUCTED. BOTH WINGWALLS SHALL FEATURE THE SAME DATE.

**SURVEY NOTEBOOK:**

SURVEY PERFORMED BY:

VANASSE HANGEN BRUSTLIN, INC  
101 WALNUT STREET  
WATERTOWN, MA 02472

**UNSUITABLE MATERIAL:**

ALL UNSUITABLE MATERIAL SHALL BE REMOVED WITHIN THE LIMITS OF THE FOUNDATIONS OF THE STRUCTURE, AS DIRECTED BY THE ENGINEER.

**SEISMIC GROUND SHAKING HAZARD:**

DESIGN SPECTRA:

- As = 0.086g
- Sds = 0.18g
- Sd1 = 0.069g

SITE CLASS = C

SEISMIC DESIGN CATEGORY (SDC) = A

**GEOTECHNICAL REPORT:**

REFER TO GEOTECHNICAL REPORT, DATED APRIL 30, 2021, PREPARED BY GEODESIGN INCORPORATED.

**REINFORCEMENT:**

REINFORCING STEEL SHALL BE EPOXY COATED UNLESS OTHERWISE NOTED IN THE CONSTRUCTION DRAWINGS AND SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M31 GRADE 60. ALL BARS SHALL BE LAPPED AS FOLLOWS:

MODIFICATION CONDITION	#4 BARS	#5 BARS	#6 BARS
1. NONE	16"	19"	23"
2. 12" OF CONCRETE BELOW BAR	20"	25"	30"
3. COATED BARS, COVER <3db, OR CLEAR SPACING <6db	23"	29"	34"
4. COATED BARS, ALL OTHER CASES	18"	23"	27"
5. CONDITION 2, AND 3	26"	32"	39"
6. CONDITION 2, AND 4	24"	30"	36"

IF THE ABOVE BARS ARE SPACED 6 INCHES OR MORE ON CENTER, THE LAP LENGTH SHALL BE 80% OF THE LAP LENGTH GIVEN ABOVE. ALL OTHER BARS SHALL BE LAPPED AS SHOWN ON THE CONSTRUCTION DRAWINGS.

**CONSTRUCTION REQUIREMENTS AND PROCEDURES:**

THE CONTRACTOR SHALL TAKE THE PROPER PRECAUTIONS TO ENSURE THE STABILITY AND SAFE PERFORMANCE OF ALL STRUCTURAL ELEMENTS DURING DEMOLITION AND CONSTRUCTION. REFER TO APPROVED DEMOLITION/ERECTION PLANS.

IF THERE ARE REVISIONS TO APPROVED PLANS, THE CONTRACTOR SHALL SUBMIT THESE CHANGES TO THE ENGINEER OF RECORD AND MASSDOT FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.

CONTRACTOR SHALL DISPOSE OF ANY DEMOLITION DEBRIS, CONSTRUCTION DEBRIS, WOOD WASTES, CONTAMINATED SOILS, HAZARDOUS MATERIALS AND OTHER SPECIAL WASTES IN STRICT ACCORDANCE WITH APPLICABLE LAWS AND REGULATIONS.

ALL WORK SHALL CONFORM TO THE MASSDOT CONSTRUCTION STANDARD DETAILS DATED OCTOBER 2017.

**EXISTING CONDITIONS:**

THE CONTRACTOR SHALL DETERMINE AND ESTABLISH ALL DIMENSIONS AND DETAILS NECESSARY FOR COMPLETION OF ALL WORK BY FIELD MEASUREMENTS AND SURVEY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ADEQUACY AND ACCURACY THEREOF, AND SHALL NOT ORDER ANY MATERIAL OR COMMENCE ANY FABRICATION UNTIL HE HAS MADE THE REQUIRED MEASUREMENTS AND THE EXTENT OF THE PROPOSED WORK HAS BEEN APPROVED BY THE ENGINEER.

**UTILITIES:**

THE CONTRACTOR SHALL LOCATE AND PROTECT FROM DAMAGE ALL EXISTING UTILITIES.

**CONSTRUCTION JOINTS:**

CONSTRUCTION JOINTS, OTHER THAN THOSE SHOWN ON THE PLANS, WILL NOT BE PERMITTED WITHOUT THE APPROVAL OF THE ENGINEER.

**SCALES:**

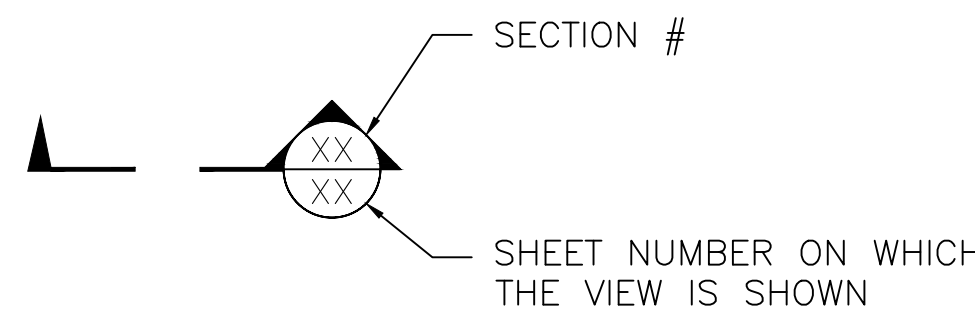
SCALES NOTED ON THE PLANS ARE NOT APPLICABLE TO REDUCED SIZE PRINTS. DIVIDE SCALES BY 2 FOR HALF-SIZE PRINTS.

**CONCRETE:**

WINGWALLS AND SAFETY CURBS SHALL BE 5000 PSI, 3/4 IN, 685 HP CEMENT CONCRETE. WINGWALLS MAY BE CAST IN PLACE AS SHOWN ON THE PLANS, OR ALTERNATIVELY MAY BE PRECAST. IN ADDITION, AN ALTERNATE PRECAST CONCRETE WALL SYSTEM MEETING THE SPECIFICATIONS MAY BE USED WITH THE APPROVAL OF THE ENGINEER.

PRECAST CULVERT AND CURTAIN WALLS SHALL BE HIGH PERFORMANCE CONCRETE UTILIZING A MASSDOT APPROVED CONCRETE MIX DESIGN. DESIGN STRENGTH SHALL BE PER FABRICATOR'S DESIGN. THE CONCRETE SHALL HAVE A MINIMUM STRENGTH OF 5000 PSI.

**SECTION MARK:**



**LUNENBURG  
FLAT HILL ROAD**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	NFA	2	8
PROJECT FILE NO.		N/A	

**GENERAL NOTES**

**HYDRAULIC DESIGN DATA**

DRAINAGE AREA:	8.56	SQUARE MILES
DESIGN FLOOD DISCHARGE:	424	CUBIC FEET PER SECOND
DESIGN FLOOD FREQUENCY:	10	YEARS
DESIGN FLOOD VELOCITY:	3.29	FEET PER SECOND
DESIGN FLOOD ELEVATION:	300.4	FEET, NAVD

**BASE (100-YEAR) FLOOD DATA**

BASE FLOOD DISCHARGE:	819	CUBIC FEET PER SECOND
BASE FLOOD ELEVATION:	302.0	FEET, NAVD

**DESIGN AND CHECK SCOUR DATA**

DESIGN SCOUR FLOOD EVENT RETURN FREQUENCY: 25 YEARS  
CHECK SCOUR FLOOD EVENT RETURN FREQUENCY: 50 YEARS

**FLOOD OF RECORD**

DISCHARGE:	UNKNOWN	CUBIC FEET PER SECOND
FREQUENCY (IF KNOWN):	UNKNOWN	YEARS
MAXIMUM ELEVATION:	UNKNOWN	FEET, NAVD
DATE:	UNKNOWN	MONTH, YEAR

HISTORY OF ICE FLOES: NO  
EVIDENCE OF SCOUR AND EROSION: YES, MINOR

**ESTIMATED QUANTITIES**

(NOT GUARANTEED)

DESCRIPTION	QUANTITY	UNIT
DEMOLITION OF BRIDGE NO. L-17-003 (6T1)	1	LS
UNCLASSIFIED EXCAVATION	150	CY
BRIDGE EXCAVATION	880	CY
GRAVEL BORROW FOR BACKFILLING STRUCTURES AND PIPES	100	CY
CRUSHED STONE FOR BRIDGE FOUNDATIONS	105	TON
SAWING AND SEALING JOINTS IN ASPHALT PAVEMENT AT BRIDGES	44	FT
TEMPORARY EXCAVATION SUPPORT	1	LS
CONTROL OF WATER, STRUCTURE NO. L-17-003 (C9X)	1	LS
BRIDGE STRUCTURE, BRIDGE NO. L-17-003 (C9X)	1	LS

JAN 9, 2026	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION
USE ONLY PRINTS OF LATEST DATE	

SHEET 2 OF 8 BRIDGE NO. L-17-003 (C9X)

BORING B-1  
 STATION: 11+07.36  
 OFFSET: 4.65' RIGHT  
 GROUND ELEVATION: 304.0'  
 N: 3031181.00  
 E: 604653.00

BORING B-2  
 STATION: 11+92.65  
 OFFSET: 6.69' RIGHT  
 GROUND ELEVATION: 303.5'  
 N: 3031197.00  
 E: 604737.00

LUNENBURG FLAT HILL ROAD			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	NFA	3	8
PROJECT FILE NO.		N/A	
BORING LOGS			

GEO DESIGN		BORING LOG		Boring No.: B-1	
Geotechnical / Construction / Environmental Engineers and Scientists P.O. Box 699 Windsor, VT 05089 Phone: 802-674-2033/Fax: 802-674-5943		Project Name Flat Hill Rd. Bridge Lunenburg, MA		Page No.: 1 of 2 File No.: 0837-96.0 Checked By: AJB	
Boring Company: New England Boring Foreman: Nolan Duffy GeoDesign Rep.: Dan Howey Date Started: October 20, 2020 Date Finished: October 20, 2020 N. Coordinate: 3031181 E. Coordinate: 604653 Ground Surface Elevation (feet): 304 Offset: 4.65		Casing: Flush Sampler: SS Date: 10/20/20, 9:00 Notes: See remarks Hammer WL: 140 lbs Hammer Fall: 30 in. Rig Type: Mobile B29 Track Hammer Type: Automatic		Groundwater Observations Depth (ft) Elev. (ft) Notes	
Sample Information				Sample Description	
Depth (ft)	Casing Above (ft)	Blows / 6 inch Interval	Strata Description		Symbol
			Depth (ft)	Classification System: Burmister	
EL. 304.0	S1-S8	18-10-0.5-16-17-19	Asphalt Fill (Silty Sand/Gravel with inferred Cobbles/Boulders)	S1) Dense, brown fine to coarse SAND and fine to coarse GRAVEL, trace Silt, moist. S2) Refusal, no recovery because split soon damaged and could not open. S3) Medium dense, brown fine to coarse SAND, some Silt, little fine Gravel, wet. S4) Medium dense, brown fine to coarse SAND and fine to coarse GRAVEL, little Silt, wet. S5) Loose, brown fine to coarse GRAVEL, little fine to coarse Sand (loosely drove piece of Gravel). S6) Medium dense, brown fine to coarse GRAVEL and fine to coarse SAND, trace Silt, wet.	
EL. 299.0	S3-S4	2-4-7-5-16-6			
EL. 294.0	S5-S6	2-9-8-5-3-3			
EL. 289.0	S7-S8	7-15-14-21			
EL. 284.0	S8-S9	0-19-13-12-14-14	16 Glacial Till 288.0	S7) Dense; S7A (top): brown fine to coarse SAND, trace fine Gravel, trace Silt, wet. S7B (bottom): Light brown, fine to medium Sand, some Silt, trace fine Gravel, moist/wet. S8) Medium dense, no recovery. S9) Medium dense, light brown fine to coarse SAND and fine to coarse GRAVEL, little Silt, wet.	
EL. 279.0	S10	13-24-13-32-53-504*		S10) Very dense, light brown fine to coarse SAND and SILT, trace fine Gravel, moist/wet.	
EL. 274.0	S11	15-29-10-17-17-19	16 Glacial Till (Continued)	S11) Dense, light brown fine to coarse SAND, some Silt, trace fine Gravel, moist/wet.	
EL. 269.0	S12	9-5-34-18-509*		S12) Refusal, light brown fine to coarse Sand, some Silt little fine Gravel, moist/wet.	
EL. 264.0	S13	2-0-38.5-502*	36.7 Bottom 267.3 of Exploration at 36.7 ft	S13) Refusal, recovery see Remark No. 5.	
EL. 259.0					
EL. 254.0					
EL. 249.0					
EL. 244.0					

B.O.F. WEST WINGWALLS & CULVERT EL. 286.97

B.O.F. SOUTHEAST WINGWALL EXTENSION EL. 293.14

B.O.F. EAST WINGWALLS & CULVERT EL. 286.97

GEO DESIGN		BORING LOG		Boring No.: B-2	
Geotechnical / Construction / Environmental Engineers and Scientists P.O. Box 699 Windsor, VT 05089 Phone: 802-674-2033/Fax: 802-674-5943		Project Name Flat Hill Rd. Bridge Lunenburg, MA		Page No.: 1 of 1 File No.: 0837-96.0 Checked By: AJB	
Boring Company: New England Boring Foreman: Nolan Duffy GeoDesign Rep.: Dan Howey Date Started: October 22, 2020 Date Finished: October 22, 2020 N. Coordinate: 3031197 E. Coordinate: 604737 Ground Surface Elevation (feet): 303.5 Offset: 6.69		Casing: Flush Sampler: SS Date: 10/22/20, 9:00 Notes: See remarks Hammer WL: 140 lbs Hammer Fall: 30 in. Rig Type: Mobile B29 Track Hammer Type: Automatic		Groundwater Observations Depth (ft) Elev. (ft) Notes	
Sample Information				Sample Description	
Depth (ft)	Casing Above (ft)	Blows / 6 inch Interval	Strata Description		Symbol
			Depth (ft)	Classification System: Burmister	
EL. 303.5	S1-S2	7-0.5-9-5-2	Asphalt Fill (Silty Sand/Gravel with inferred Cobbles/Boulders)	S1) Loose, brown fine to coarse SAND and fine to coarse GRAVEL, little Silt, moist. S2) Similar to S1.	
EL. 298.5	S3-S4	4-4-3-3-6-6		S3) Loose, brown fine to coarse SAND, some Silt, little fine to coarse Gravel, wet. S4) Medium dense, brown fine to coarse SAND and fine to coarse GRAVEL, little Silt, wet.	
EL. 293.5	S5	7-9-24-509*		S5) Refusal, brown fine to coarse SAND, some Silt, little fine Gravel, wet.	
EL. 288.5	S6-S7	8-13-7-16-8-17	13 Glacial Till 290.5	S6) Medium dense, light brown fine to coarse SAND, some Silt, some fine to coarse Gravel, moist/wet. S7) Medium dense, light brown fine to coarse SAND, some Silt, little fine to coarse Gravel, moist/wet.	
EL. 283.5	S8	8-19-9-12-509*		S8) Refusal, light brown fine to coarse SAND, some Silt, little fine to coarse Gravel, wet.	
EL. 278.5	C1	60-52-22 [REC= 87%; RQD= 47%]	21 Bedrock 282.5	C1) Poor quality, hard, fresh to slightly weathered, gray SCHIST with Quartz banding in bottom approximate 18 inches.	
EL. 273.5			27 Bottom 276.5 of Exploration at 27.0 ft		

NOTES:

1. LOCATION OF BORINGS FOR PROPOSED BRIDGE SHOWN ON THE KEY PLAN THUS: B-1
2. BORINGS ARE TAKEN FOR PURPOSE OF DESIGN AND SHOW CONDITIONS AT BORING POINTS ONLY, BUT DO NOT NECESSARILY SHOW THE NATURE OF THE MATERIALS TO BE ENCOUNTERED DURING CONSTRUCTION.
3. FIGURES IN COLUMNS INDICATE NUMBER OF BLOWS REQUIRED TO DRIVE A 1 3/8" I.D. SPLIT SPOON SAMPLER 6" USING A 140 POUND WEIGHT FALLING 30", UNLESS OTHERWISE NOTED.
4. ALL BORINGS FOR PROPOSED BRIDGE WERE MADE IN OCTOBER 2020.
5. BORINGS WERE MADE BY NEW ENGLAND BORING CONTRACTORS.
6. THE NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988 IS USED THROUGHOUT.

JAN 9, 2026	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION
USE ONLY PRINTS OF LATEST DATE	

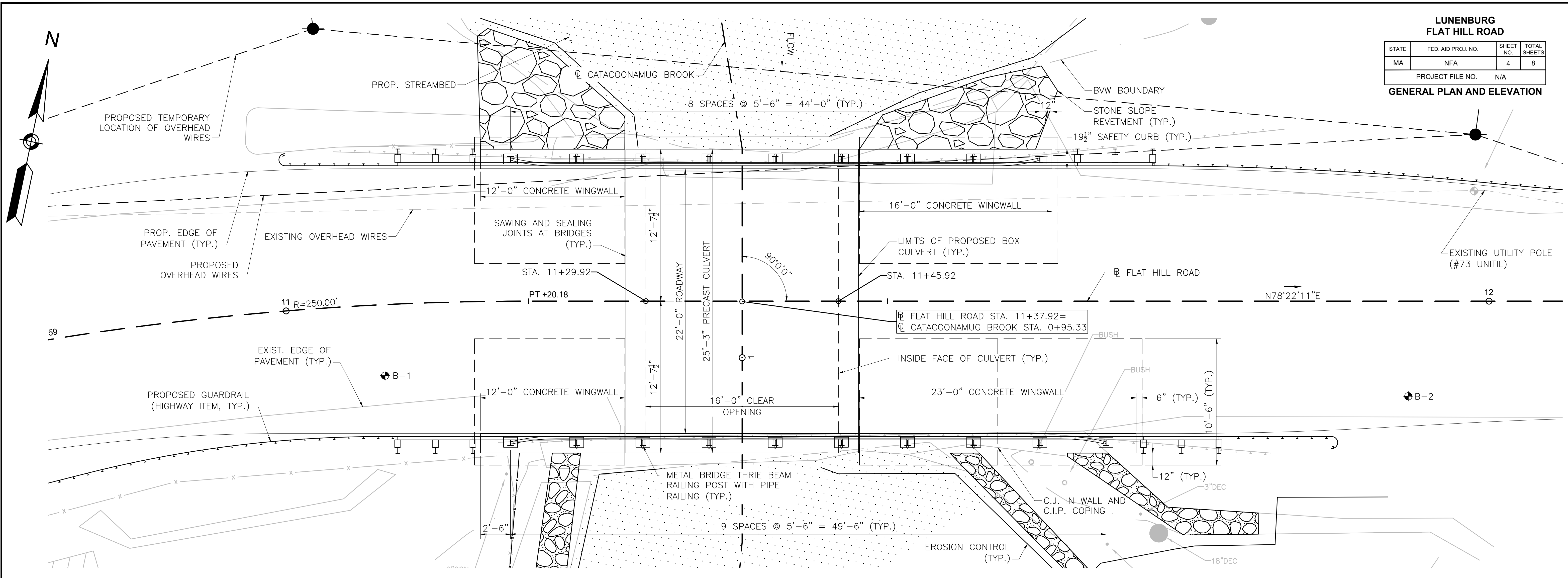
I:\bbs\proj\Wdr-TE\15031.00 Lunenburg-flat hill rd\cadd\plans\15031.00\_BR(BORING).dwg

15031.00\_BR(BORING).DWG Plotted on 9-Jan-2026 1:56 PM

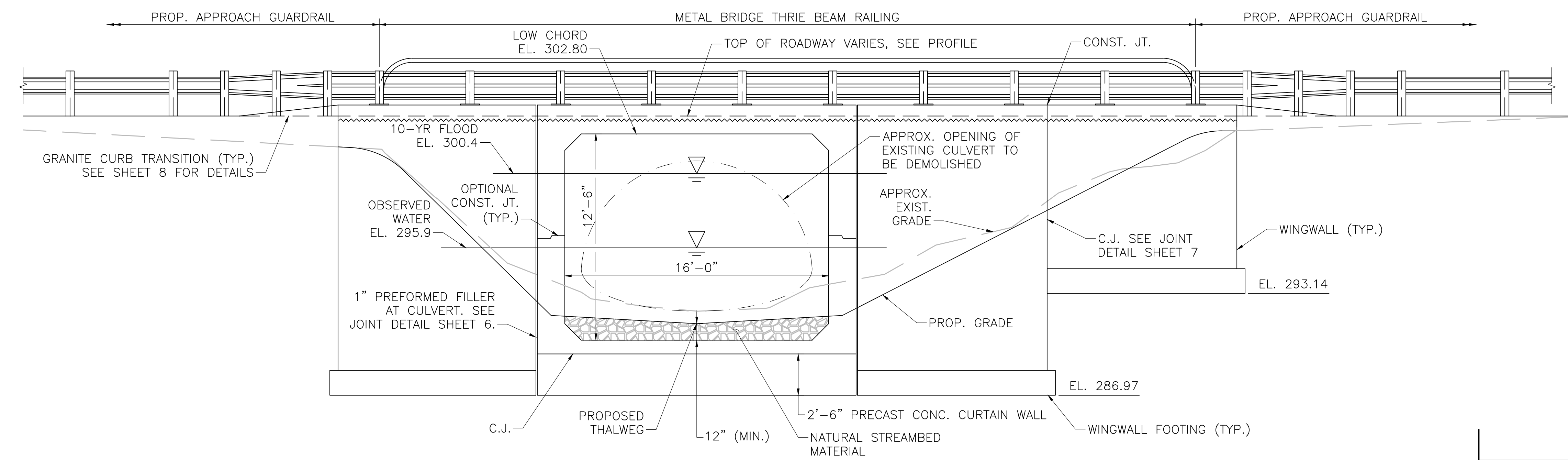
**LUNENBURG  
FLAT HILL ROAD**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	NFA	4	8
PROJECT FILE NO.		N/A	

**GENERAL PLAN AND ELEVATION**



**GENERAL PLAN**  
SCALE: 1/4" = 1'-0"

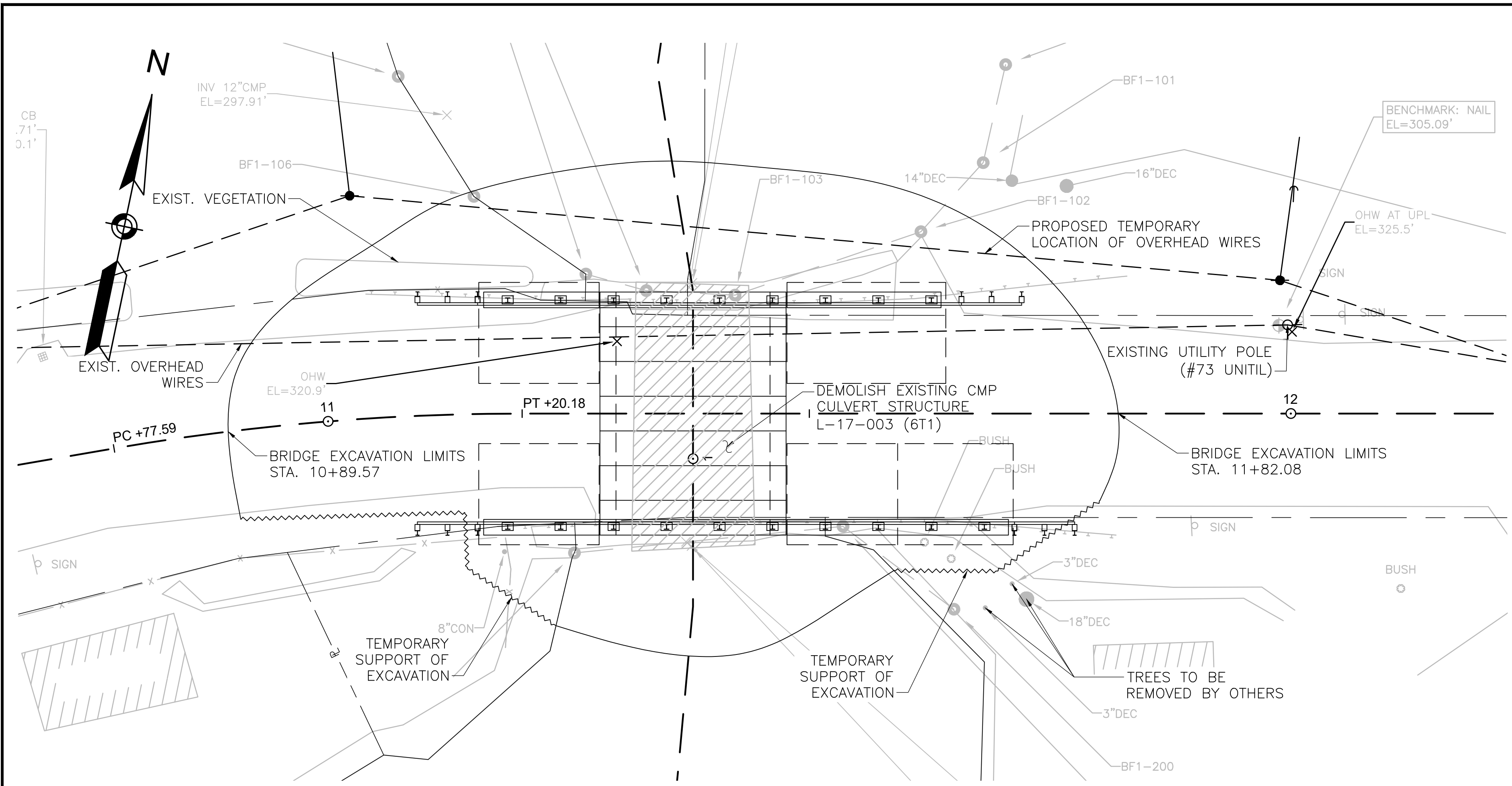


**ELEVATION**  
SCALE: 1/4" = 1'-0"

JAN 9, 2026	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION
USE ONLY PRINTS OF LATEST DATE	

I:\web\proj\proj\Wet-TE\15031.00 Lunenburg-flat hill road\as\plans\15031.00\_BR(GEN).dwg

15031.00\_BR(GEN).DWG Plotted on 9-Jan-2026 1:57 PM

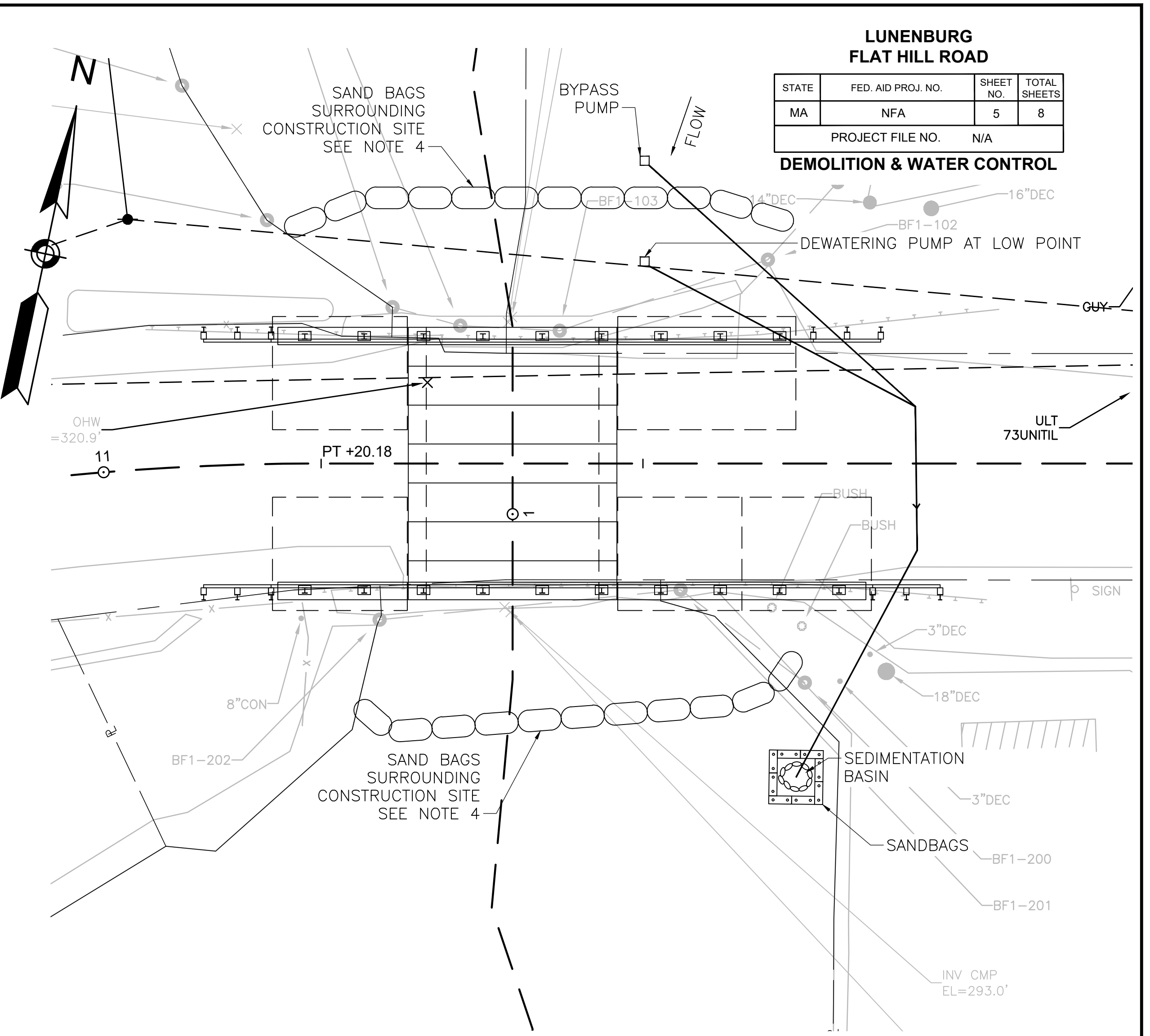


**DEMOLITION & EXCAVATION PLAN**

SCALE:  $\frac{1}{8}'' = 1'-0''$

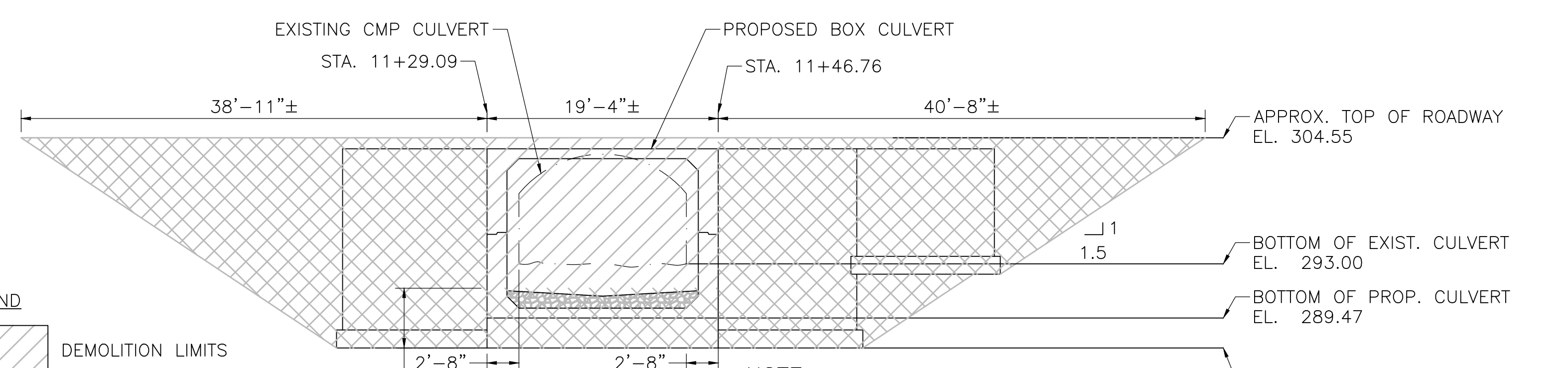
**LEGEND**

	DEMOLITION LIMITS
	BRIDGE EXCAVATION LIMITS



**CONTROL OF WATER PLAN**

SCALE:  $\frac{1}{8}'' = 1'-0''$



**EXCAVATION - SECTION AT FLAT HILL ROAD**

SCALE:  $\frac{1}{8}'' = 1'-0''$

**LEGEND**

	DEMOLITION LIMITS
	BRIDGE EXCAVATION LIMITS

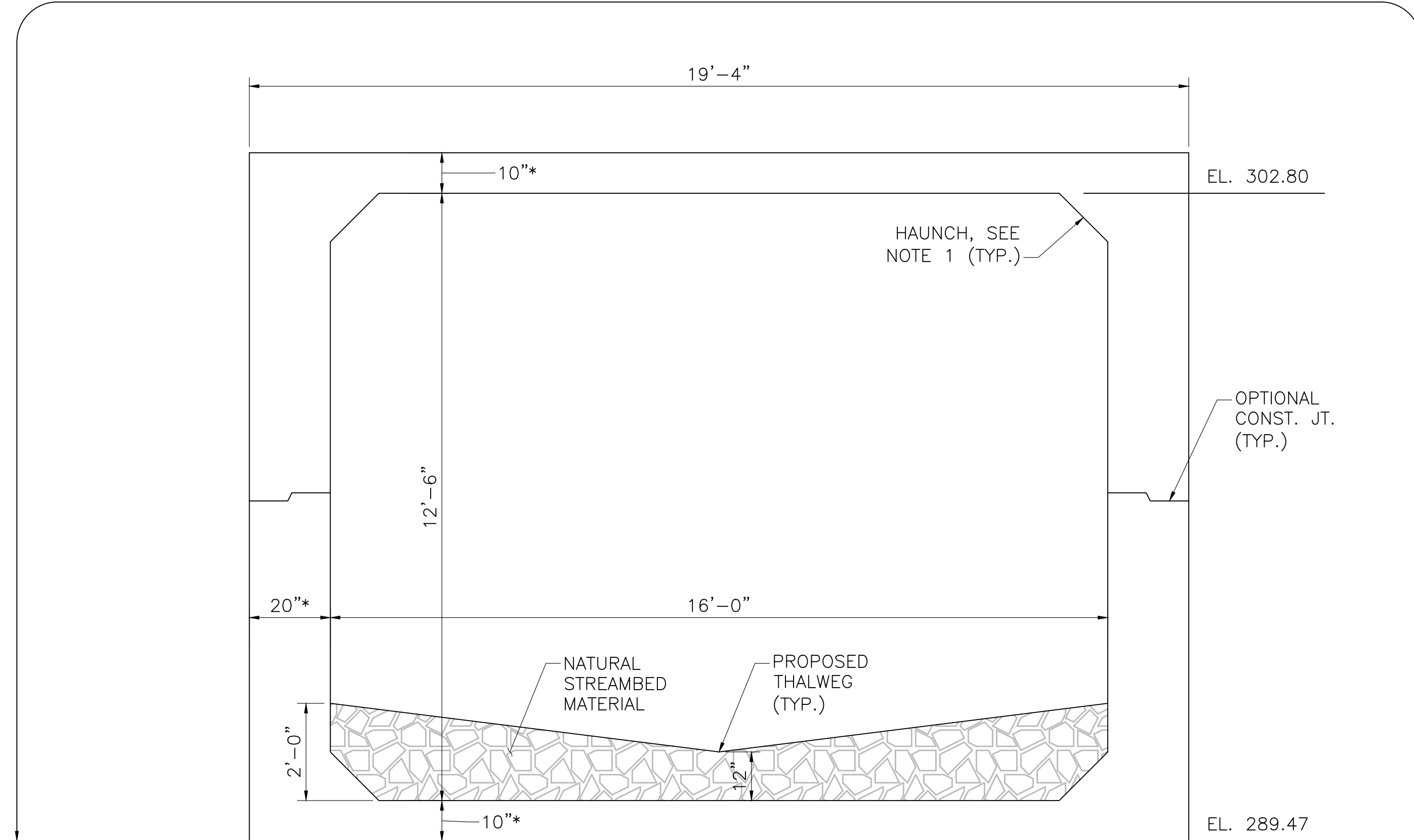
**NOTE:**  
TEMPORARY WATER CONTROL TO BE IN PLACE PRIOR TO ANY DEMOLITION BELOW THE WATER LINE.

**CONSTRUCTION NOTES:**

1. CONTRACTOR SHALL PERFORM ALL PROPOSED WORK IN COMPLIANCE WITH THE ORDER OF CONDITIONS ISSUED BY THE LUNENBURG CONSERVATION COMMISSION.
2. CONTRACTOR SHALL DISPOSE OF ANY UNSUITABLE OR EXCESS EARTH MATERIAL. EXCAVATE FROM THE SITE IN ACCORDANCE WITH ALL APPLICABLE LAWS AND REGULATIONS.
3. THE CONTRACTOR SHALL SUBMIT A WATER CONTROL PLAN TO THE ENGINEER FOR APPROVAL, PRIOR TO CONSTRUCTION. THE WATER CONTROL PLAN SHALL DEFINE AND DETAIL THE METHODS FOR CONTROL OF WATER AND TYPE OF INSTALLATION TO BE USED.
4. CONSTRUCTION WITHIN THE WATERWAY SHALL BE COMPLETED BETWEEN OCTOBER AND MARCH WHEN THE WATER LEVEL OF THE LAKE IS LOWERED. SEE SPECIFICATIONS FOR CONTROL OF WATER REQUIREMENTS.

JAN 9, 2026	ISSUED FOR CONSTRUCTION
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EXTENTS 12" WIDE PRECAST CONCRETE JOINT WRAP AT SEGMENT JOINTS, SEE DETAIL



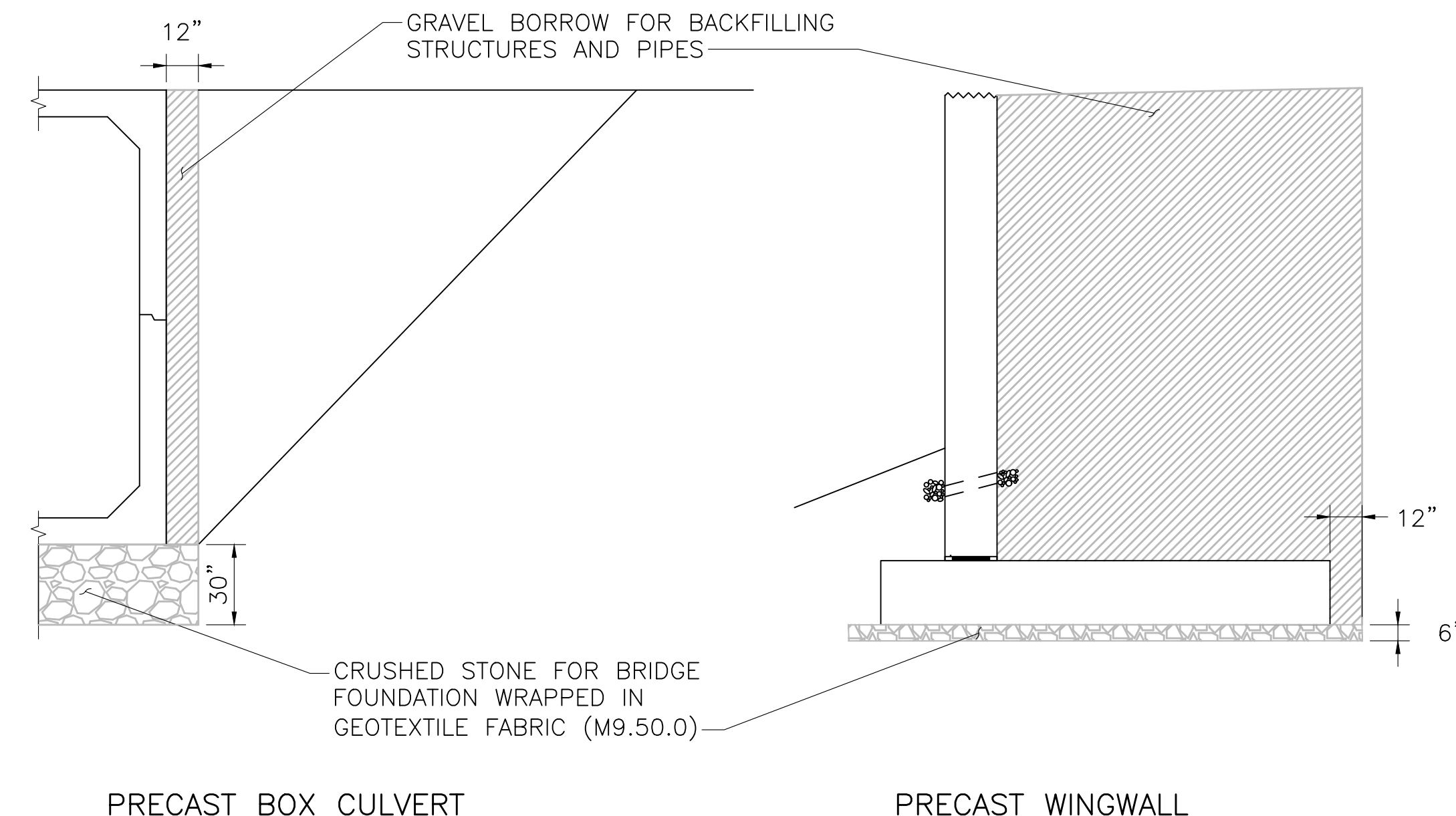
**NOTES:**

- \*PRECAST BOX CULVERT DIMENSIONS ARE CONCEPTUAL ONLY. PRECAST BOX CULVERT SHALL BE DESIGNED AND DETAILED BY THE CONTRACTOR IN ACCORDANCE WITH THE SPECIAL PROVISIONS AND THE 2013 MASSDOT BRIDGE MANUAL WITH 2020 REVISIONS.
- THE FACTORED BEARING RESISTANCE = 15.0 KSF AS PER AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS STRENGTH I LOAD COMBINATION. FACTORED BEARING RESISTANCE IS THE PRODUCT OF THE NOMINAL BEARING RESISTANCE AND A RESISTANCE FACTOR OF 0.45.

**CULVERT TYPICAL SECTION**

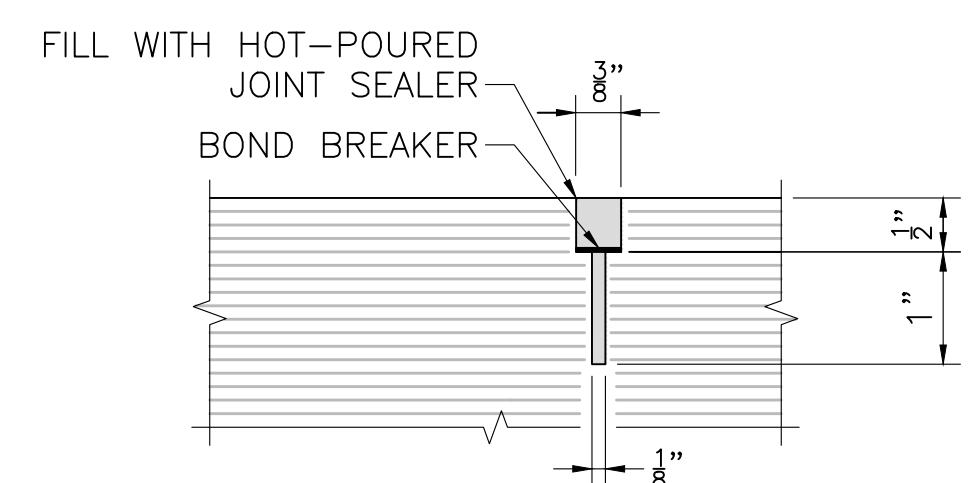
SCALE: 1/2" = 1'-0"

LUNENBURG FLAT HILL ROAD			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	NFA	6	8
PROJECT FILE NO.		N/A	
CULVERT DETAILS			



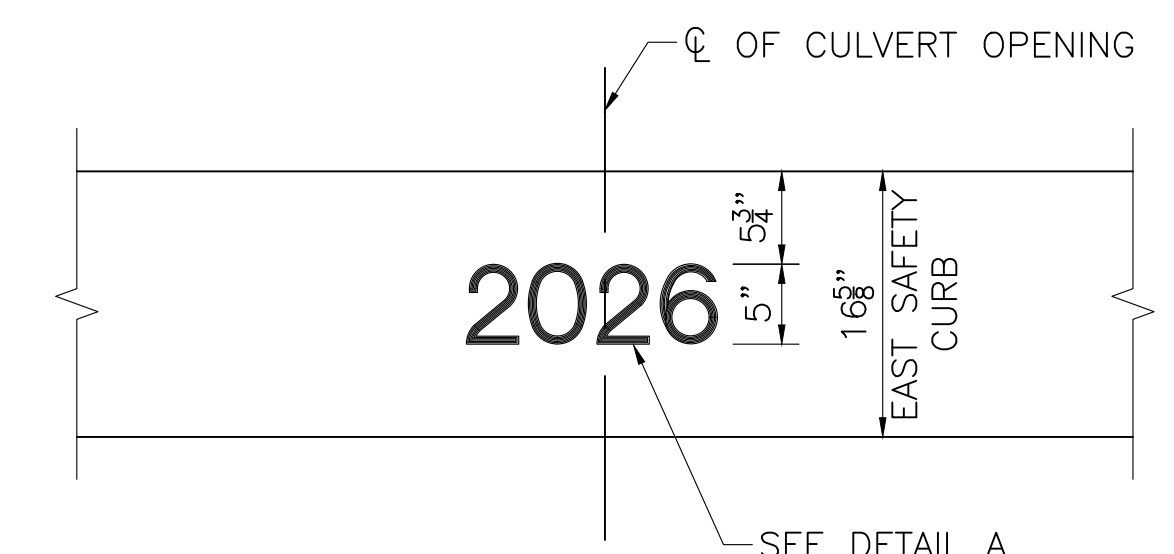
**LIMITS OF GRAVEL BORROW AND CRUSHED STONE**

NOT TO SCALE



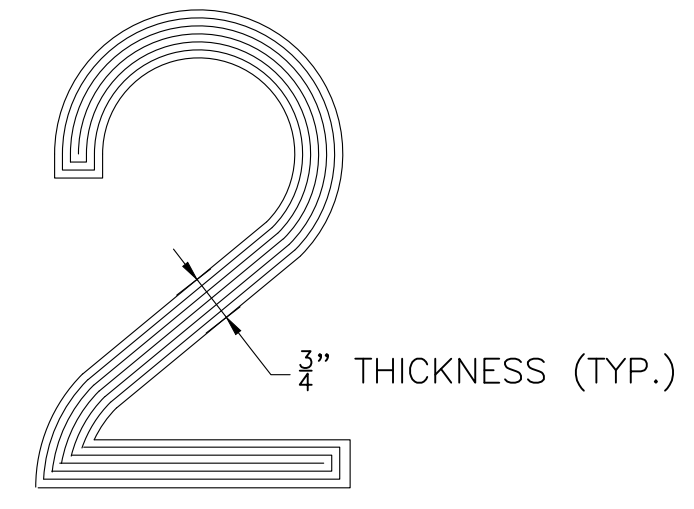
**PAVEMENT SAWCUT DETAIL**

NOT TO SCALE



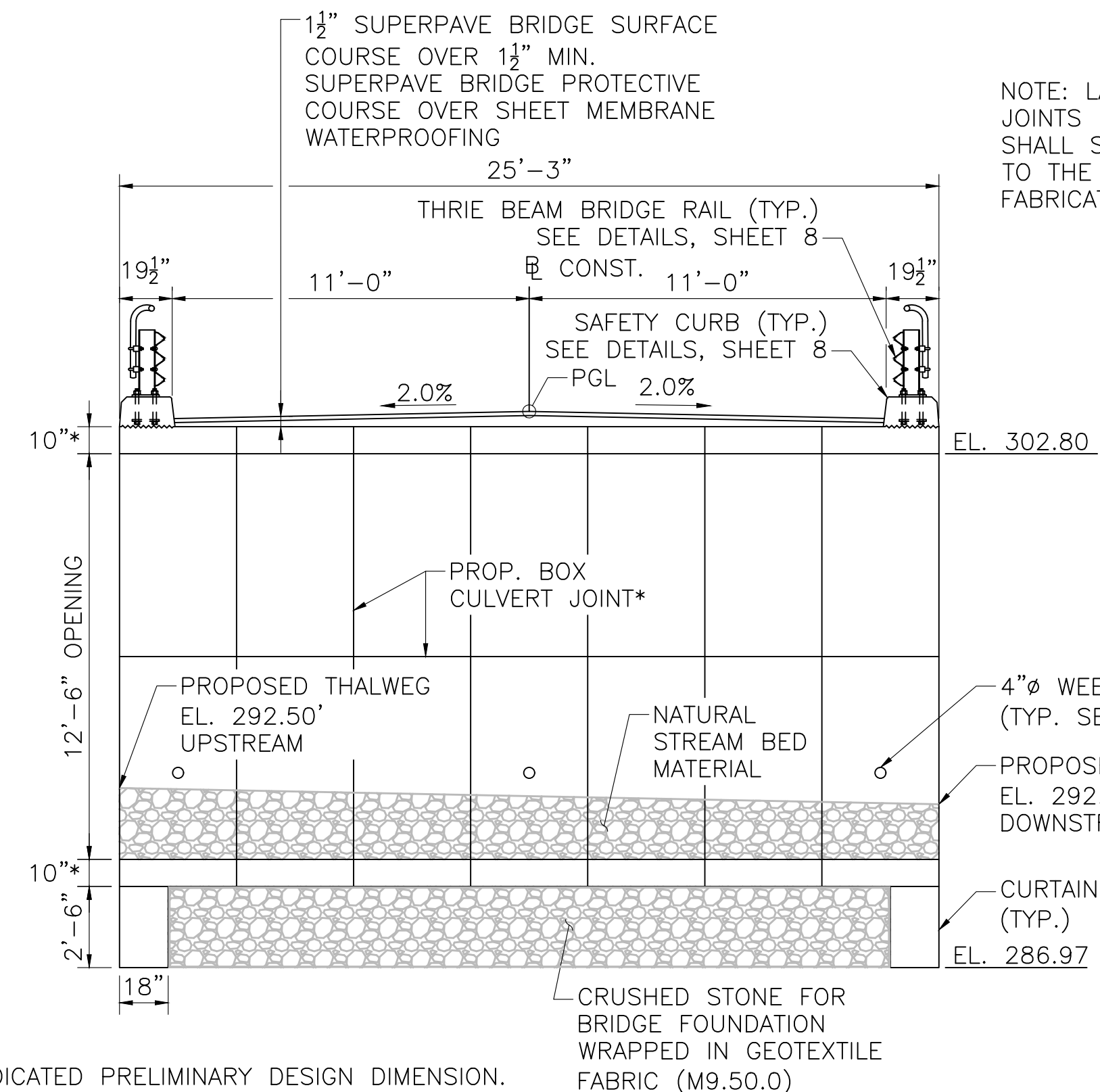
**DATE STAMP DETAIL**

SCALE: 1" = 1'-0"



**DETAIL A**

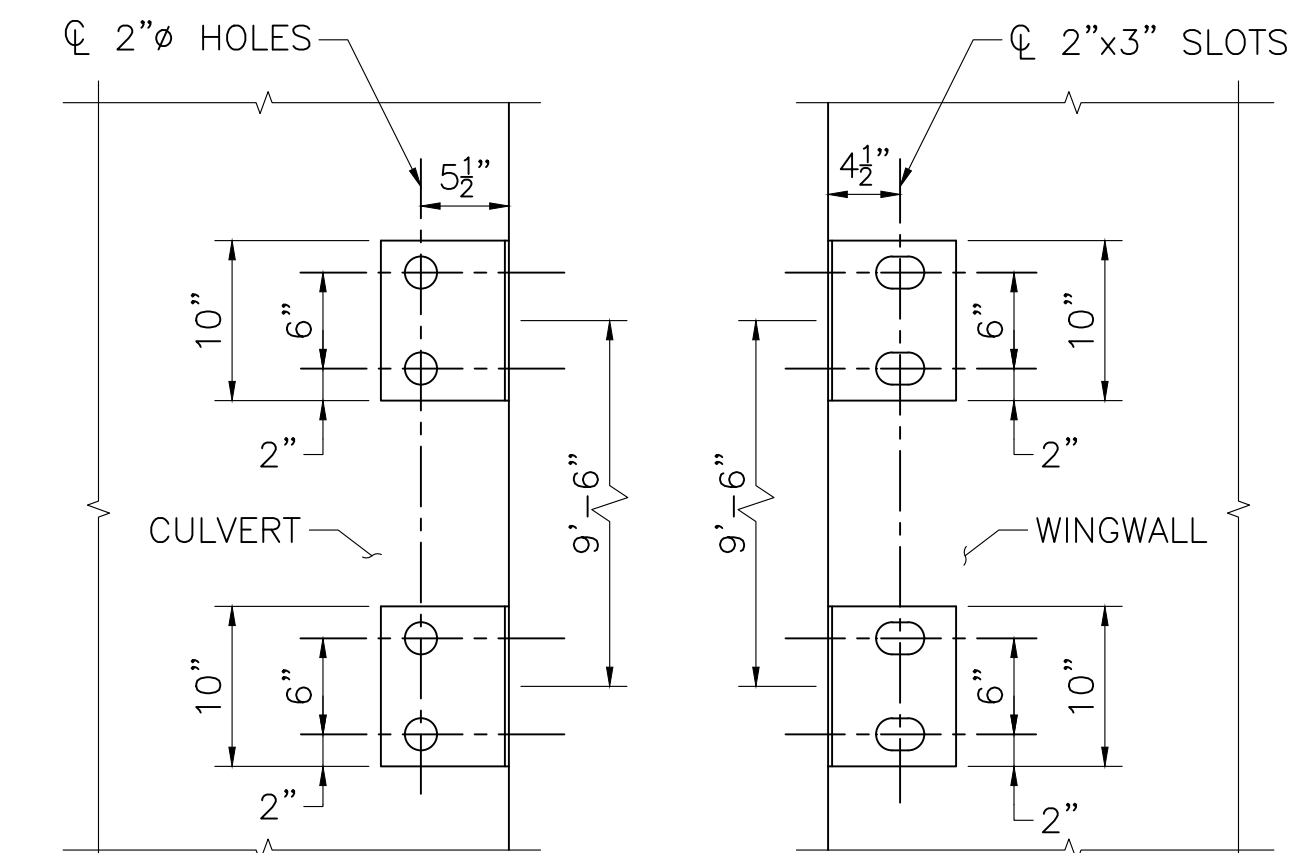
NOT TO SCALE



**LONGITUDINAL SECTION**

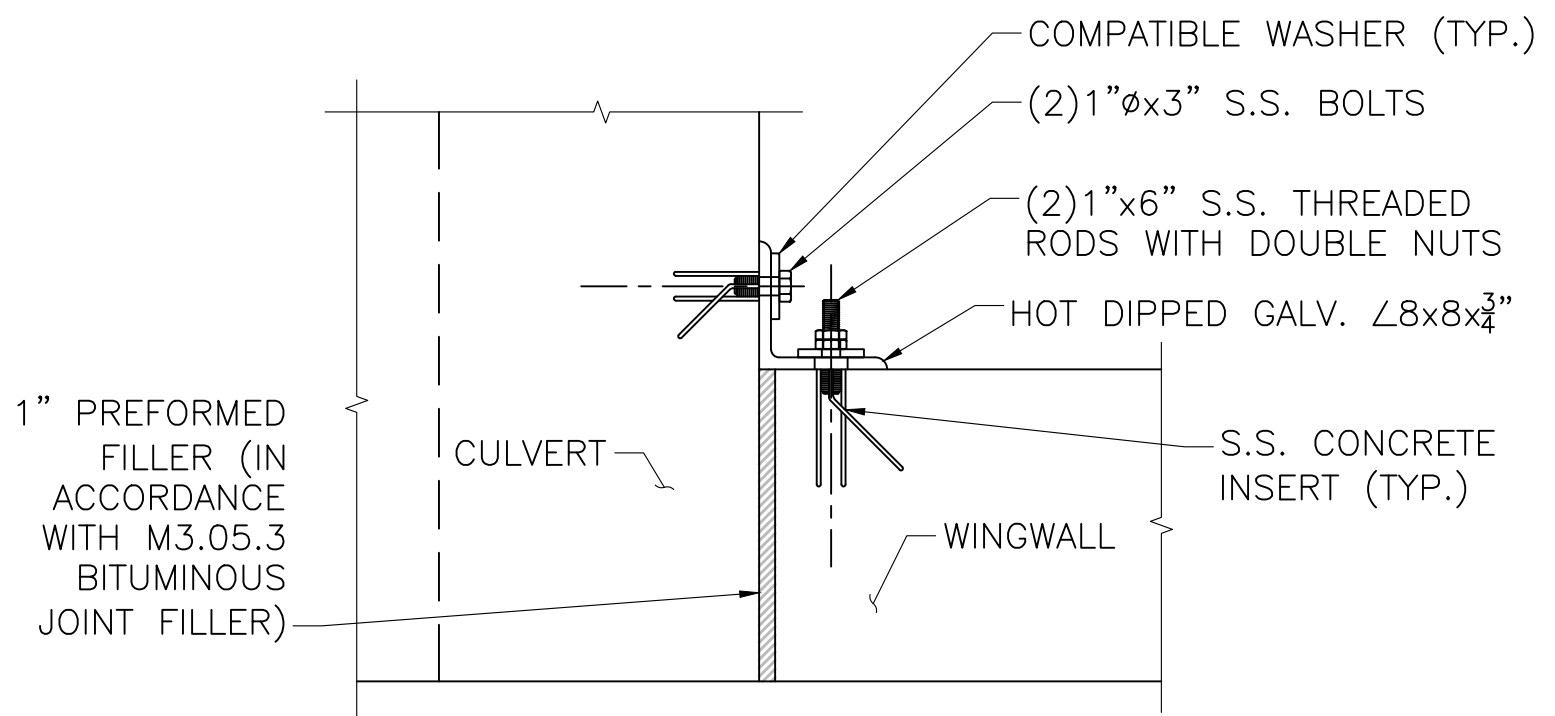
SCALE: 1/4" = 1'-0"

NOTE: LAYOUT OF PROPOSED BOX CULVERT JOINTS IS SCHEMATIC, THE CONTRACTOR SHALL SUBMIT JOINT LAYOUT FOR APPROVAL TO THE ENGINEER AS PART OF THE FABRICATION DRAWING PROCESS.



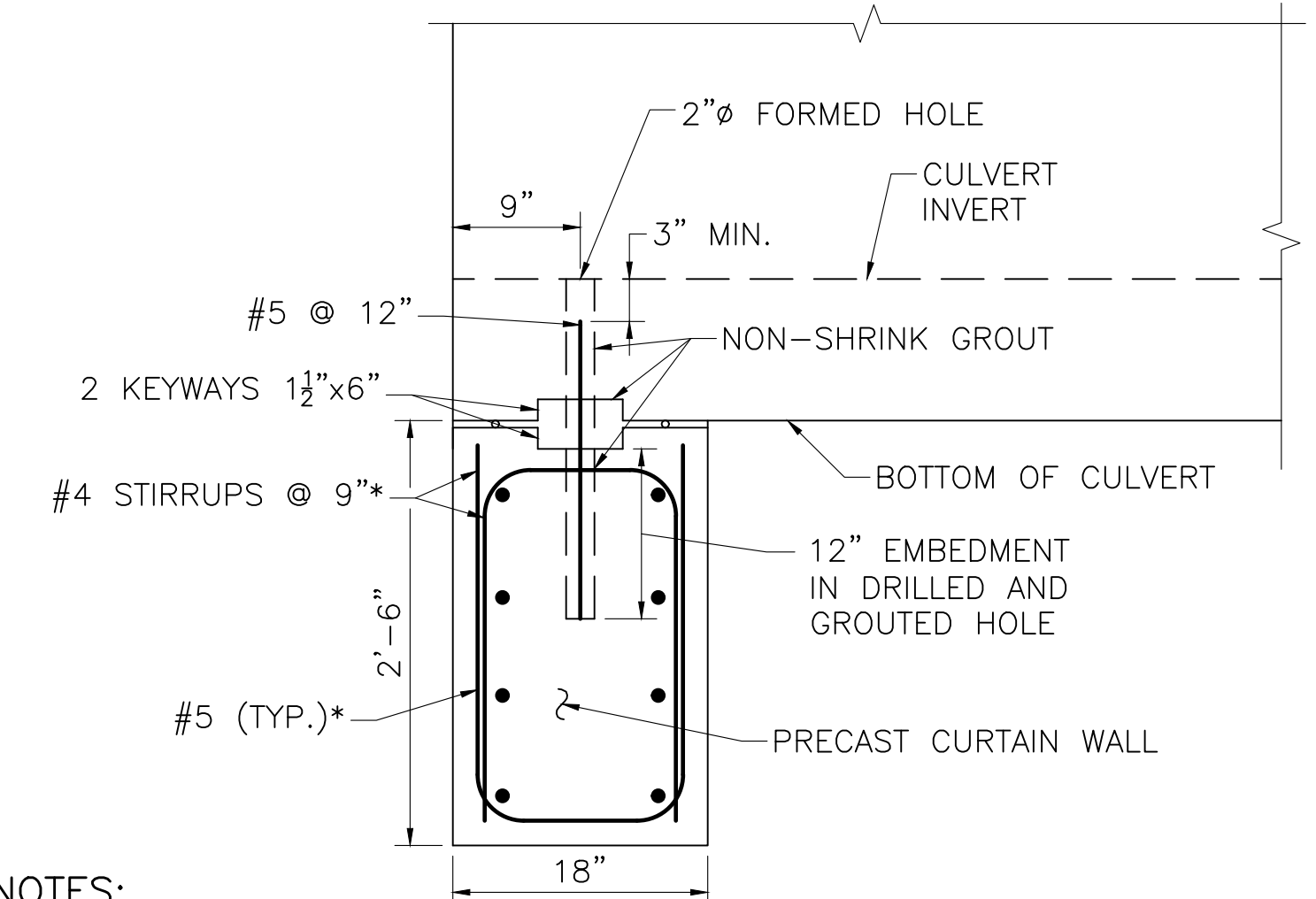
**ELEVATION AT CULVERT**

**ELEVATION AT WINGWALL**



**CULVERT TO WINGWALL CONNECTION DETAIL**

SCALE: 1" = 1'-0"



**NOTES:**

- \* INDICATES PRELIMINARY REINFORCING DESIGN. CONTRACTOR TO DETERMINE FINAL REINFORCING DESIGN.
- NON-SHRINK GROUT SHALL BE SELECTED FROM THE MASSDOT QUALIFIED CONSTRUCTION MATERIALS LIST AND APPROVED BY THE ENGINEER.

**CURTAIN WALL CONNECTION DETAIL**

SCALE: 1" = 1'-0"

JAN 9, 2026	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION
USE ONLY PRINTS OF LATEST DATE	

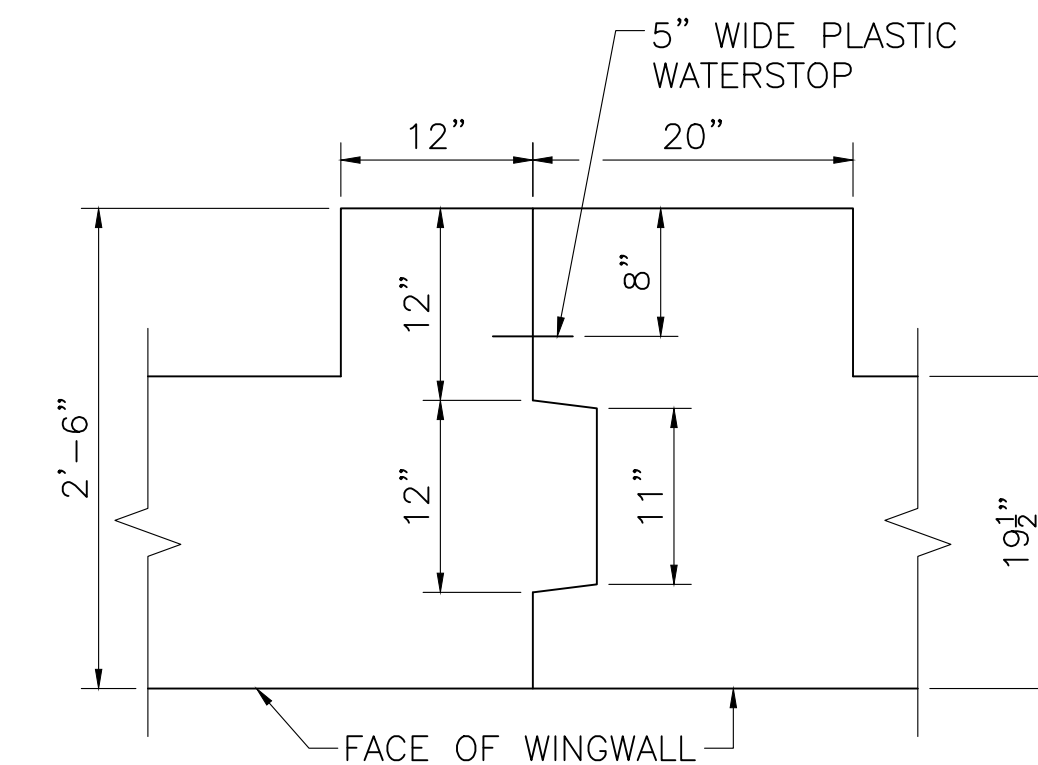
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15031.00\_BR(CULVERT DETAILS).DWG Plotted on 9-Jan-2026 1:56 PM

**LUNENBURG  
FLAT HILL ROAD**

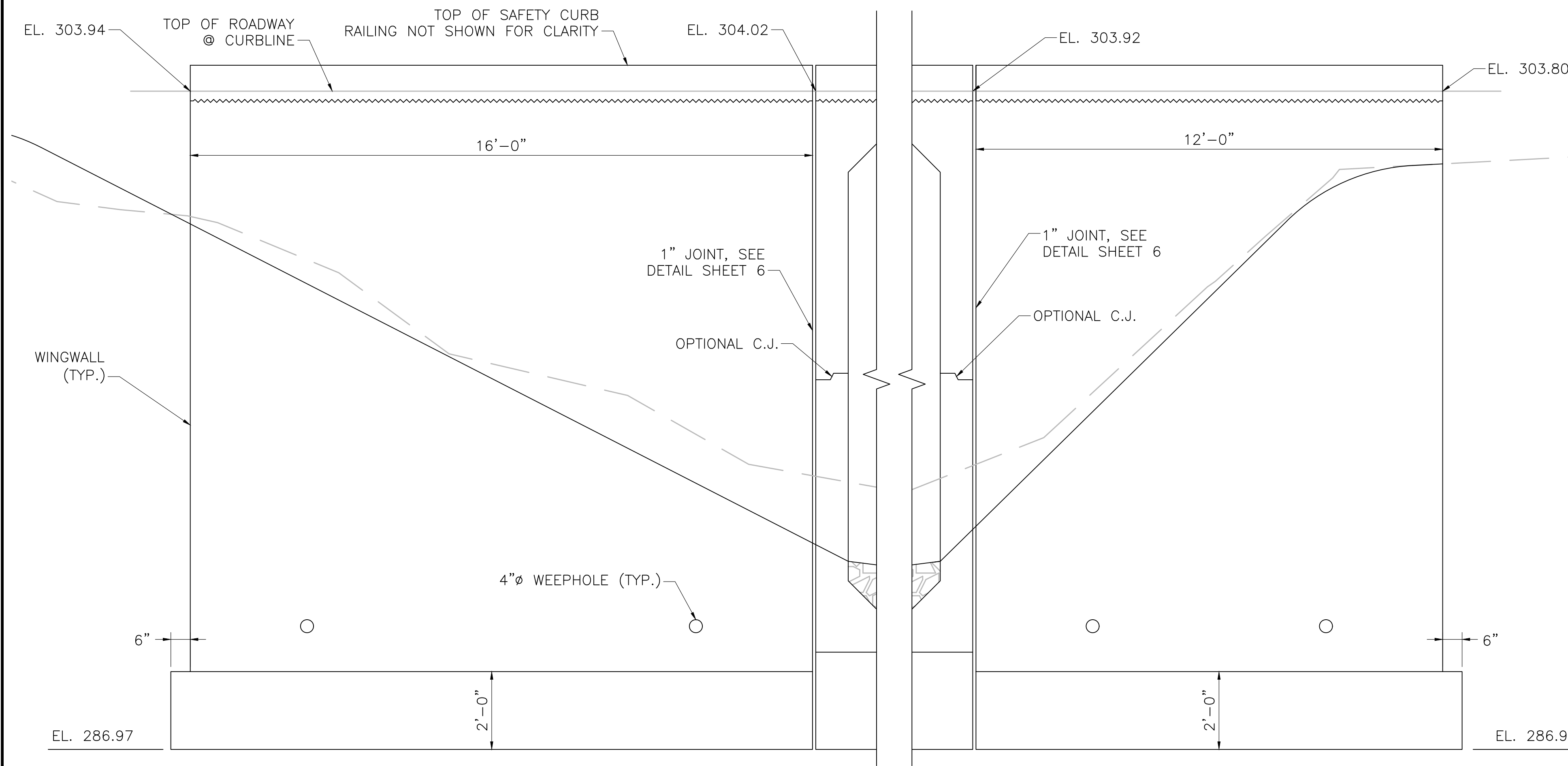
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	NFA	7	8
PROJECT FILE NO.		N/A	

**WINGWALL DETAILS**



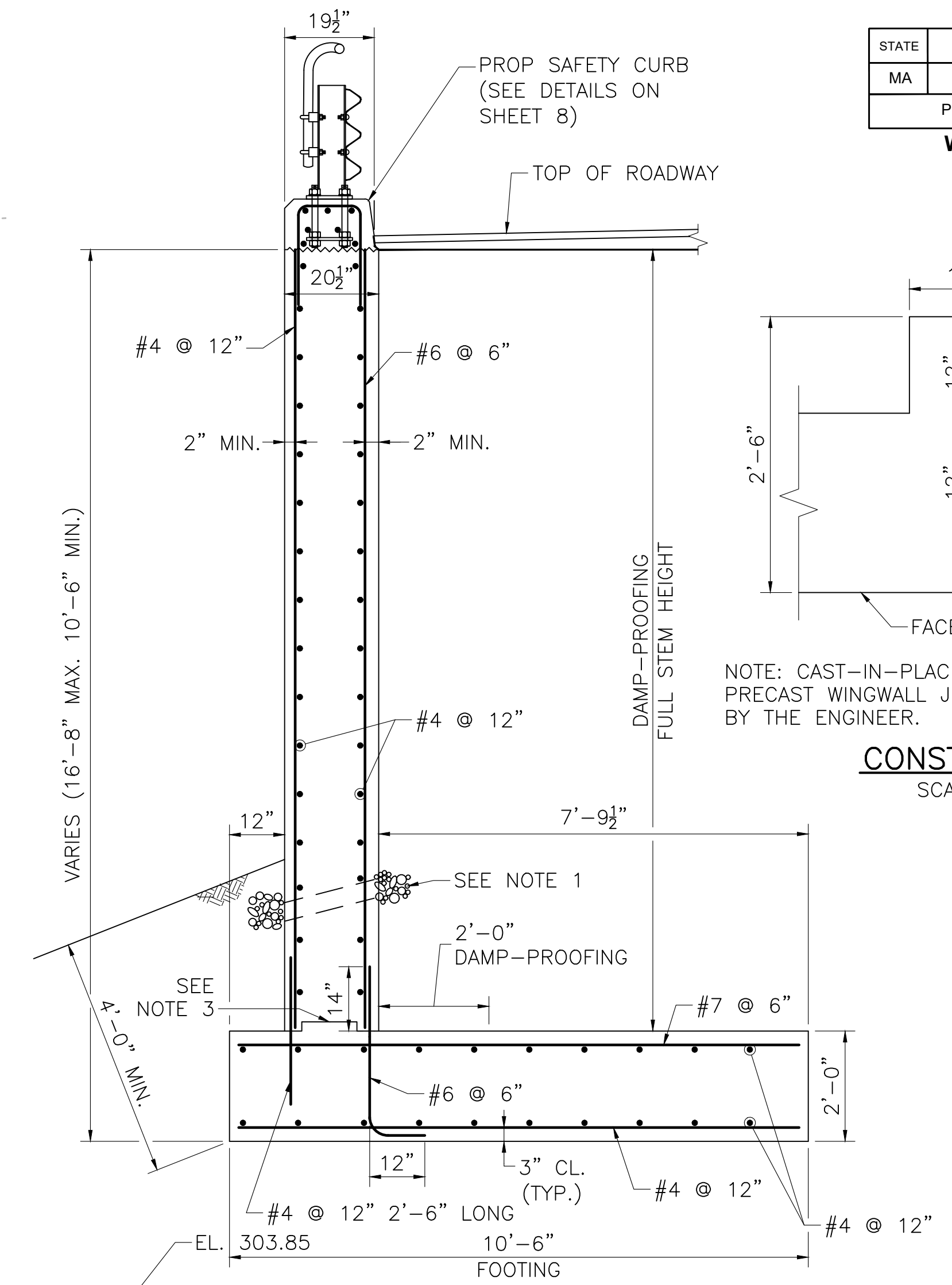
NOTE: CAST-IN-PLACE JOINT SHOWN. AN ALTERNATIVE PRECAST WINGWALL JOINT DETAIL SHALL BE APPROVED BY THE ENGINEER.

**CONST JOINT DETAIL**  
SCALE: 1" = 1'-0"



**NORTHEAST WINGWALL ELEVATION**  
SCALE: 1/2" = 1'-0"

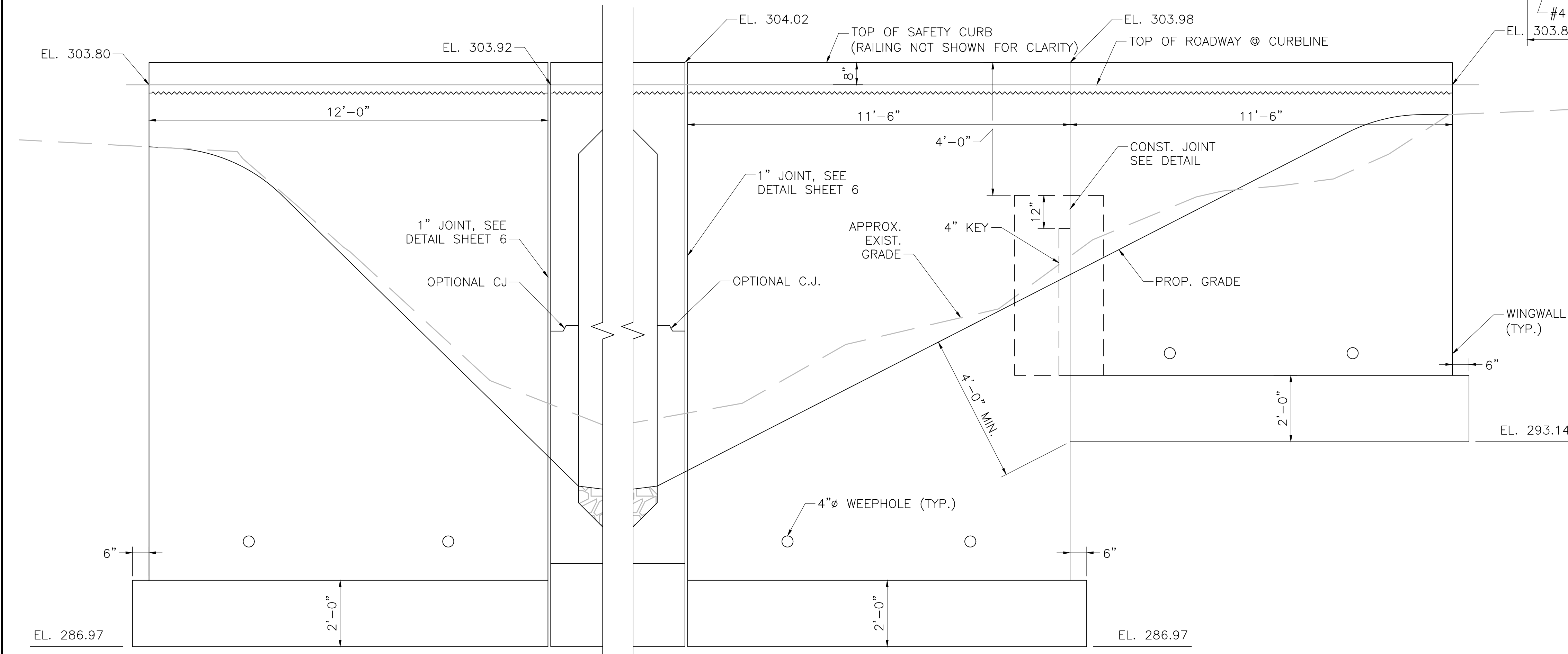
**NORTHWEST WINGWALL ELEVATION**  
SCALE: 1/2" = 1'-0"



NOTE: DETAIL IS SHOWN FOR A CAST-IN-PLACE WINGWALL. A PRECAST WINGWALL DESIGN OR ALTERNATE PROPRIETARY WALL SYSTEM DESIGN MAY BE USED WITH ENGINEER APPROVAL.

**TYPICAL WINGWALL SECTION**  
NOTES: SCALE: 1/2" = 1'-0"

- 4" Ø WEEP HOLES 10'-0" O.C. LOCATED 12" ABOVE THE HEEL OF THE FOOTING SLOPING 1" PER FOOT TOWARDS THE FRONT FACE. PROVIDE 1 CUBIC YARD OF CRUSHED STONE AT EACH END OF WEEP HOLE.
- THE FACTORED BEARING PRESSURE = 3.7 KSF AS PER AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS STRENGTH I LOAD COMBINATION.
- CONSTRUCTION JOINT WITH 12"x12"x2" SHEAR KEYS AT 3'-0" O.C.
- FACTORED BEARING RESISTANCE = 11.6 KSF. FACTORED BEARING RESISTANCE IS THE PRODUCT OF THE NOMINAL BEARING RESISTANCE AND A RESISTANCE FACTOR OF 0.45.
- CONTRACTOR MAY USE ALTERNATIVE PRECAST CONCRETE WALL SYSTEM WITH APPROVAL OF THE ENGINEER. ALTERNATE WALL SYSTEM SHALL BE DESIGNED AND STAMPED BY A MASSACHUSETTS PROFESSIONAL ENGINEER AND SUBMITTED TO THE ENGINEER FOR REVIEW.
- PRECAST FABRICATION TOLERANCES SHALL CONFORM TO THE LATEST EDITION OF THE PCI TOLERANCE MANUAL 135.



**SOUTHWEST WINGWALL ELEVATION**  
SCALE: 1/2" = 1'-0"

**SOUTHEAST WINGWALL ELEVATION**  
SCALE: 1/2" = 1'-0"

JAN 9, 2026	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION
USE ONLY PRINTS OF LATEST DATE	

I:\bbs\proj\Wat-TE\15031.00\Lunenburg-flat-hill-redevel\plans\15031.00\_BR(WALL).dwg

15031.00\_BR(WALL).DWG Plotted on 9-Jan-2026 1:50 PM

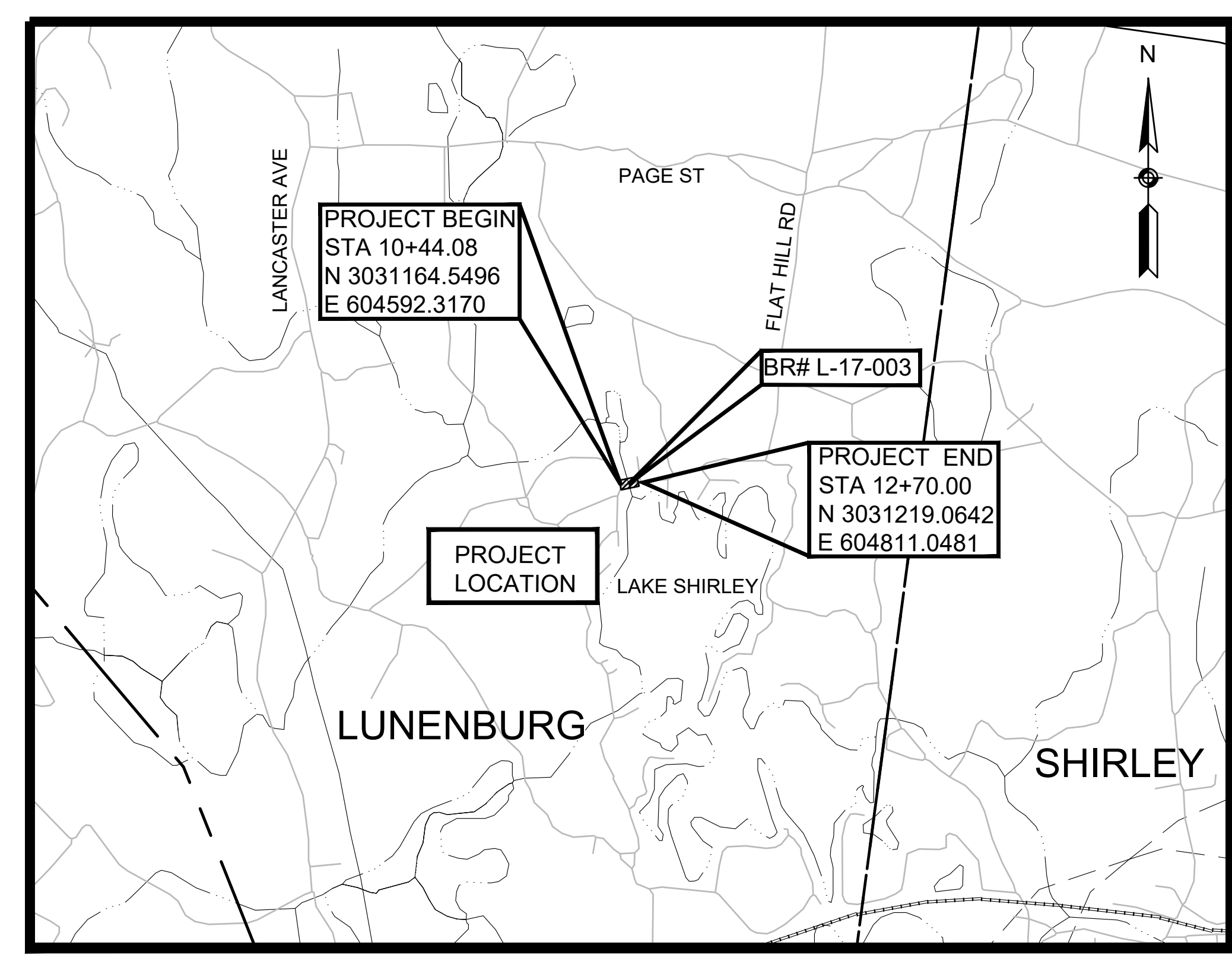


# **ATTACHMENT D**

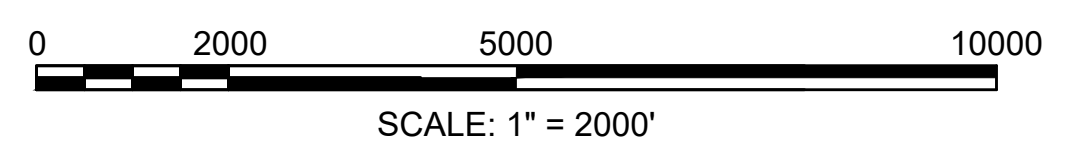
PLAN AND PROFILE OF  
**FLAT HILL ROAD**  
 (BRIDGE NO. L-17-003)  
 IN THE TOWN OF  
**LUNENBURG**  
 WORCESTER COUNTY

THESE PLANS ARE SUPPLEMENTED BY THE OCTOBER 2017 CONSTRUCTION STANDARD DETAILS, THE 2015 OVERHEAD SIGNAL STRUCTURE AND FOUNDATION STANDARD DRAWINGS, MASSDOT TRAFFIC MANAGEMENT PLANS AND DETAIL DRAWINGS, THE 1990 STANDARD DRAWINGS FOR SIGNS AND SUPPORTS, THE 1968 STANDARD DRAWINGS FOR TRAFFIC SIGNALS AND HIGHWAY LIGHTING, AND THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK.

INDEX	
SHEET NO.	DESCRIPTION
1	TITLE SHEET & INDEX
2	LEGEND & ABBREVIATIONS
3	TYPICAL SECTIONS & PAVEMENT NOTES
4	CONSTRUCTION PLAN OVER PROFILE
5	ALIGNMENT & GRADING PLANS
6-8	TEMPORARY TRAFFIC CONTROL PLANS
9	CONSTRUCTION DETAILS
10	CROSS SECTIONS



DESIGN DESIGNATION (FLAT HILL ROAD)	
DESIGN SPEED	30 MPH
FUNCTIONAL CLASSIFICATION	LOCAL



LENGTH OF PROJECT = 225.92 FEET = 0.043 MILES

DATE	DESCRIPTION	REV #

ENGINEER

DATE

**Vanasse Hangen Brustlin, Inc.**  
 101 Walnut St., PO Box 9151  
 Watertown, MA 02472  
 617.924.1770 FAX 617.924.2286

DESIGNED BY CTN	APPROVED BY SHK	SHEET OF 1 10
DRAWN BY CTN	DFTG CHECKED BY JDT	WHB CAD FILE NAME 15031.00_COV.DWG
CHECKED BY JDT	DATE FEBRUARY 14, 2024	JOB NO. 15031.00

**LUNENBURG  
FLAT HILL ROAD  
LEGEND & ABBREVIATIONS  
SHEET 2 OF 10**

**GENERAL SYMBOLS**

EXISTING	PROPOSED	DESCRIPTION
		JERSEY BARRIER
		CATCH BASIN
		CATCH BASIN CURB INLET
		FLAG POLE
		GAS PUMP
		MAIL BOX
		POST SQUARE
		POST CIRCULAR
		WELL
		ELECTRIC HANDHOLE
		FENCE GATE POST
		GAS GATE
		BORING HOLE
		MONITORING WELL
		TEST PIT
		HYDRANT
		LIGHT POLE
		COUNTY BOUND
		GPS POINT
		CABLE MANHOLE
		DRAINAGE MANHOLE
		ELECTRIC MANHOLE
		GAS MANHOLE
		MISC MANHOLE
		SEWER MANHOLE
		TELEPHONE MANHOLE
		WATER MANHOLE
		MASSACHUSETTS HIGHWAY BOUND
		MONUMENT
		STONE BOUND
		TOWN OR CITY BOUND
		TRAVERSE OR TRIANGULATION STATION
		TROLLEY POLE OR GUY POLE
		UTILITY POLE W/ FIREBOX
		UTILITY POLE WITH DOUBLE LIGHT
		UTILITY POLE W/ 1 LIGHT
		UTILITY POLE
		BUSH
		TREE
		STUMP
		SWAMP / MARSH
		WATER GATE
		PARKING METER
		OVERHEAD CABLE/WIRE
		CURBING
		CONTOURS (ON-THE-GROUND SURVEY DATA)
		CONTOURS (PHOTOGRAMMETRIC DATA)
		UNDERGROUND DRAIN PIPE (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND ELECTRIC DUCT (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND GAS MAIN (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND SEWER MAIN (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND TELEPHONE DUCT (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND WATER MAIN (DOUBLE LINE 24 INCH AND OVER)
		BALANCED STONE WALL
		GUARD RAIL - STEEL POSTS
		GUARD RAIL - WOOD POSTS
		GUARD RAIL - DOUBLE FACE - STEEL POSTS
		GUARD RAIL - DOUBLE FACE - WOOD POSTS
		CHAIN LINK OR METAL FENCE
		WOOD FENCE
		SEDIMENT CONTROL BARRIER
		TREE LINE
		SAWCUT LINE
		TOP OR BOTTOM OF SLOPE
		LIMIT OF EDGE OF PAVEMENT OR COLD PLANE AND OVERLAY
		BANK OF RIVER OR STREAM
		BORDER OF WETLAND
		100 FT WETLAND BUFFER
		200 FT RIVERFRONT BUFFER
		STATE HIGHWAY LAYOUT
		TOWN OR CITY LAYOUT
		COUNTY LAYOUT
		RAILROAD SIDELINE
		TOWN OR CITY BOUNDARY LINE
		PROPERTY LINE OR APPROXIMATE PROPERTY LINE
		EASEMENT

**PAVEMENT MARKINGS SYMBOLS**

EXISTING	PROPOSED	DESCRIPTION
		PAVEMENT ARROW - WHITE
		LEGEND "ONLY" - WHITE
		STOP LINE
		CROSSWALK
		SOLID WHITE EDGE LINE
		SOLID WHITE LANE LINE
		SOLID YELLOW EDGE LINE
		BROKEN WHITE LINE, 10' LINE W/30' SPACING
		BROKEN YELLOW LINE, 10' LINE W/30' SPACING
		DOTTED WHITE LINE, 2' LINE W/6' SPACING
		DOTTED YELLOW LINE, 2' LINE W/6' SPACING
		LONG DASHED WHITE LINE EXTENSION, 3' LINE W/9' SPACING
		DOUBLE YELLOW CENTER LINE
		SOLID YELLOW CENTER LINE
		SOLID WHITE CHANNELIZATION LINE
		SOLID YELLOW CHANNELIZATION LINE

**ABBREVIATIONS**

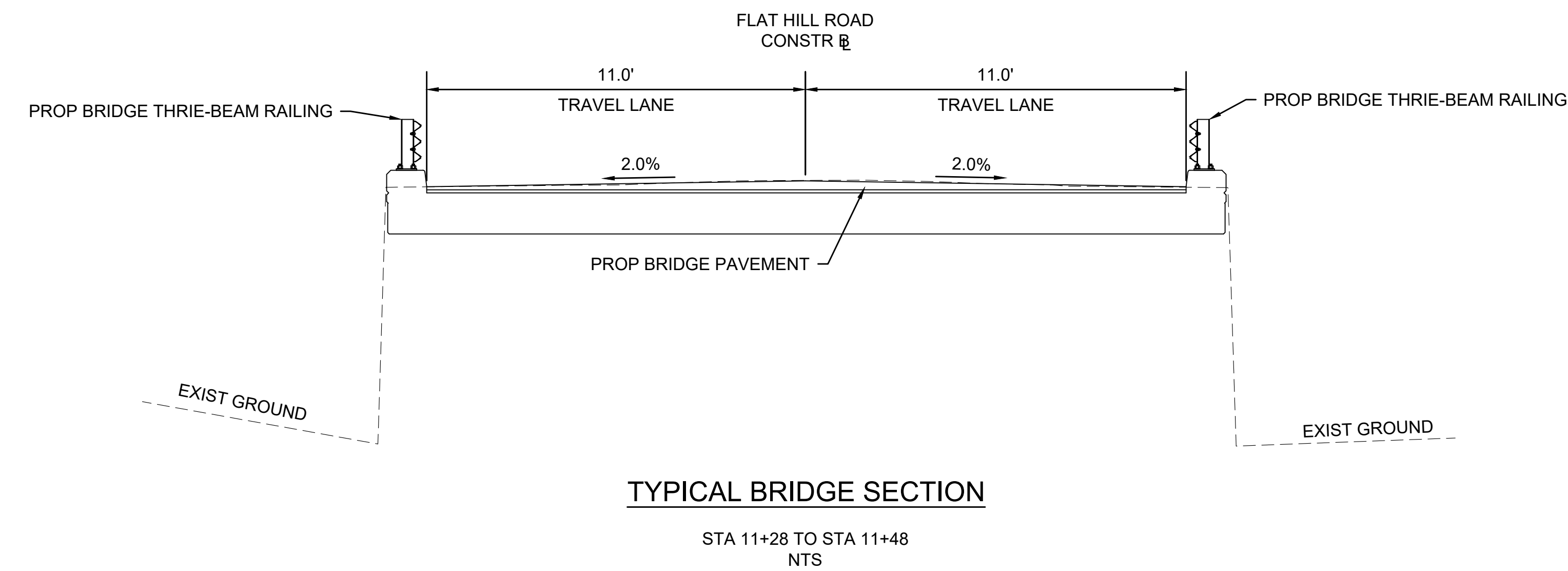
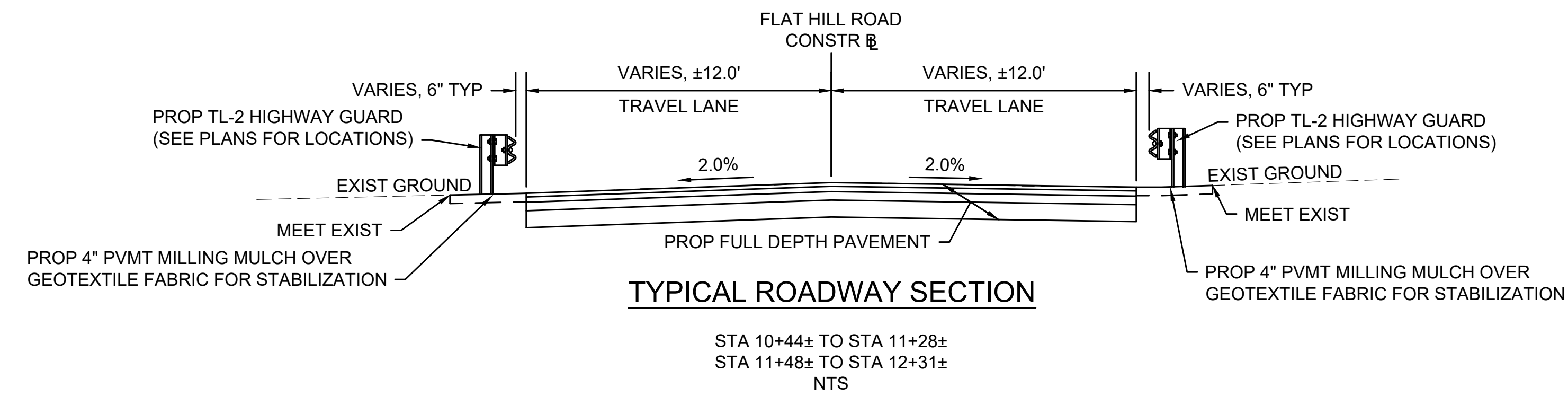
GENERAL	
AADT	ANNUAL AVERAGE DAILY TRAFFIC
ABAN	ABANDON
ADJ	ADJUST
APPROX.	APPROXIMATE
A.C.	ASPHALT CONCRETE
ACCM PIPE	ASPHALT COATED CORRUGATED METAL PIPE
BIT.	BITUMINOUS
BC	BOTTOM OF CURB
BD.	BOUND
BL	BASELINE
BLDG	BUILDING
BM	BENCHMARK
BO	BY OTHERS
BOS	BOTTOM OF SLOPE
BR.	BRIDGE
CB	CATCH BASIN
CBCI	CATCH BASIN WITH CURB INLET
CC	CEMENT CONCRETE
CCM	CEMENT CONCRETE MASONRY
CEM	CEMENT
CI	CURB INLET
CIP	CAST IRON PIPE
CLF	CHAIN LINK FENCE
CL	CENTERLINE
CMP	CORRUGATED METAL PIPE
CSP	CORRUGATED STEEL PIPE
CO.	COUNTY
CONC	CONCRETE
CONT	CONTINUOUS
CONST	CONSTRUCTION
CR GR	CROWN GRADE
DHV	DESIGN HOURLY VOLUME
DI	DROP INLET
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DW	STEADY DON'T WALK - PORTLAND ORANGE
DWY	DRIVEWAY
ELEV (or EL.)	ELEVATION
EMB	EMBANKMENT
EOP	EDGE OF PAVEMENT
EXIST (or EX)	EXISTING
EXC	EXCAVATION
F&C	FRAME AND COVER
F&G	FRAME AND GRATE
FDN.	FOUNDATION
FLDSTN	FIELDSTONE
GAR	GARAGE
GD	GROUND
GG	GAS GATE
GI	GUTTER INLET
GIP	GALVANIZED IRON PIPE
GRAN	GRANITE
GRAV	GRAVEL
GRD	GUARD
HDW	HEADWALL
HMA	HOT MIX ASPHALT
HOR	HORIZONTAL
HYD	HYDRANT
INV	INVERT
JCT	JUNCTION
L	LENGTH OF CURVE
LB	LEACH BASIN

**ABBREVIATIONS (cont.)**

GENERAL	
LP	LIGHT POLE
LT	LEFT
MAX	MAXIMUM
MB	MAILBOX
MH	MANHOLE
MHB	MASSACHUSETTS HIGHWAY BOUND
MIN	MINIMUM
NIC	NOT IN CONTRACT
NO.	NUMBER
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
P.G.L.	PROFILE GRADE LINE
PI	POINT OF INTERSECTION
POC	POINT ON CURVE
POT	POINT ON TANGENT
PRC	POINT OF REVERSE CURVATURE
PROJ	PROJECT
PROP	PROPOSED
PSB	PLANTABLE SOIL BORROW
PT	POINT OF TANGENCY
PVC	POINT OF VERTICAL CURVATURE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY
PVMT	PAVEMENT
PWW	PAVED WATER WAY
R	RADIUS OF CURVATURE
R&D	REMOVE AND DISPOSE
RCP	REINFORCED CONCRETE PIPE
RD	ROAD
RDWY	ROADWAY
REM	REMOVE
RET	RETAIN
RET WALL	RETAINING WALL
ROW	RIGHT OF WAY
RR	RAILROAD
R&R	REMOVE AND RESET
R&S	REMOVE AND STACK
RT	RIGHT
SB	STONE BOUND
SHLD	SHOULDER
SMH	SEWER MANHOLE
ST	STREET
STA	STATION
SSD	STOPPING SIGHT DISTANCE
SHLO	STATE HIGHWAY LAYOUT LINE
SW	SIDEWALK
T	TANGENT DISTANCE OF CURVE/TRUCK %
TAN	TANGENT
TEMP	TEMPORARY
TC	TOP OF CURB
TOS	TOP OF SLOPE
TYP	TYPICAL
UP	UTILITY POLE
VAR	VARIES
VERT	VERTICAL
VC	VERTICAL CURVE
WCR	WHEEL CHAIR RAMP
WG	WATER GATE
WIP	WROUGHT IRON PIPE
WM	WATER METER/WATER MAIN
X-SECT	CROSS SECTION

**GENERAL NOTES:**

- EXISTING CONDITIONS AND TOPOGRAPHICAL INFORMATION FROM AN ACTUAL FIELD SURVEY CONDUCTED BY VHB BETWEEN OCTOBER AND NOVEMBER, 2020.
- THE HORIZONTAL CONTROL IS BASED ON THE MASSACHUSETTS MAINLAND STATE PLANE COORDINATE SYSTEM AND THE NATIONAL GEODETIC SURVEY (NAD83). ALL ELEVATION IS US FEET, REFERENCED TO THE NORTH AMERICA VERTICAL DATUM OF 1988 (NAVD88).
- THE CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND GRADES IN THE FIELD BEFORE COMMENCING WORK AND PROMPTLY NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
- THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
- THE CONTRACTOR SHALL VERIFY BY TEST PIT, THE LOCATIONS OF EXISTING UTILITIES WHICH MAY CONFLICT WITH PROPOSED CONSTRUCTION ACTIVITIES. ANY FIELD ADJUSTMENTS REQUIRED WILL BE MADE AS APPROVED OR DIRECTED BY THE ENGINEER.
- WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED TO THE ENGINEER FOR RESOLUTION OF THE CONFLICT.
- IF THE ALTERATION OF GAS, ELECTRIC, TELEPHONE, OR PRIVATE UTILITY IS REQUIRED, THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR THE WORK TO BE PERFORMED BY THE UTILITY COMPANIES.
- EXISTING UTILITY POLES WILL BE RELOCATED BY OTHERS IF REQUIRED.
- TREES AND SHRUBS WITHIN THE LIMITS OF GRADING SHALL BE REMOVED ONLY UPON APPROVAL OF THE ENGINEER.
- AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT NO EXPENSE TO THE OWNER.
- THE TERM "PROPOSED" (PROP) MEANS WORK TO BE CONSTRUCTED USING NEW MATERIALS OR, WHERE APPLICABLE, RE-USING EXISTING MATERIALS IDENTIFIED AS "REMOVE AND RESET" (R&R).
- JOINTS BETWEEN NEW ASPHALT CONCRETE ROADWAY PAVEMENT AND SAWCUT EXISTING PAVEMENT SHALL BE SEALED WITH HMA JOINT SEALER AND BACKSANDDED.
- EXISTING SIGNS WITHIN THE PROJECT LIMITS SHALL BE RETAINED UNLESS INDICATED OTHERWISE ON THE DRAWINGS.
- EXISTING STATE, COUNTY, CITY, AND TOWN LOCATION LINES AND PRIVATE PROPERTY LINES HAVE BEEN ESTABLISHED FROM AVAILABLE INFORMATION AND THEIR EXACT LOCATIONS ARE NOT GUARANTEED.
- DISPOSAL OF ALL SURPLUS MATERIAL SHALL BE AS APPROVED BY THE ENGINEER AND OWNER.



**PAVEMENT NOTES**

PROPOSED FULL DEPTH PAVEMENT

- SURFACE: 1.75" SUPERPAVE SURFACE COURSE - 12.5 POLYMER (SSC - 12.5 - P) OVER
- INTERMEDIATE: 2.5" SUPERPAVE INTERMEDIATE COURSE - 12.5 (SIC - 12.5) OVER
- BASE: 3.5" SUPERPAVE BASE COURSE - 25.0 (SBC - 25.0)
- ++ SUBBASE: 4" DENSE GRADED CRUSHED STONE FOR SUB-BASE OVER  
 8" GRAVEL BORROW, TYPE B

PROPOSED BRIDGE PAVEMENT

- SURFACE: 1.75" SUPERPAVE SURFACE COURSE - 12.5 POLYMER (SSC - 12.5 - P) OVER
- INTERMEDIATE: VARIABLE DEPTH (1.25" (MIN) SUPERPAVE BRIDGE PROTECTIVE COURSE (SPC - B - 12.5) OVER SHEET MEMBRANE WATERPROOFING (SEE BRIDGE PLANS)

++ WHERE EXISTING GRAVEL IS FOUND TO BE SUITABLE, THE EXISTING GRAVEL MAY BE USED IN PROPOSED SUBBASE, AFTER APPROVAL BY THE ENGINEER.

GENERAL NOTES:

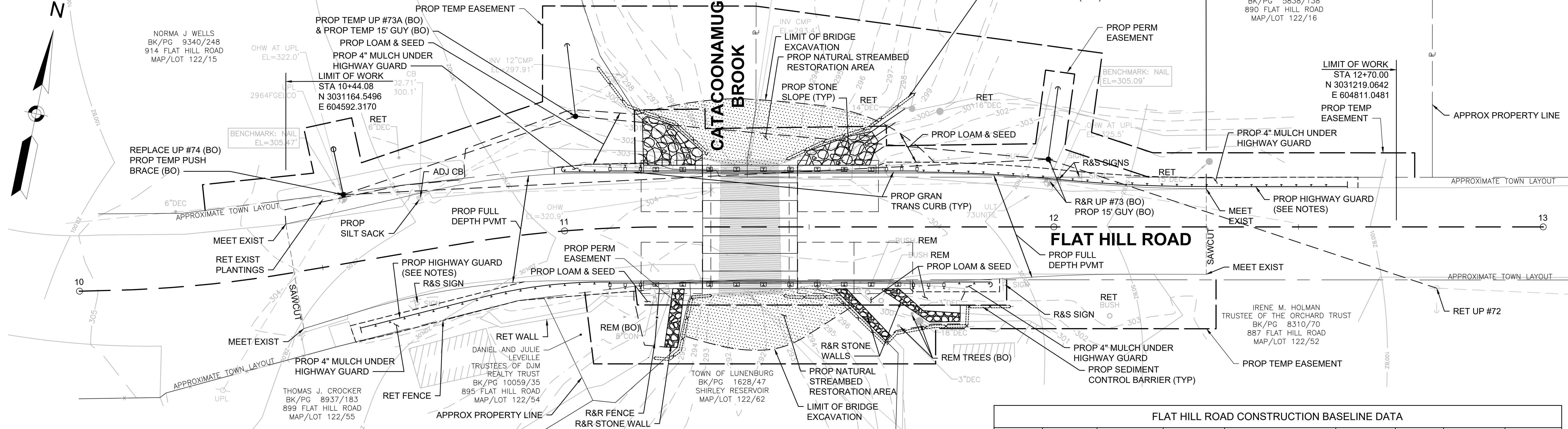
1. ALL SUPERPAVE HOT MIX ASPHALT SHALL BE PRODUCED WITH A WARM MIX ASPHALT TECHNOLOGY. SUPERPAVE SURFACE COURSE SHALL BE POLYMER MODIFIED ASPHALT.
2. ALL HOT MIX ASPHALT PAVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 450 QUALITY ASSURANCE FOR HMA AND SHALL BE PRODUCED IN ACCORDANCE WITH SECTION 455 SUPERPAVE HMA SPECIFICATIONS.
3. ASPHALT EMULSION FOR TACK COAT (ITEM 452.) SHALL BE SPRAY APPLIED FOR TRIPLE OVERLAP COVERAGE AT 0.08 GALLONS PER SQUARE YARD OVER MILLED SURFACES AND 0.07 GALLONS PER SQUARE YARD OVER SMOOTH SURFACES.
4. HMA JOINT SEALANT (ITEM 453.) SHALL BE APPLIED IN SURFACE COURSE AT ALL VERTICAL COLD JOINTS PRIOR TO HMA PAVING.

**HIGHWAY GUARD DETAILS**

PROP TL-2 FLARED END TREATMENT STA 10+56 RT TO STA 10+81 RT  
 PROP TL-2 HIGHWAY GUARD (DEEP POST) STA 10+81 RT TO STA 11+09 RT  
 PROP THRIE-BEAM TRANSITION PANEL (400.1.3) STA 11+09 RT TO STA 11+15 RT  
 PROP BRIDGE THRIE-BEAM RAILING STA 11+15 RT TO 11+71 RT (SEE BRIDGE PLANS)  
 PROP THRIE-BEAM TRANSITION PANEL (400.1.3) STA 11+71 RT TO STA 11+77 RT  
 PROP TRAILING ANCHORAGE (400.4.1) STA 11+77 RT TO STA 11+87 RT

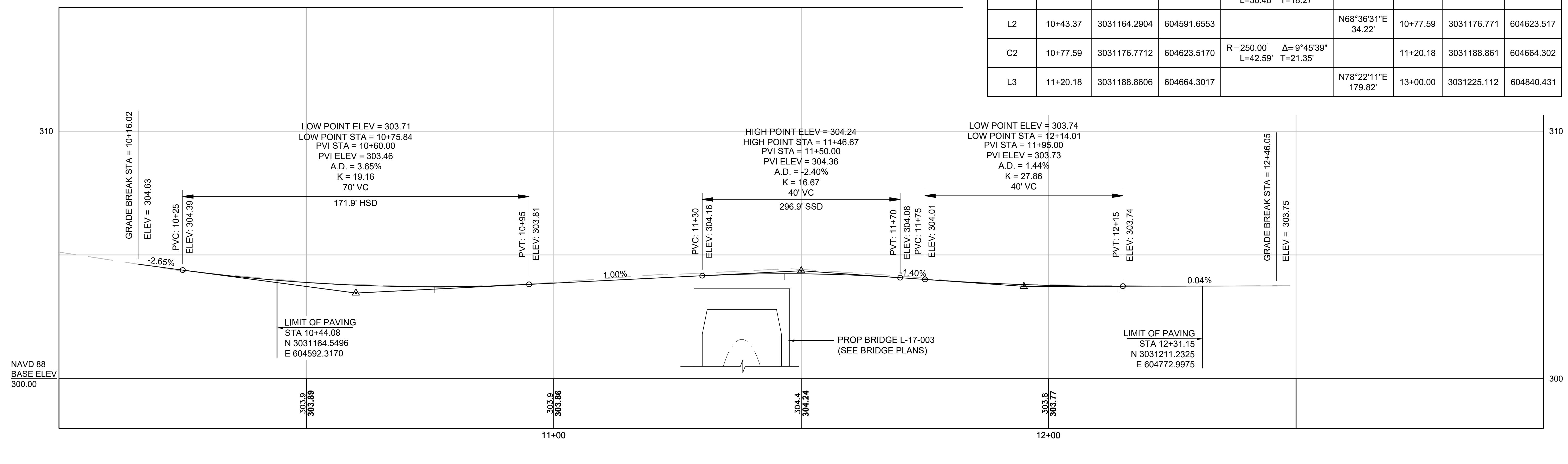
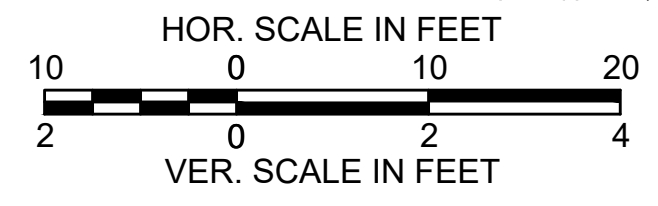
PROP TRAILING ANCHORAGE (400.4.1) STA 11+01 LT TO STA 11+10 LT  
 PROP THRIE-BEAM TRANSITION PANEL (400.1.3) STA 11+10 LT TO STA 11+16 LT  
 PROP BRIDGE THRIE-BEAM RAILING STA 11+16 LT TO 11+66 LT (SEE BRIDGE PLANS)  
 PROP THRIE-BEAM TRANSITION PANEL (400.1.3) STA 11+66 LT TO STA 11+72 LT  
 PROP TL-2 HIGHWAY GUARD (DEEP POST) STA 11+72 LT TO STA 12+35 LT  
 PROP TRAILING ANCHORAGE (400.4.1) STA 12+35 LT TO STA 12+60 LT

**LUNENBURG  
 FLAT HILL ROAD  
 CONSTRUCTION PLAN OVER PROFILE  
 SHEET 4 OF 10**



**FLAT HILL ROAD CONSTRUCTION BASELINE DATA**

NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L1	10+00.00	3031151.9523	604550.1272		N76°58'08"E 6.89'	10+06.89	3031153.506	604556.842
C1	10+06.89	3031153.5064	604556.8420	R -250.00' Δ=8°21'36" L=36.48' T=18.27'		10+43.37	3031164.290	604591.655
L2	10+43.37	3031164.2904	604591.6553		N68°36'31"E 34.22'	10+77.59	3031176.771	604623.517
C2	10+77.59	3031176.7712	604623.5170	R -250.00' Δ=9°45'39" L=42.59' T=21.35'		11+20.18	3031188.861	604664.302
L3	11+20.18	3031188.8606	604664.3017		N78°22'11"E 179.82'	13+00.00	3031225.112	604840.431



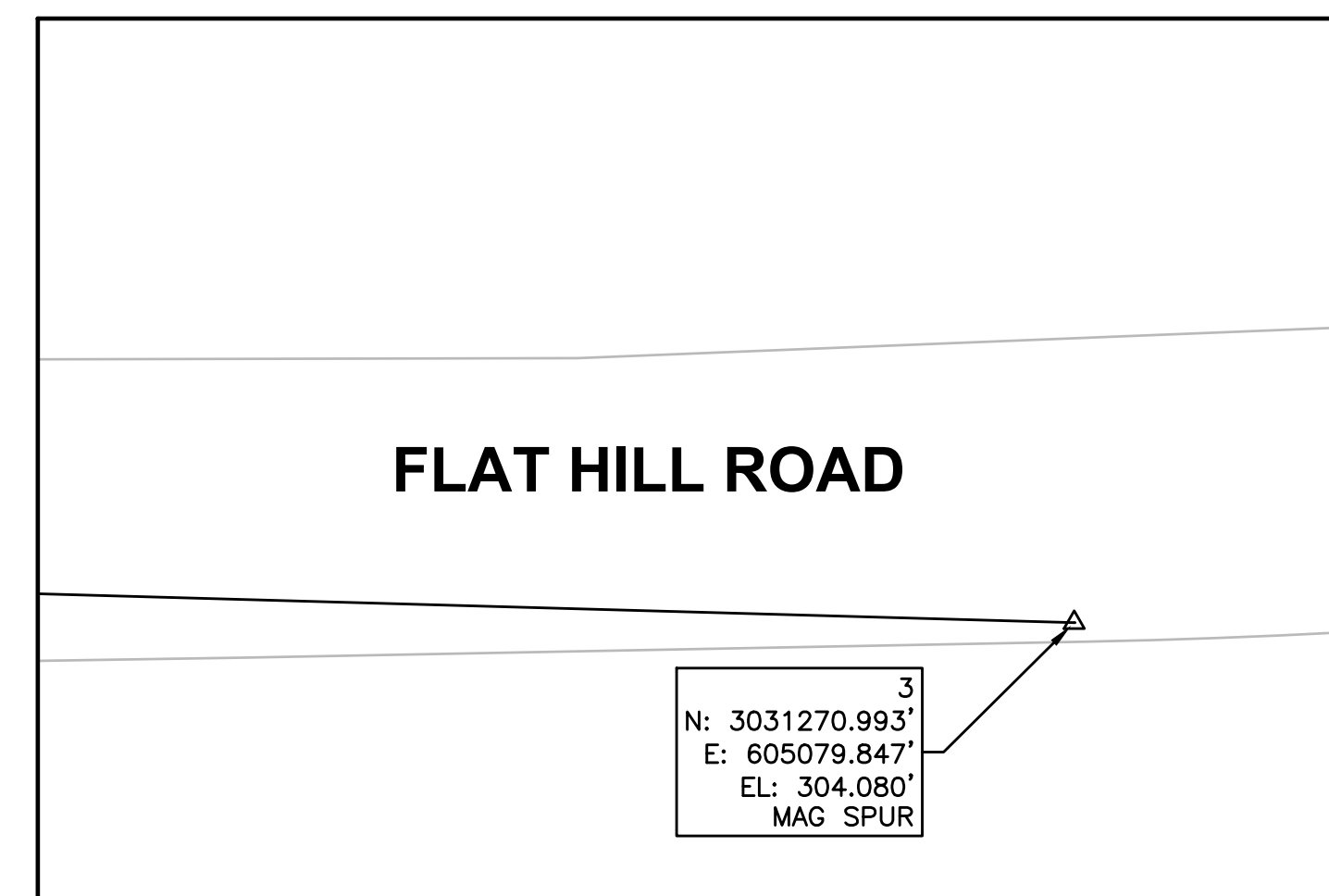
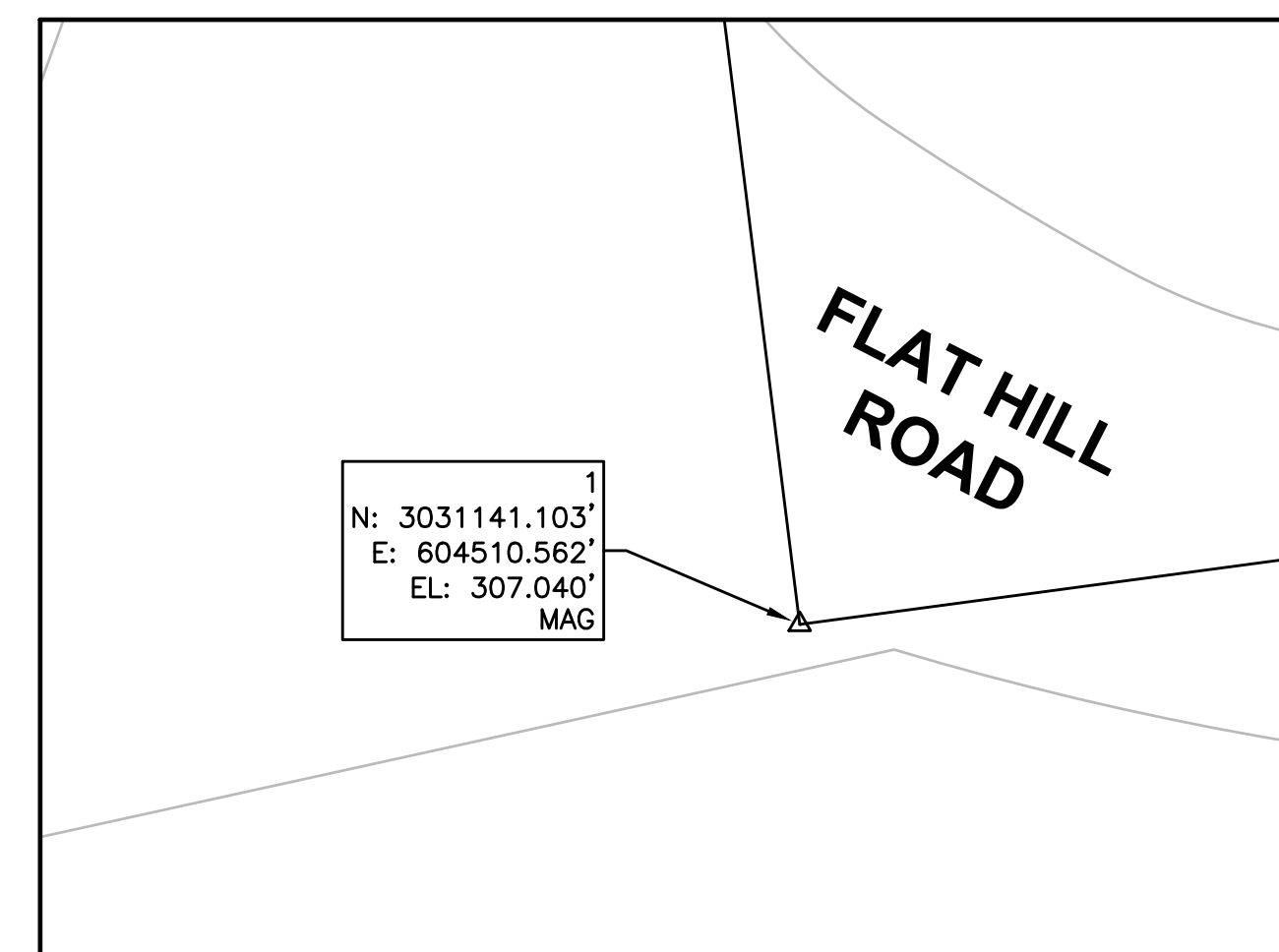
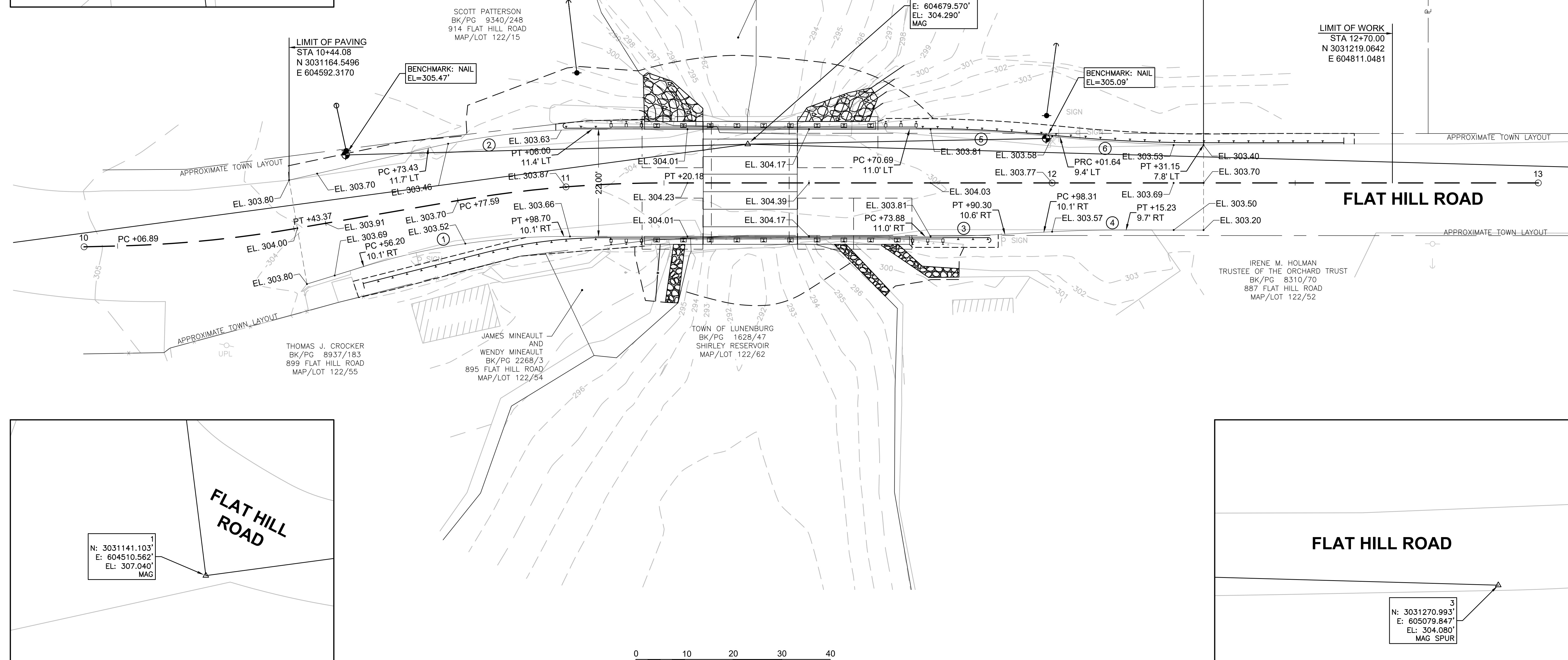
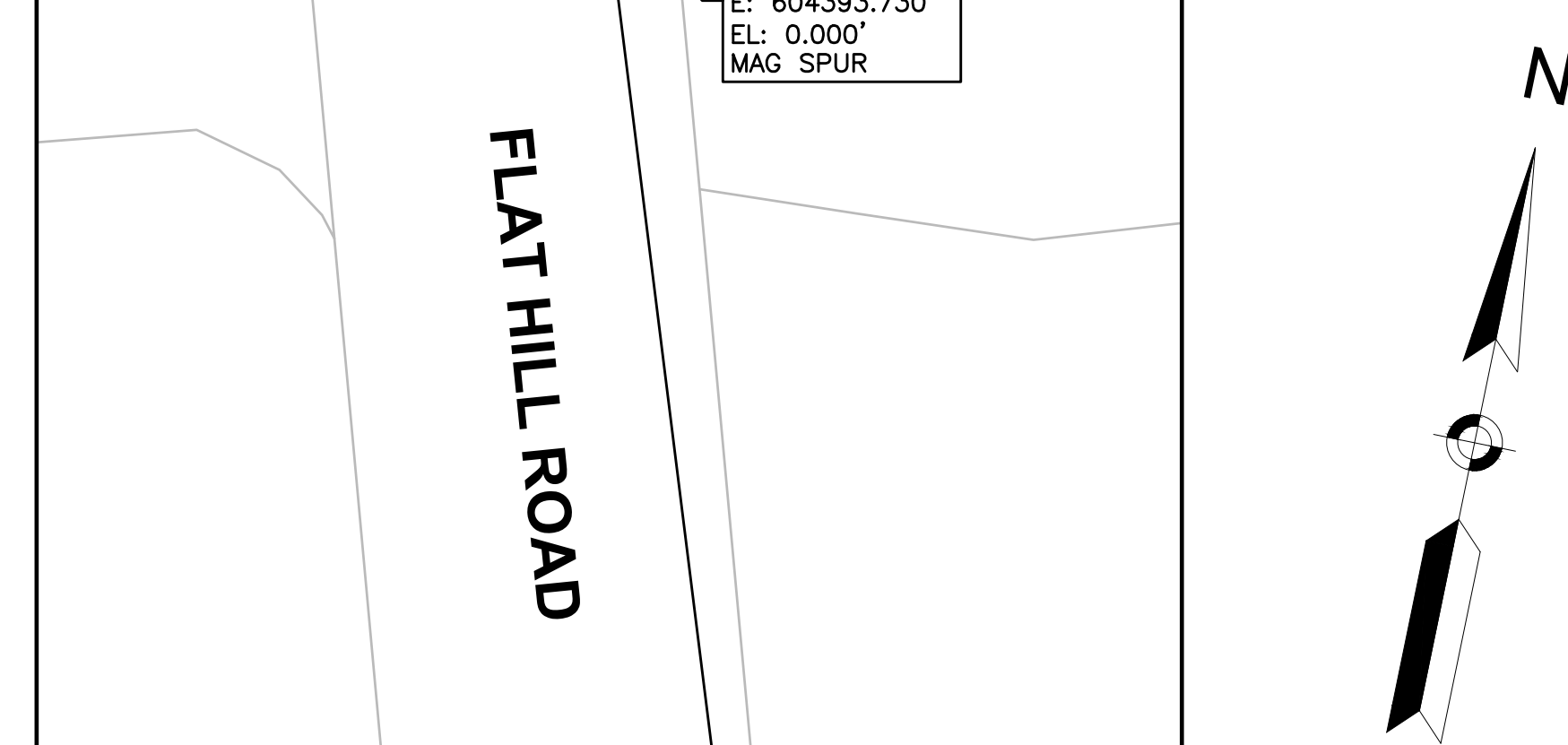
LUNENBURG  
 FLAT HILL ROAD  
 ALIGNMENT & GRADING PLANS  
 SHEET 5 OF 10

CURVE TABLE			
Curve #	Delta	Radius	Length
1	17°06'11"	140.00	41.79
2	12°57'38"	150.00	33.93
3	3°08'10"	300.00	16.42
4	3°13'58"	300.00	16.93
5	5°55'14"	300.00	31.00
6	5°38'51"	300.00	29.57

LIMIT OF PAVING  
 STA 12+31.15  
 N 3031211.2325  
 E 604772.9975

PATRICIA BEATTEAY  
 BK/PG 5838/138  
 890 FLAT HILL ROAD  
 MAP/LOT 122/16

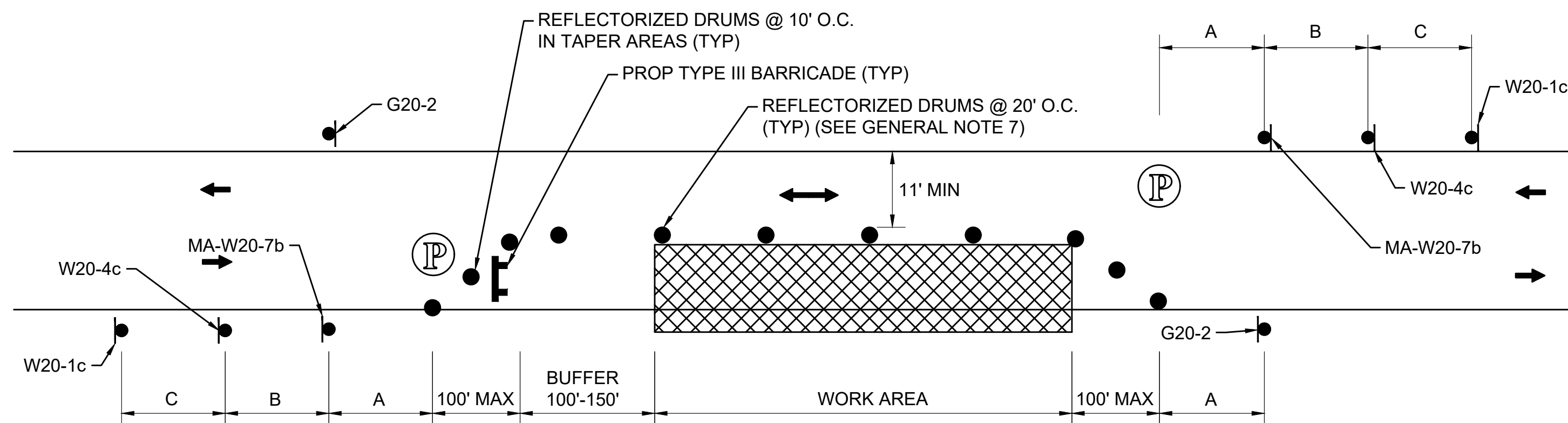
LIMIT OF WORK  
 STA 12+70.00  
 N 3031219.0642  
 E 604811.0481



0 10 20 30 40  
 SCALE: 1" = 10'

**GENERAL NOTES**

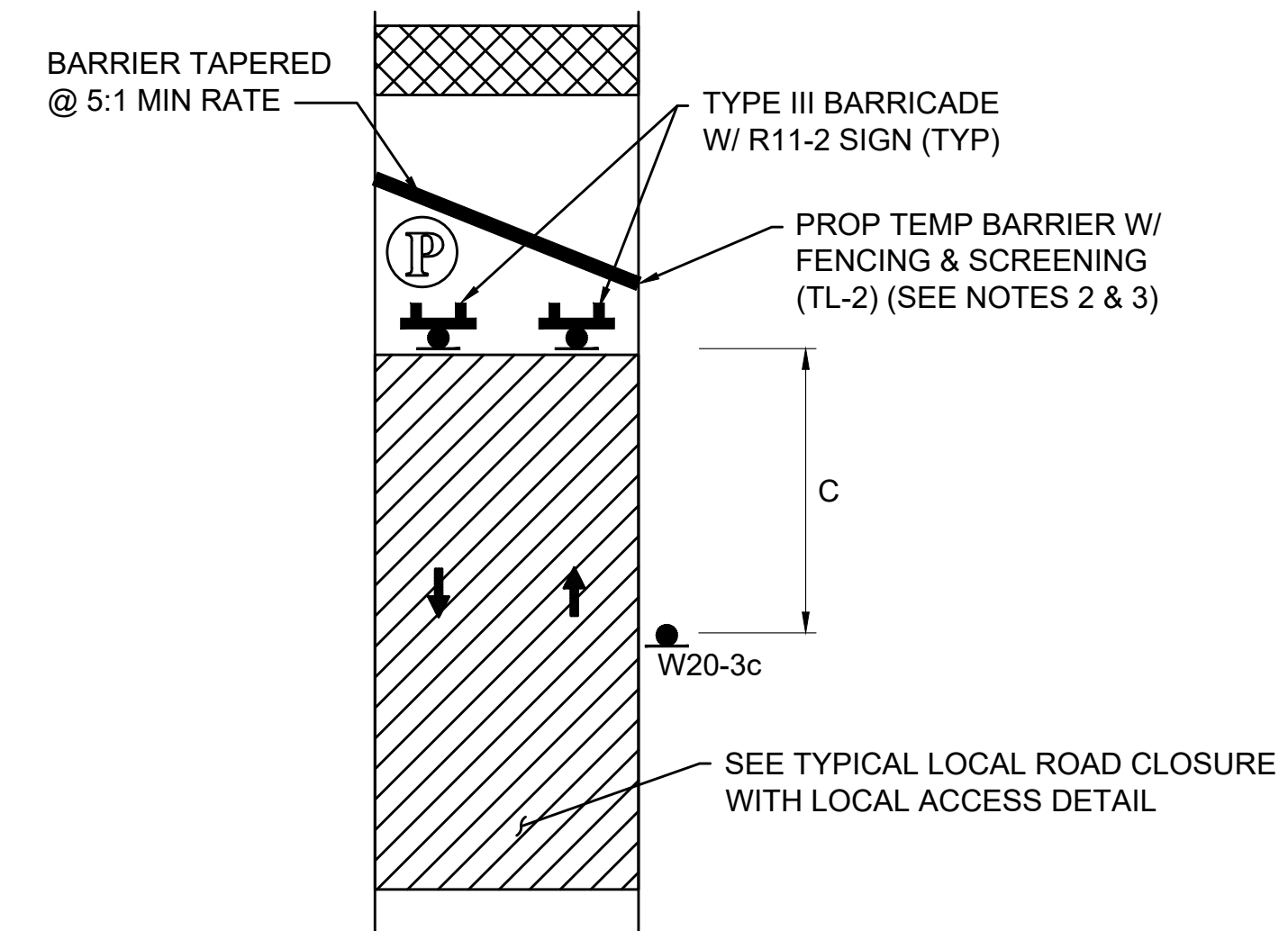
- ALL CONSTRUCTION SIGNING, TEMPORARY TRAFFIC CONTROL DEVICES, AND ROADSIDE ELEMENTS SHALL CONFORM WITH THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AS AMENDED, THE MASSDOT STANDARD DETAILS AND DRAWINGS FOR THE DEVELOPMENT OF TEMPORARY TRAFFIC CONTROL PLANS, THE LATEST REVISIONS OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, (AASHTO) ROADSIDE DESIGN GUIDE, AASHTO POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS, AND NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM (NCHRP) REPORT 350 OR THE AASHTO MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).
- FULL CLOSURE AND DETOUR OF FLAT HILL ROAD WILL BE PERMITTED DURING BRIDGE CONSTRUCTION. WORK HOURS SHALL BE AS APPROVED BY THE TOWN OF LUNENBURG.
- NO WORK SHALL OCCUR WITHIN THE PUBLIC WAY ON STATE RECOGNIZED HOLIDAYS UNLESS OTHERWISE APPROVED BY THE ENGINEER.
- ALL DRUMS OUTSIDE TAPERS SHALL BE SET AT 20' ON CENTER MAX. UNLESS OTHERWISE NOTED OR ADJUSTED BY THE ENGINEER.
- ALL DRUMS SHALL BE APPROXIMATELY PLACED AND MOVED AS NECESSARY TO MAINTAIN SAFE AND REASONABLE ABUTTER ACCESS. WORK MAY REQUIRE ADDITIONAL SIGNS, DRUMS AND OTHER TRAFFIC CONTROL DEVICES, GRADING AND TEMPORARY PAVEMENT FOR PASSAGE OF PEDESTRIAN, VEHICULAR AND EMERGENCY TRAFFIC THROUGH THE WORK AREAS, BOTH DURING AND AFTER WORKING HOURS, TO MAINTAIN SUCH ACCESS.
- REFLECTORIZED CONES SHALL BE A MINIMUM OF 36 INCHES IN HEIGHT.
- CONES MAY BE USED IN LIEU OF DRUMS OUTSIDE OF TAPER AREAS.
- THE CONTRACTOR SHALL NOTIFY EACH ABUTTER AT LEAST 48 HOURS IN ADVANCE OF THE START OF ANY WORK THAT WILL REQUIRE THE TEMPORARY CLOSURE OR RESTRICTION OF ACCESS.
- CONSTRUCTION CLEAR ZONE SHALL BE IN ACCORDANCE WITH MASSDOT BOSTON TRAFFIC GUIDELINES AS FOLLOWS:  
4' IF POSTED SPEED IS LESS THAN 35 MPH  
8' IF POSTED SPEED IS 35 MPH
- ALL TEMP BARRIERS SHALL MEET OR EXCEED MASH TL-2 REQUIREMENTS.
- 11' MINIMUM LANE WIDTHS SHALL BE MAINTAINED UNLESS OTHERWISE NOTED.
- TEMPORARY TRAFFIC CONTROL DEVICES AND SIGNS SHALL BE COVERED OR REMOVED DURING NON-WORKING HOURS WHEN NOT IN USE.
- SIGNS INSTALLED ON PORTABLE STANDS REQUIRE 12 INCH MINIMUM MOUNTING HEIGHT FROM THE ROADWAY SURFACE TO THE BOTTOM OF THE SIGN.
- SIGNS INSTALLED ON PORTABLE STANDS PLACED AMONG CHANNELIZATION DEVICES REQUIRE A 36 INCH MINIMUM MOUNTING HEIGHT FROM THE ROADWAY SURFACE TO THE BOTTOM OF THE SIGN.
- SIGNS MOUNTED ON POSTS REQUIRE A MINIMUM 84 INCH MOUNTING HEIGHT FROM THE ROADWAY OR SIDEWALK SURFACE TO THE BOTTOM OF THE SIGN.
- ALL SIGNS SHALL BE MOUNTED ON THEIR OWN NCHRP 350 AND/OR MASH CRASH TESTED SIGN SUPPORTS AND INSTALLED IN ACCORDANCE WITH THE MUTCD. SIGNS SHALL NOT BE MOUNTED TO OR LEANED AGAINST DRUMS OR CONES.
- CONTRACTOR SHALL SECURE WORK AREAS BY APPROPRIATE MEANS TO PREVENT UNAUTHORIZED ACCESS AT ALL TIMES.
- TEMPORARY FENCING SHALL BE CHAIN LINK FENCE.
- THERE IS NO DESIGNATED BICYCLE LANE ON THE ROADWAY WITHIN THE PROJECT LIMITS. BICYCLES ARE EXPECTED TO SHARE THE ROAD WITH GENERAL VEHICULAR TRAFFIC.
- CONTRACTOR TO COORDINATE DETOUR ROUTE WITH THE TOWN OF LUNENBURG PRIOR TO IMPLEMENTATION. ADDITIONAL TRAFFIC CONTROL DEVICES (DRUMS, SIGNAGE, MESSAGE BOARDS) MAY BE REQUIRED AT NO COST TO THE PROJECT.
- CONTRACTOR SHALL PROVIDE 2 PORTABLE CHANGE MESSAGE SIGN (PCMS) A MINIMUM OF 7 DAYS PRIOR TO AND POST START OF CONSTRUCTION. PCMS LOCATION AND MESSAGING SHALL BE AS APPROVED BY THE TOWN OF LUNENBURG.



- NOTES:**
- REFER TO ADVANCE SIGN SPACING TABLE.

**TYPICAL TWO-WAY STREET LANE CLOSURE ALTERNATING TRAFFIC**

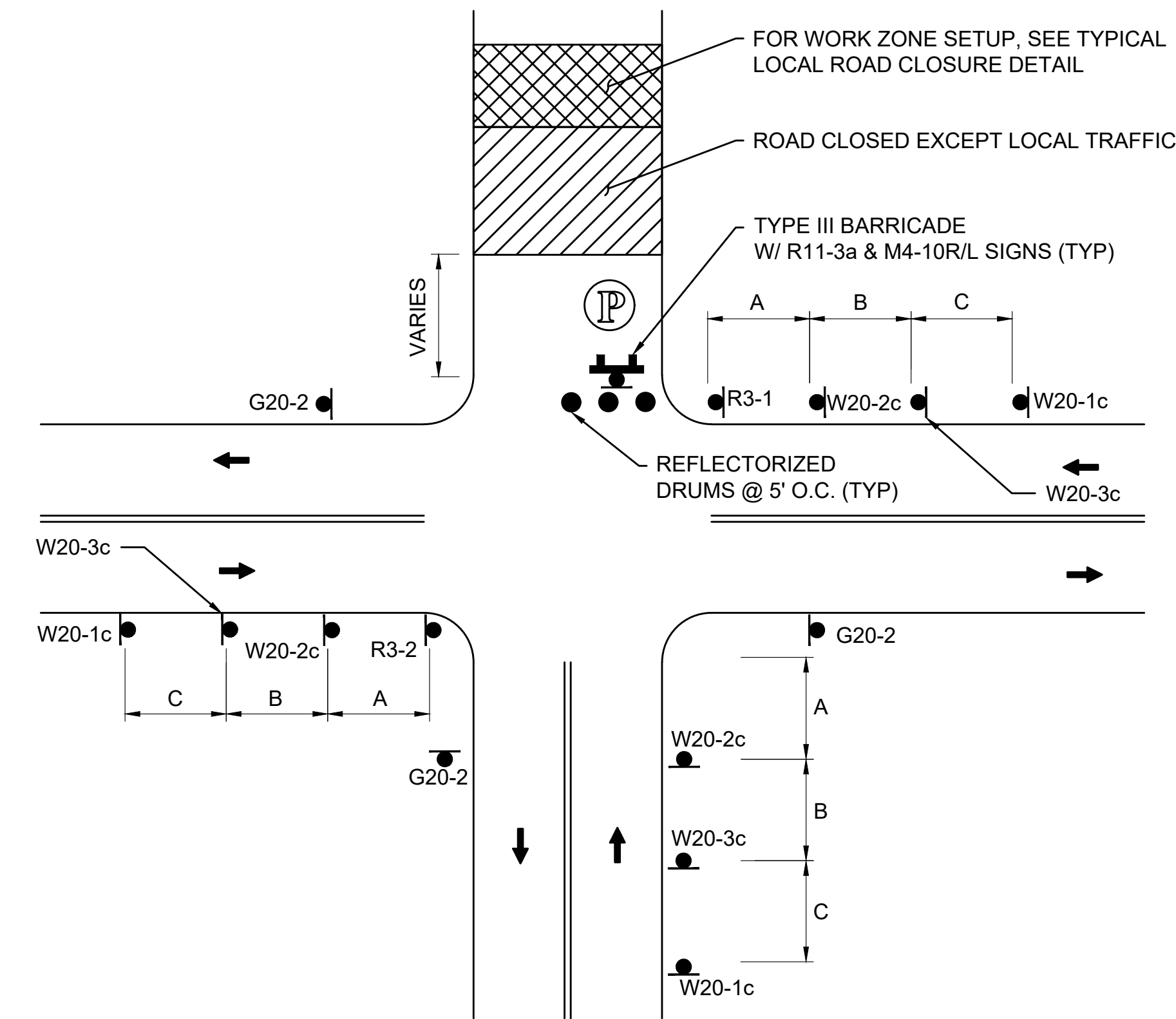
SCALE: NTS



- NOTES:**
- REFER TO ADVANCE SIGN SPACING TABLE.
  - PROP TEMP BARRIER BLUNT ENDS SHALL BE LOCATED OUTSIDE THE CONSTRUCTION CLEAR ZONE AND SHALL NOT BE EXPOSED TO TRAFFIC. IF BLUNT ENDS CANNOT BE SHIELDED THEN PROVIDE TEMPORARY IMPACT ATTENUATOR (TL-2) AT NO COST TO THE PROJECT.
  - THE PROPOSED TEMPORARY BARRIER WITH FENCING AND SCREENING IS PROVIDED TO PREVENT ACCESS TO THE WORK AREA. THE USE OF TEMPORARY BARRIER FOR THIS PURPOSE IS NOT INTENDED TO PROVIDE PROTECTION OF ANY KIND FROM HAZARDS THAT EXIST BEYOND SAID BARRIER AND IS PROVIDED FOR INCREASED SITE SECURITY ONLY. BARRIER SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION.

**TYPICAL LOCAL ROAD CLOSURE**

SCALE: NTS



- NOTE:**
- REFER TO ADVANCE SIGN SPACING TABLE.

**TYPICAL LOCAL ROAD CLOSURE WITH LOCAL ACCESS**

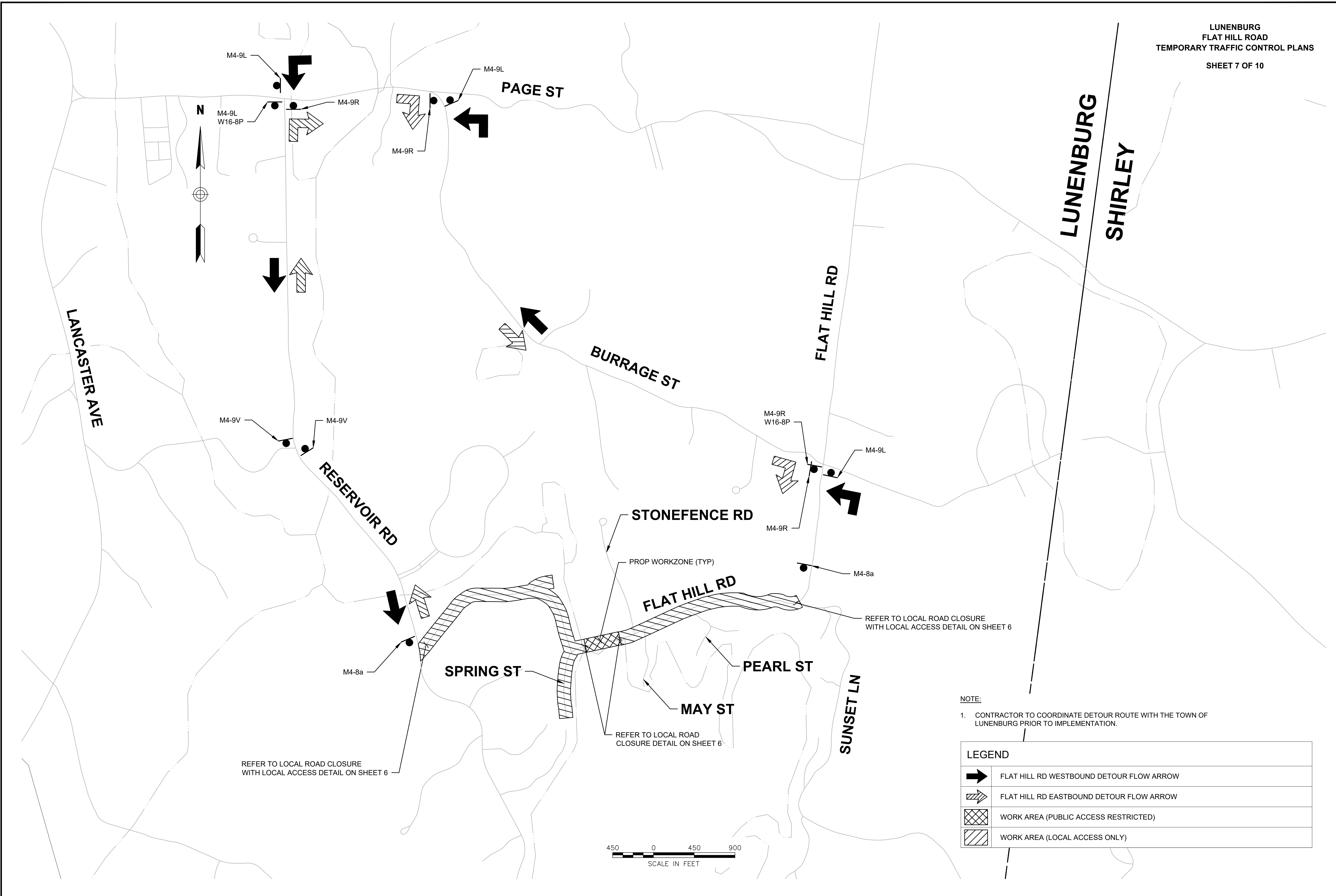
SCALE: NTS

**LEGEND**

	POLICE OFFICER
	REFLECTORIZED DRUM
	TEMPORARY CONSTRUCTION SIGN
	TRAFFIC CONE
	TYPE III BARRICADE
	TEMPORARY BARRIER
	WORK AREA (PUBLIC ACCESS RESTRICTED)
	TRANSITION/BUFFER AREAS
	TRAFFIC FLOW
NTS	NOT TO SCALE
TTCP	TEMPORARY TRAFFIC CONTROL PLANS

**ADVANCE SIGN SPACING**

ROADWAY	DISTANCE BETWEEN SIGNS (FEET)		
	A	B	C
RESERVOIR RD	350	350	350
ALL OTHER ROADWAYS	100	100	100



REFER TO LOCAL ROAD CLOSURE WITH LOCAL ACCESS DETAIL ON SHEET 6

REFER TO LOCAL ROAD CLOSURE DETAIL ON SHEET 6













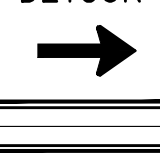
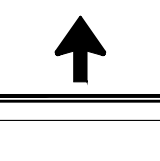


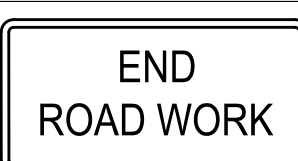
REFER TO LOCAL ROAD CLOSURE WITH LOCAL ACCESS DETAIL ON SHEET 6

**NOTE:**

1. CONTRACTOR TO COORDINATE DETOUR ROUTE WITH THE TOWN OF LUNENBURG PRIOR TO IMPLEMENTATION.

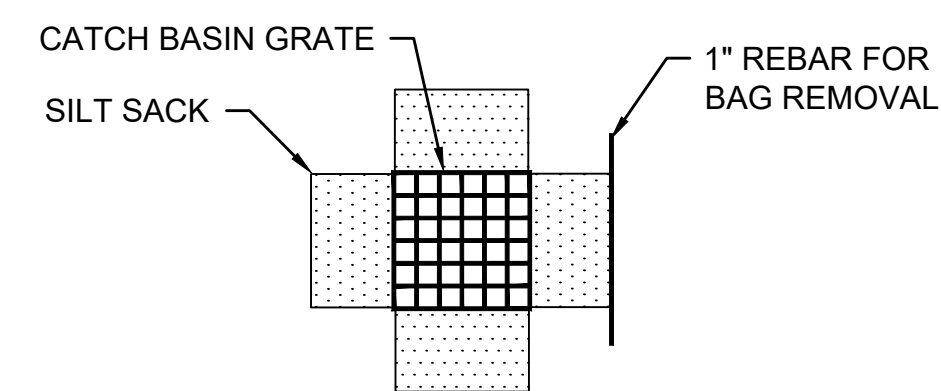
LEGEND	
	FLAT HILL RD WESTBOUND DETOUR FLOW ARROW
	FLAT HILL RD EASTBOUND DETOUR FLOW ARROW
	WORK AREA (PUBLIC ACCESS RESTRICTED)
	WORK AREA (LOCAL ACCESS ONLY)



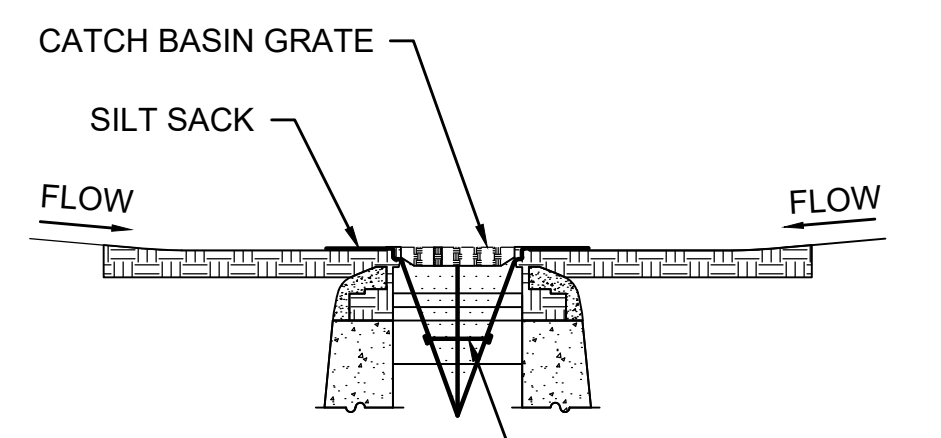
TEMPORARY TRAFFIC CONTROL SIGN SUMMARY									
IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			COLOR		
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.	BACK-GROUND	LEGEND	BORDER
R3-1	24"	24"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			WHITE	RED/BLACK	BLACK
R3-2	24"	24"					WHITE	RED/BLACK	BLACK
R11-2	48"	30"					WHITE	BLACK	BLACK
R11-3a	60"	30"					WHITE	BLACK	BLACK
W16-8P	24"	8"					FLUORESCENT ORANGE	BLACK	BLACK
W20-1c	36"	36"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			FLUORESCENT ORANGE	BLACK	BLACK
W20-2c	36"	36"					FLUORESCENT ORANGE	BLACK	BLACK
W20-3c	36"	36"					FLUORESCENT ORANGE	BLACK	BLACK
W20-4c	36"	36"					FLUORESCENT ORANGE	BLACK	BLACK
MA-W20-7b	36"	36"		AS PER MASSDOT STANDARD			FLUORESCENT ORANGE	BLACK	BLACK
M4-8a	24"	18"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			FLUORESCENT ORANGE	BLACK	BLACK
M4-9L	30"	24"					FLUORESCENT ORANGE	BLACK	BLACK
M4-9R	30"	24"					FLUORESCENT ORANGE	BLACK	BLACK
M4-9V	30"	24"					FLUORESCENT ORANGE	BLACK	BLACK
M4-10L	48"	18"					FLUORESCENT ORANGE	BLACK	---
M4-10R	48"	18"					FLUORESCENT ORANGE	BLACK	---
G20-2	36"	18"					FLUORESCENT ORANGE	BLACK	BLACK

NOTES:

- HIGH INTENSITY REFLECTIVE SHEETING SHALL BE USED FOR ALL SIGNS. SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION" FOR TEXT DIMENSIONS, AS AMENDED; THE 1977 MASSHIGHWAY DEPARTMENT CONSTRUCTION AND TRAFFIC STANDARD DETAILS, AS AMENDED, FOR SIGNS AND SUPPORTS; THE MASSHIGHWAY DEPARTMENT SIGN LISTINGS 1993 EDITION, AS AMENDED; THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR MOUNTING REQUIREMENTS; AND THE 2017 MassDOT STANDARD SIGNS BOOK, AS AMENDED.
- ALL SIGNS SHOWN GRAPHICALLY FOR INFORMATION ONLY. SIGN VENDOR SHALL FABRICATE ALL SIGNS IN ACCORDANCE WITH THE APPLICABLE STANDARDS.



PLAN VIEW

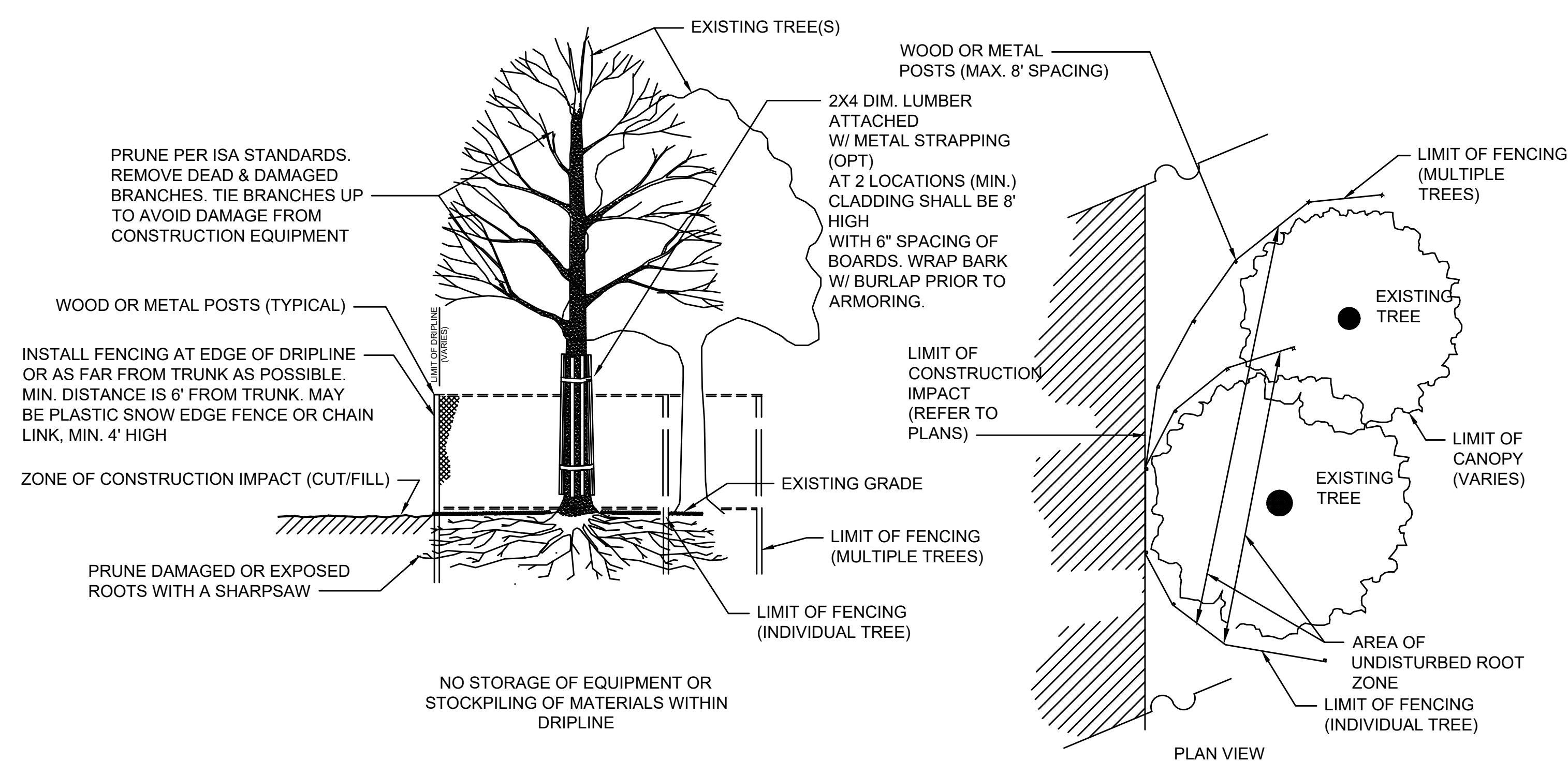


SECTION VIEW

- NOTES:**
1. INSTALL SILT SACK IN EXISTING CATCH BASINS, BEFORE COMMENCING WORK, AND IN NEW CATCH BASINS IMMEDIATELY AFTER INSTALLATION OF STRUCTURE. MAINTAIN UNTIL BINDER COURSE PAVING IS COMPLETE OR A PERMANENT STAND OF GRASS HAS BEEN ESTABLISHED.
  2. GRATE TO BE PLACED OVER SILT SACK.
  3. SILT SACK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS AND CLEANING OR REPLACEMENT SHALL BE PERFORMED

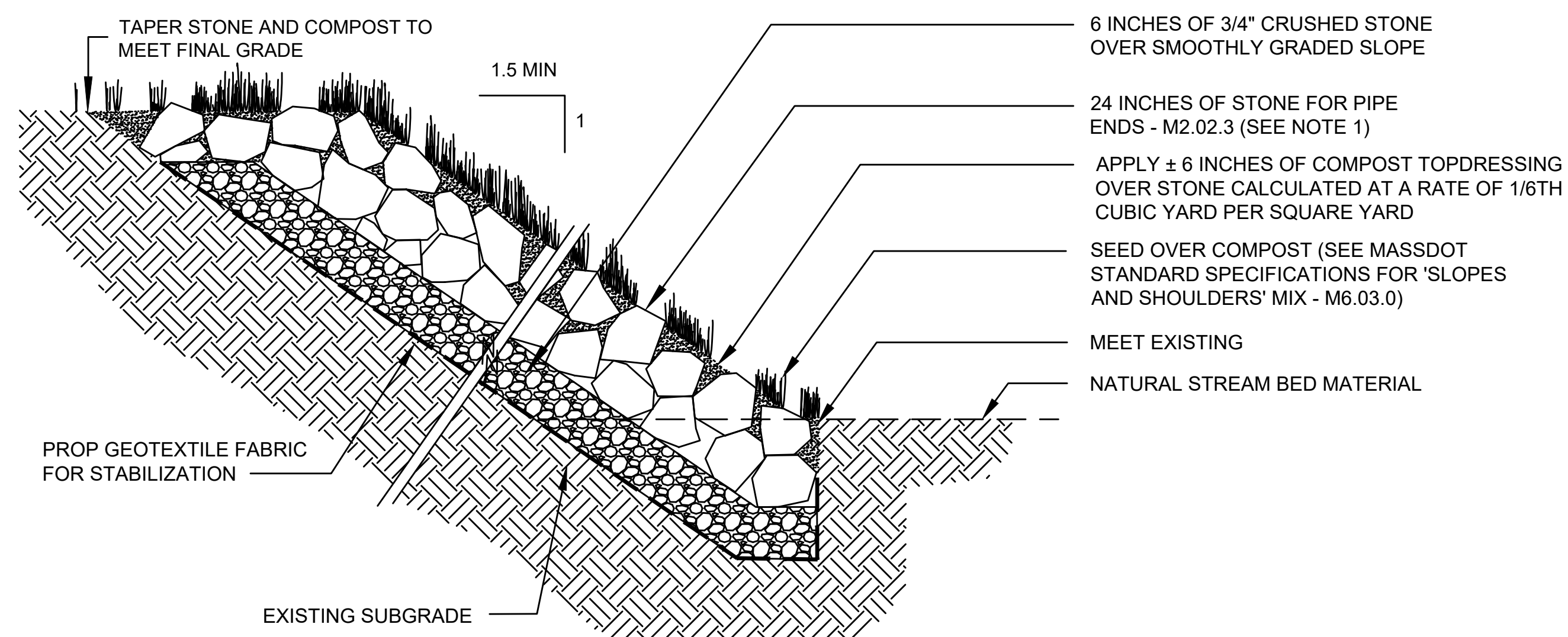
**INLET PROTECTION - SILT SACK IN CATCH BASIN**

SCALE: N.T.S.



**TREE PROTECTION OF EXISTING TREE(S)**

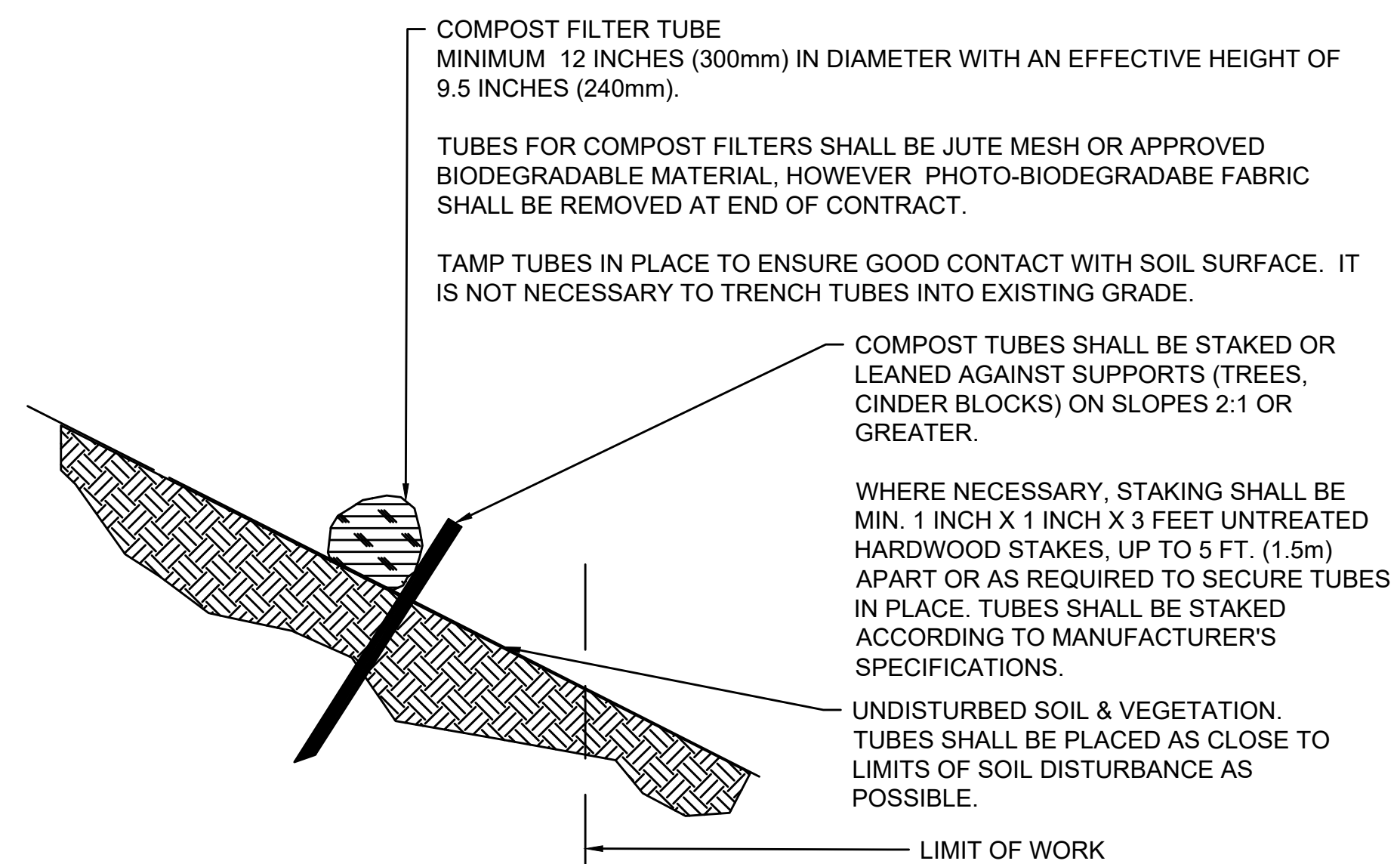
SCALE: N.T.S.



- NOTES:**
1. EXISTING BOULDERS AND LARGE STONES WITHIN RECONSTRUCTED SLOPE AREAS SHALL BE REUSED TO THE EXTENT PRACTICABLE AS APPROVED BY THE ENGINEER

**STONE SLOPE WITH COMPOST & SEED**

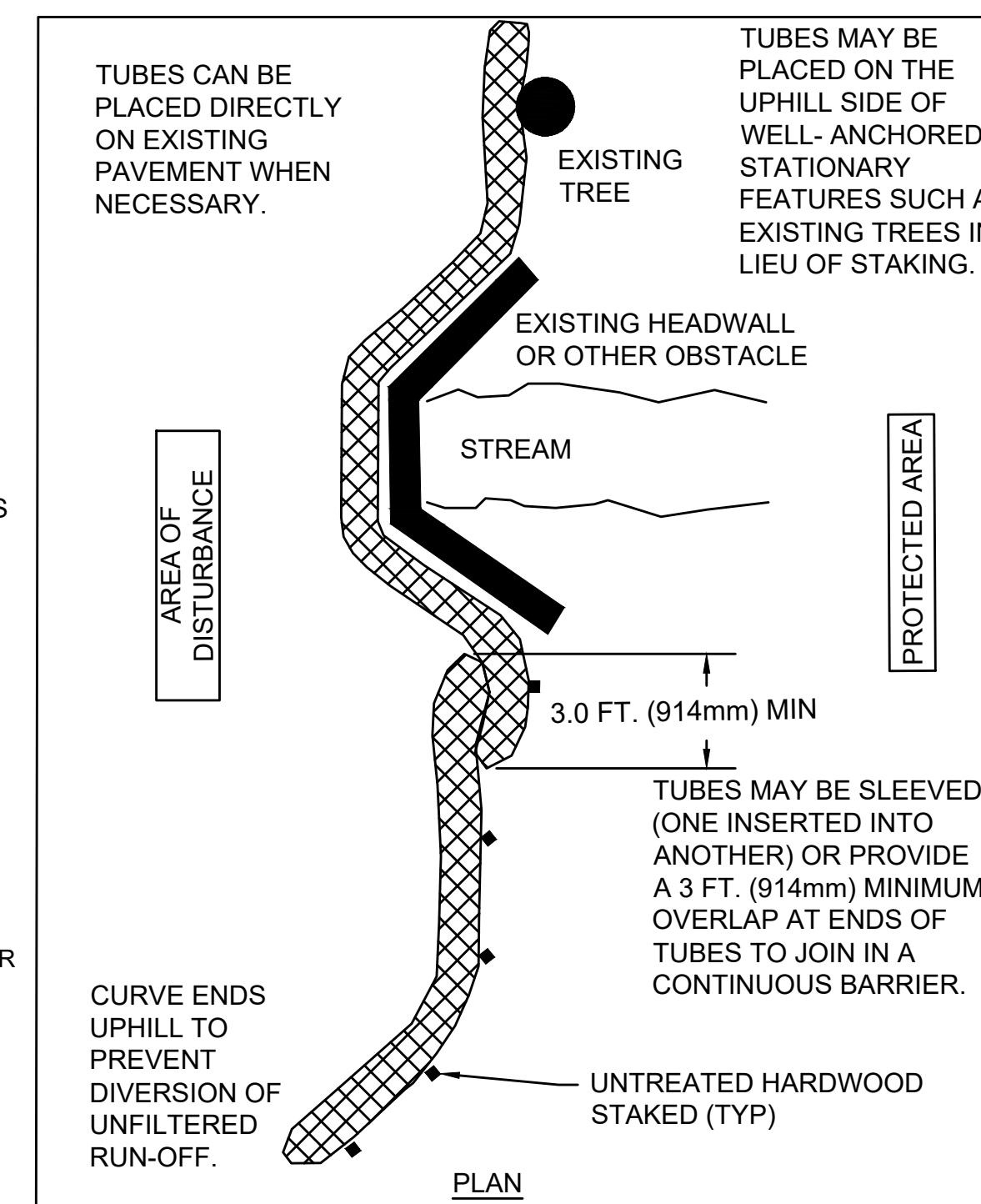
SCALE: N.T.S.

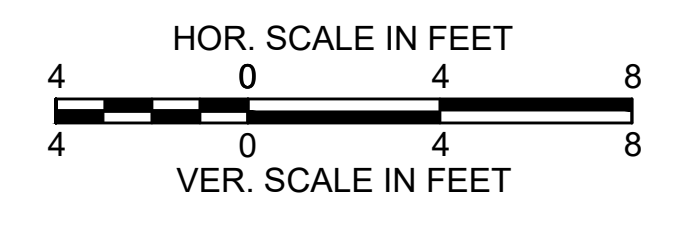
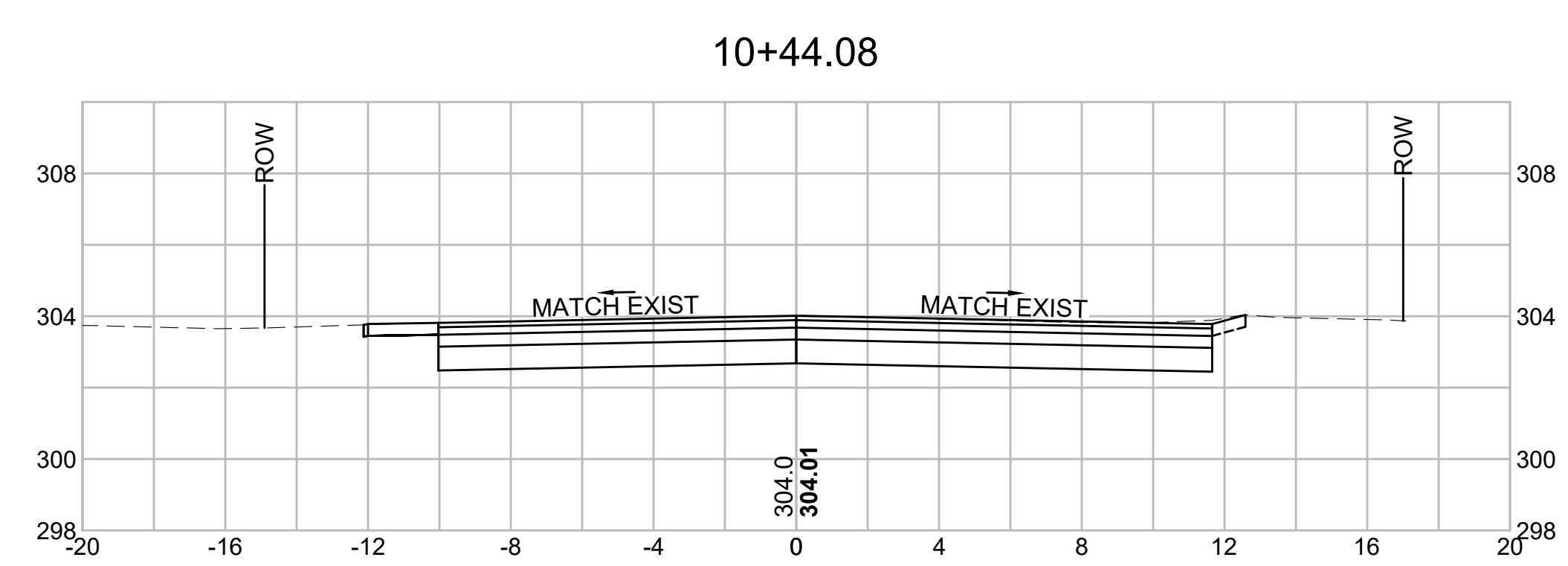
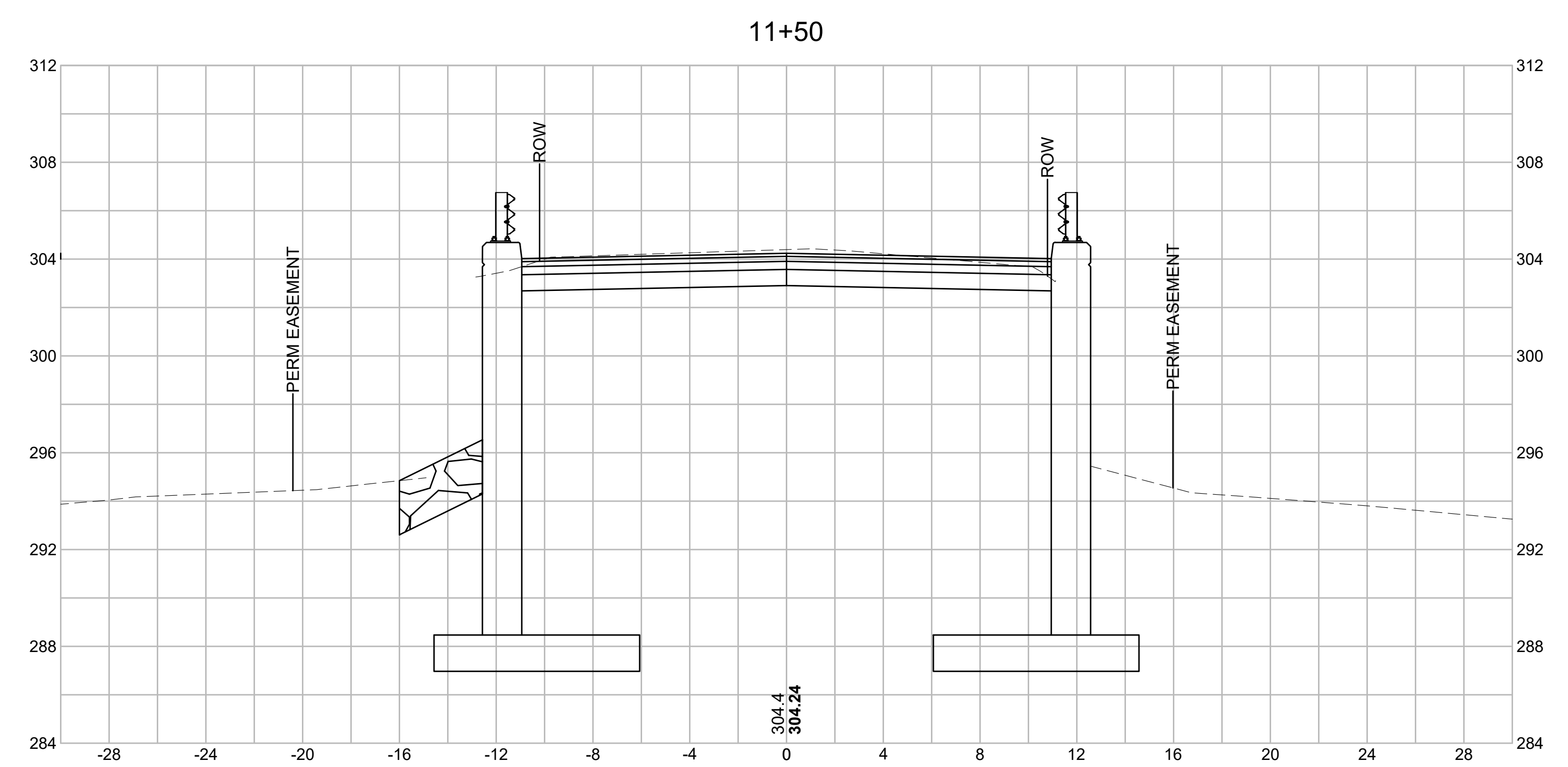
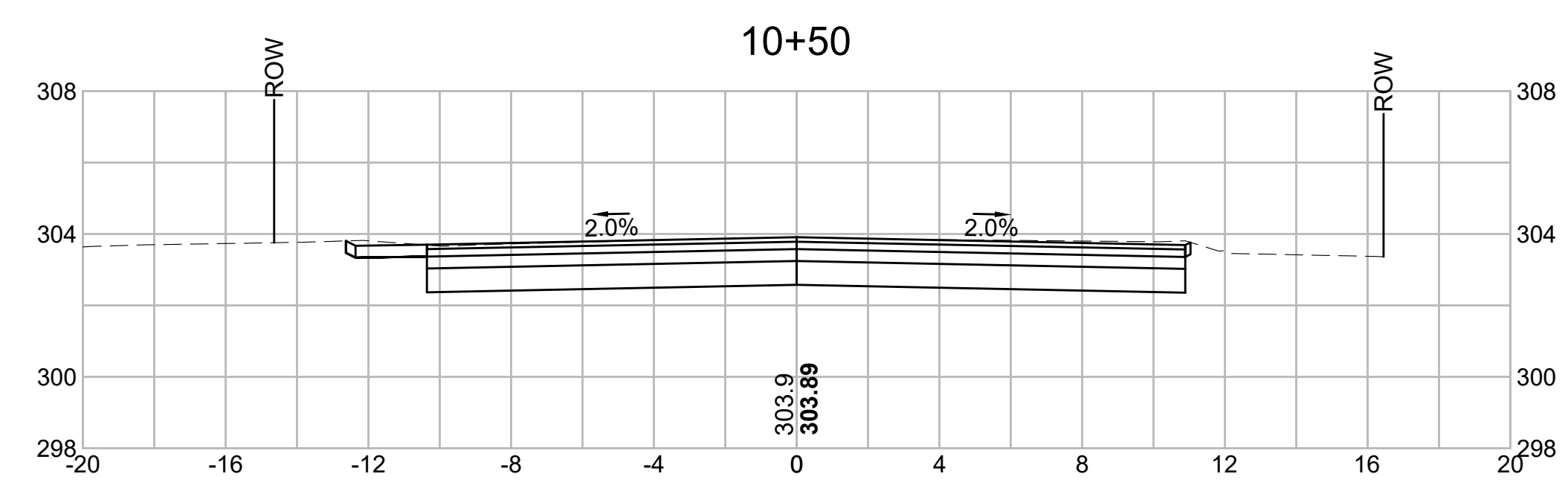
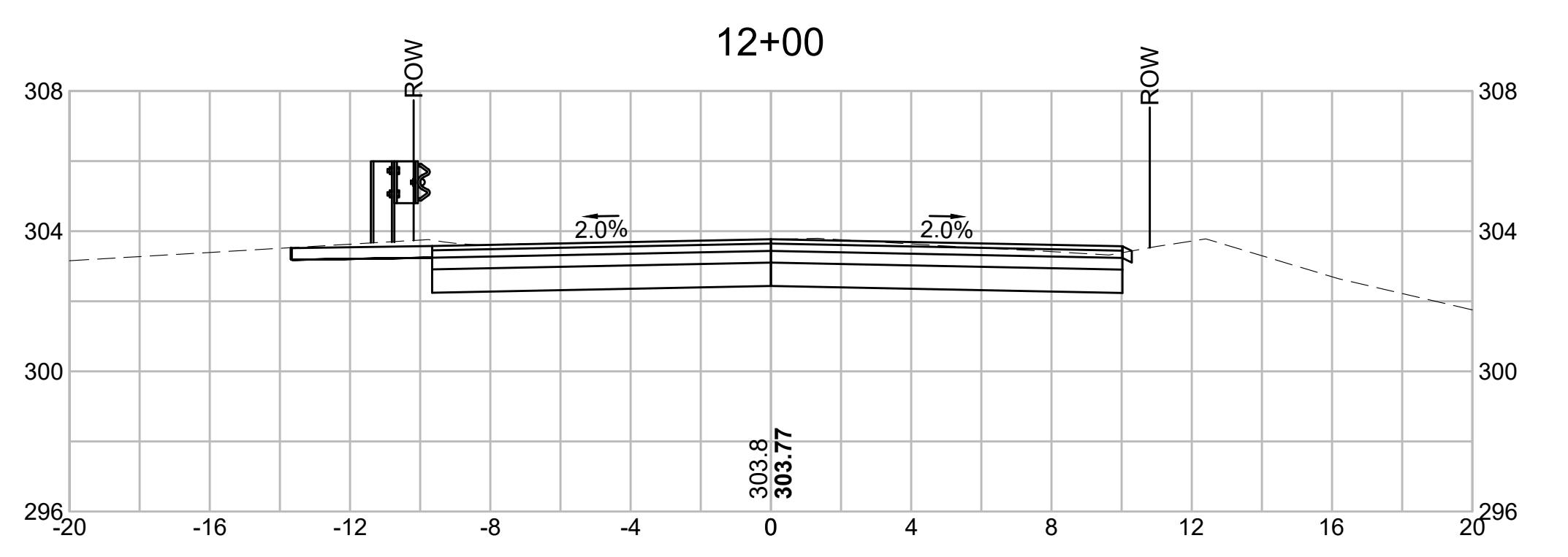
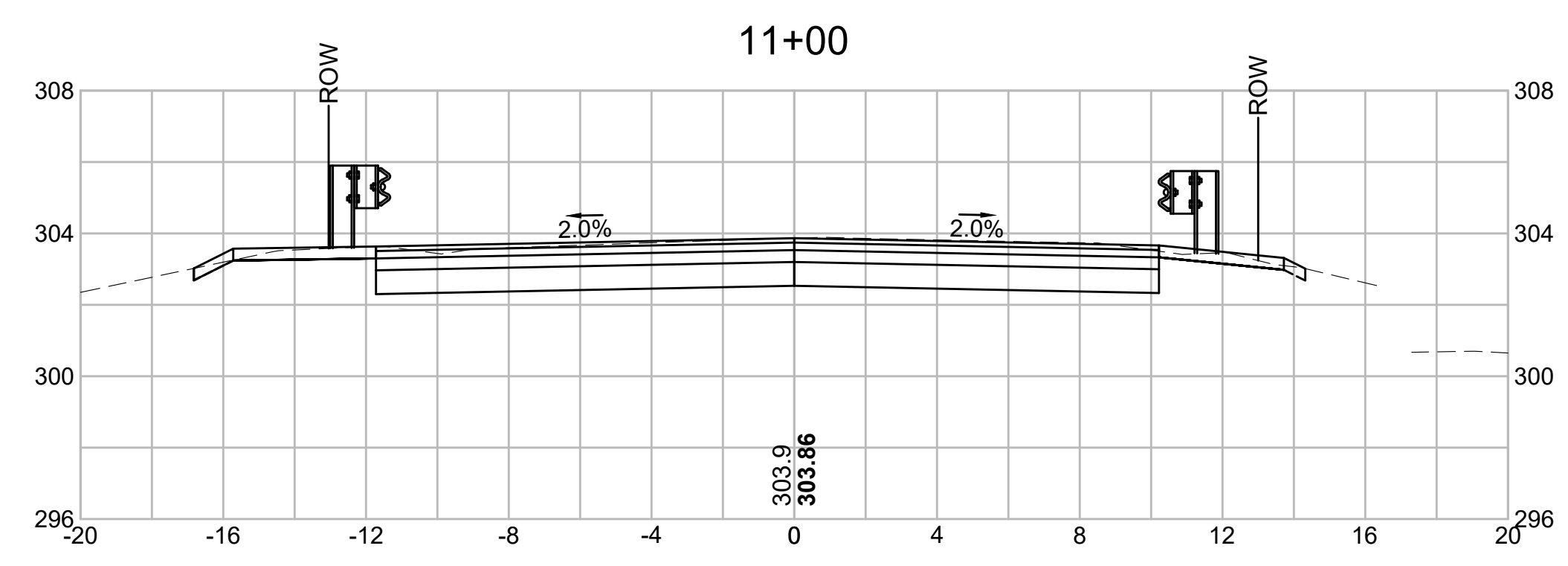
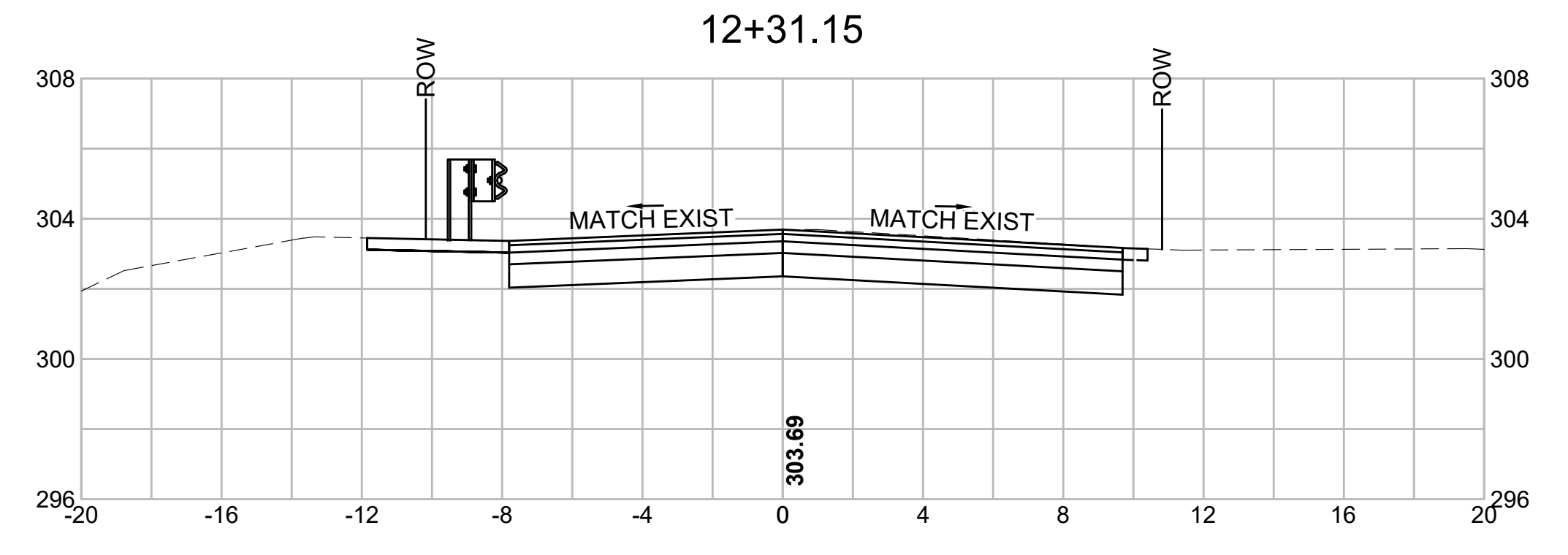
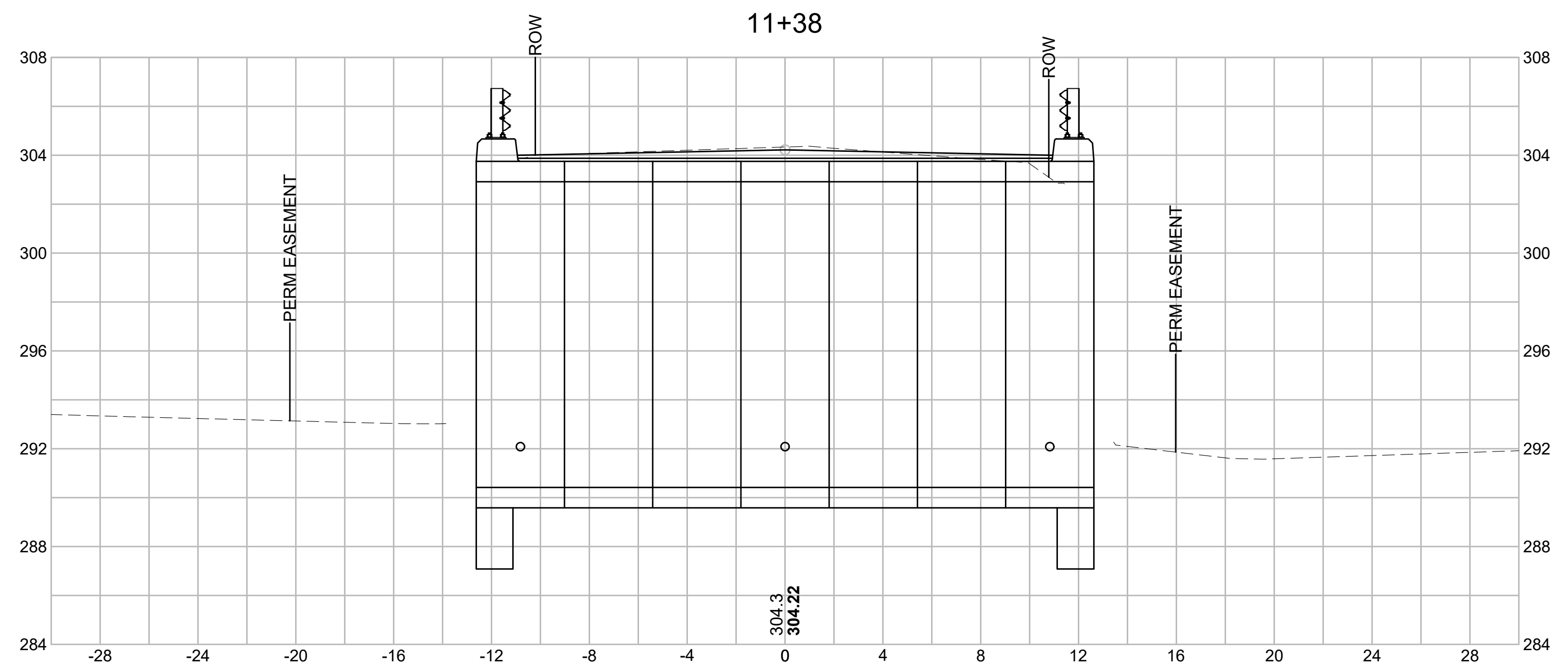


- NOTES:**
1. PROVIDE A MINIMUM TUBE DIAMETER OF 12 INCHES (300mm) FOR SLOPES UP TO 50 FEET (15.24m) IN LENGTH WITH A SLOPE RATIO OF 3H:1V OR STEEPER. LONGER SLOPES OF 3H:1V MAY REQUIRE LARGER TUBE DIAMETER OR ADDITIONAL COURSING OF FILTER TUBES TO CREATE A FILTER BERM. REFER TO MANUFACTURER'S RECOMMENDATIONS FOR SITUATIONS WITH LONGER OR STEEPER SLOPES.
  2. INSTALL TUBES ALONG CONTOURS AND PERPENDICULAR TO SHEET OR CONCENTRATED FLOW.
  3. TUBE LOCATION MAY BE SHIFTED TO ADJUST TO LANDSCAPE FEATURES, BUT SHALL PROTECT UNDISTURBED AREA AND VEGETATION TO MAXIMUM EXTENT POSSIBLE.
  4. DO NOT INSTALL IN PERENNIAL, EPHEMERAL OR INTERMITTENT STREAMS.
  5. ADDITIONAL TUBES SHALL BE USED AT THE DIRECTION OF THE ENGINEER.
  6. ADDITIONAL STAKING SHALL BE USED AT THE DIRECTION OF THE ENGINEER.

**SEDIMENT CONTROL BARRIER**

SCALE: N.T.S.





# **ATTACHMENT E**

A TRUE COPY ATTEST

Kathryn M. Herrick, Town Clerk



Massachusetts Department of Environmental Protection  
Bureau of Resource Protection - Wetlands

**WPA Form 5 – Order of Conditions**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

208-1229

MassDEP File #

eDEP Transaction #

Lunenburg

City/Town

**A. General Information**

Please note:  
this form has  
been modified  
with added  
space to  
accommodate  
the Registry  
of Deeds  
Requirements

Important:  
When filling  
out forms on  
the  
computer,  
use only the  
tab key to  
move your  
cursor - do  
not use the  
return key.



1. From: Lunenburg  
Conservation Commission

2. This issuance is for (check one):  
a.  Order of Conditions b.  Amended Order of Conditions

3. To: Applicant:  
a. First Name Heather b. Last Name Lemieux

c. Organization Town of Lunenburg

d. Mailing Address 17 Main Street

e. City/Town Lunenburg f. State MA g. Zip Code 01462

4. Property Owner (if different from applicant):  
a. First Name \_\_\_\_\_ b. Last Name \_\_\_\_\_

c. Organization \_\_\_\_\_

d. Mailing Address \_\_\_\_\_

e. City/Town \_\_\_\_\_ f. State \_\_\_\_\_ g. Zip Code \_\_\_\_\_

5. Project Location:  
a. Street Address Flatt Hill Road b. City/Town Lunenburg

c. Assessors Map/Plat Number \_\_\_\_\_ d. Parcel/Lot Number \_\_\_\_\_

Latitude and Longitude, if known: 42d56m55.9s 71d69m11.5s  
d. Latitude e. Longitude



**Massachusetts Department of Environmental Protection**  
**Bureau of Resource Protection - Wetlands**  
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**A. General Information (cont.)**

6. Property recorded at the Registry of Deeds for (attach additional information if more than one parcel):  
 Worcester North  
 a. County \_\_\_\_\_ b. Certificate Number (if registered land) \_\_\_\_\_  
 c. Book \_\_\_\_\_ d. Page \_\_\_\_\_
7. Dates: May 20 2021 July 7, 2021 August 19, 2021  
 a. Date Notice of Intent Filed b. Date Public Hearing Closed c. Date of Issuance
8. Final Approved Plans and Other Documents (attach additional plan or document references as needed):  
 Flat Hill Road Bridge  
 a. Plan Title \_\_\_\_\_ b. Prepared By \_\_\_\_\_ c. Signed and Stamped by \_\_\_\_\_  
 VHB VHB  
 d. Final Revision Date 5/17/2021 e. Scale 20  
 f. Additional Plan or Document Title \_\_\_\_\_ g. Date \_\_\_\_\_

**B. Findings**

1. Findings pursuant to the Massachusetts Wetlands Protection Act:  
 Following the review of the above-referenced Notice of Intent and based on the information provided in this application and presented at the public hearing, this Commission finds that the areas in which work is proposed is significant to the following interests of the Wetlands Protection Act (the Act). Check all that apply:
- a.  Public Water Supply    b.  Land Containing Shellfish    c.  Prevention of Pollution  
 d.  Private Water Supply    e.  Fisheries    f.  Protection of Wildlife Habitat  
 g.  Groundwater Supply    h.  Storm Damage Prevention    i.  Flood Control
2. This Commission hereby finds the project, as proposed, is: (check one of the following boxes)

**Approved subject to:**

- a.  the following conditions which are necessary in accordance with the performance standards set forth in the wetlands regulations. This Commission orders that all work shall be performed in accordance with the Notice of Intent referenced above, the following General Conditions, and any other special conditions attached to this Order. To the extent that the following conditions modify or differ from the plans, specifications, or other proposals submitted with the Notice of Intent, these conditions shall control.

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*Kathryn M. Herrick*  
 Kathryn M. Herrick, Town Clerk



Massachusetts Department of Environmental Protection  
 Bureau of Resource Protection - Wetlands  
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**B. Findings (cont.)**

Denied because:

- b.  the proposed work cannot be conditioned to meet the performance standards set forth in the wetland regulations. Therefore, work on this project may not go forward unless and until a new Notice of Intent is submitted which provides measures which are adequate to protect the interests of the Act, and a final Order of Conditions is issued. **A description of the performance standards which the proposed work cannot meet is attached to this Order.**
- c.  the information submitted by the applicant is not sufficient to describe the site, the work, or the effect of the work on the interests identified in the Wetlands Protection Act. Therefore, work on this project may not go forward unless and until a revised Notice of Intent is submitted which provides sufficient information and includes measures which are adequate to protect the Act's interests, and a final Order of Conditions is issued. **A description of the specific information which is lacking and why it is necessary is attached to this Order as per 310 CMR 10.05(6)(c).**
3.  Buffer Zone Impacts: Shortest distance between limit of project disturbance and the wetland resource area specified in 310 CMR 10.02(1)(a) \_\_\_\_\_ a. linear feet

**Inland Resource Area Impacts: Check all that apply below. (For Approvals Only)**

Resource Area	Proposed Alteration	Permitted Alteration	Proposed Replacement	Permitted Replacement
4. <input checked="" type="checkbox"/> Bank	135 a. linear feet	135 b. linear feet	107 c. linear feet	107 d. linear feet
5. <input type="checkbox"/> Bordering Vegetated Wetland	_____ a. square feet	_____ b. square feet	_____ c. square feet	_____ d. square feet
6. <input checked="" type="checkbox"/> Land Under Waterbodies and Waterways	893 a. square feet	893 b. square feet	868 c. square feet	868 d. square feet
	_____ e. c/y dredged	_____ f. c/y dredged		
7. <input checked="" type="checkbox"/> Bordering Land Subject to Flooding	127 a. square feet	127 b. square feet	104 c. square feet	104 d. square feet
Cubic Feet Flood Storage	_____ e. cubic feet	_____ f. cubic feet	24.3 g. cubic feet	24.3 h. cubic feet
8. <input type="checkbox"/> Isolated Land Subject to Flooding	_____ a. square feet	_____ b. square feet		
Cubic Feet Flood Storage	_____ c. cubic feet	_____ d. cubic feet	_____ e. cubic feet	_____ f. cubic feet
9. <input type="checkbox"/> Riverfront Area	_____ a. total sq. feet	_____ b. total sq. feet		
Sq ft within 100 ft	_____ c. square feet	_____ d. square feet	_____ e. square feet	_____ f. square feet
Sq ft between 100-200 ft	_____ g. square feet	_____ h. square feet	_____ i. square feet	_____ j. square feet

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 Kathryn M. Herrick, Town Clerk



Massachusetts Department of Environmental Protection  
Bureau of Resource Protection - Wetlands

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**B. Findings (cont.)**

**Coastal Resource Area Impacts: Check all that apply below. (For Approvals Only)**

	Proposed Alteration	Permitted Alteration	Proposed Replacement	Permitted Replacement
10. <input type="checkbox"/> Designated Port Areas	Indicate size under Land Under the Ocean, below			
11. <input type="checkbox"/> Land Under the Ocean	<u>                    </u> a. square feet	<u>                    </u> b. square feet		
	<u>                    </u> c. c/y dredged	<u>                    </u> d. c/y dredged		
12. <input type="checkbox"/> Barrier Beaches	Indicate size under Coastal Beaches and/or Coastal Dunes below			
13. <input type="checkbox"/> Coastal Beaches	<u>                    </u> a. square feet	<u>                    </u> b. square feet	<u>                    </u> c. nourishment cu yd	<u>                    </u> d. nourishment cu yd
14. <input type="checkbox"/> Coastal Dunes	<u>                    </u> a. square feet	<u>                    </u> b. square feet	<u>                    </u> c. nourishment cu yd	<u>                    </u> d. nourishment cu yd
15. <input type="checkbox"/> Coastal Banks	<u>                    </u> a. linear feet	<u>                    </u> b. linear feet		
16. <input type="checkbox"/> Rocky Intertidal Shores	<u>                    </u> a. square feet	<u>                    </u> b. square feet		
17. <input type="checkbox"/> Salt Marshes	<u>                    </u> a. square feet	<u>                    </u> b. square feet	<u>                    </u> c. square feet	<u>                    </u> d. square feet
18. <input type="checkbox"/> Land Under Salt Ponds	<u>                    </u> a. square feet	<u>                    </u> b. square feet		
	<u>                    </u> c. c/y dredged	<u>                    </u> d. c/y dredged		
19. <input type="checkbox"/> Land Containing Shellfish	<u>                    </u> a. square feet	<u>                    </u> b. square feet	<u>                    </u> c. square feet	<u>                    </u> d. square feet
20. <input type="checkbox"/> Fish Runs	Indicate size under Coastal Banks, Inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above			
	<u>                    </u> a. c/y dredged	<u>                    </u> b. c/y dredged		
21. <input type="checkbox"/> Land Subject to Coastal Storm Flowage	<u>                    </u> a. square feet	<u>                    </u> b. square feet		

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*Kathryn M. Herrick*  
Kathryn M. Herrick, Town Clerk



**Massachusetts Department of Environmental Protection**  
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**B. Findings (cont.)**

\* #22. If the project is for the purpose of restoring or enhancing a wetland resource area in addition to the square footage that has been entered in Section B.5.c (BVW) or B.17.c (Salt Marsh) above, please enter the additional amount here.

22.  Restoration/Enhancement \*:

a. square feet of BVW \_\_\_\_\_

b. square feet of salt marsh \_\_\_\_\_

23.  Stream Crossing(s):

a. number of new stream crossings \_\_\_\_\_

b. number of replacement stream crossings \_\_\_\_\_

**C. General Conditions Under Massachusetts Wetlands Protection Act**

The following conditions are only applicable to Approved projects.

1. Failure to comply with all conditions stated herein, and with all related statutes and other regulatory measures, shall be deemed cause to revoke or modify this Order.
2. The Order does not grant any property rights or any exclusive privileges; it does not authorize any injury to private property or invasion of private rights.
3. This Order does not relieve the permittee or any other person of the necessity of complying with all other applicable federal, state, or local statutes, ordinances, bylaws, or regulations.
4. The work authorized hereunder shall be completed within three years from the date of this Order unless either of the following apply:
  - a. the work is a maintenance dredging project as provided for in the Act; or
  - b. the time for completion has been extended to a specified date more than three years, but less than five years, from the date of issuance. If this Order is intended to be valid for more than three years, the extension date and the special circumstances warranting the extended time period are set forth as a special condition in this Order.
5. This Order may be extended by the issuing authority for one or more periods of up to three years each upon application to the issuing authority at least 30 days prior to the expiration date of the Order.
6. If this Order constitutes an Amended Order of Conditions, this Amended Order of Conditions does not extend the issuance date of the original Final Order of Conditions and the Order will expire on August 19 2024 unless extended in writing by the Department.
7. Any fill used in connection with this project shall be clean fill. Any fill shall contain no trash, refuse, rubbish, or debris, including but not limited to lumber, bricks, plaster, wire, lath, paper, cardboard, pipe, tires, ashes, refrigerators, motor vehicles, or parts of any of the foregoing.
8. This Order is not final until all administrative appeal periods from this Order have elapsed, or if such an appeal has been taken, until all proceedings before the Department have been completed.

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*Kathryn M. Herrick*  
 Kathryn M. Herrick, Town Clerk



**Massachusetts Department of Environmental Protection  
Bureau of Resource Protection - Wetlands**

**WPA Form 5 – Order of Conditions**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

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**C. General Conditions Under Massachusetts Wetlands Protection Act (cont.)**

9. No work shall be undertaken until the Order has become final and then has been recorded in the Registry of Deeds or the Land Court for the district in which the land is located, within the chain of title of the affected property. In the case of recorded land, the Final Order shall also be noted in the Registry's Grantor Index under the name of the owner of the land upon which the proposed work is to be done. In the case of the registered land, the Final Order shall also be noted on the Land Court Certificate of Title of the owner of the land upon which the proposed work is done. The recording information shall be submitted to the Conservation Commission on the form at the end of this Order, which form must be stamped by the Registry of Deeds, prior to the commencement of work.
10. A sign shall be displayed at the site not less than two square feet or more than three square feet in size bearing the words,
 

"Massachusetts Department of Environmental Protection" [or, "MassDEP"]  
"File Number            208-1229            "
11. Where the Department of Environmental Protection is requested to issue a Superseding Order, the Conservation Commission shall be a party to all agency proceedings and hearings before MassDEP.
12. Upon completion of the work described herein, the applicant shall submit a Request for Certificate of Compliance (WPA Form 8A) to the Conservation Commission.
13. The work shall conform to the plans and special conditions referenced in this order.
14. Any change to the plans identified in Condition #13 above shall require the applicant to inquire of the Conservation Commission in writing whether the change is significant enough to require the filing of a new Notice of Intent.
15. The Agent or members of the Conservation Commission and the Department of Environmental Protection shall have the right to enter and inspect the area subject to this Order at reasonable hours to evaluate compliance with the conditions stated in this Order, and may require the submittal of any data deemed necessary by the Conservation Commission or Department for that evaluation.
16. This Order of Conditions shall apply to any successor in interest or successor in control of the property subject to this Order and to any contractor or other person performing work conditioned by this Order.
17. Prior to the start of work, and if the project involves work adjacent to a Bordering Vegetated Wetland, the boundary of the wetland in the vicinity of the proposed work area shall be marked by wooden stakes or flagging. Once in place, the wetland boundary markers shall be maintained until a Certificate of Compliance has been issued by the Conservation Commission.

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Massachusetts Department of Environmental Protection  
Bureau of Resource Protection - Wetlands  
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**C. General Conditions Under Massachusetts Wetlands Protection Act (cont.)**

18. All sedimentation barriers shall be maintained in good repair until all disturbed areas have been fully stabilized with vegetation or other means. At no time shall sediments be deposited in a wetland or water body. During construction, the applicant or his/her designee shall inspect the erosion controls on a daily basis and shall remove accumulated sediments as needed. The applicant shall immediately control any erosion problems that occur at the site and shall also immediately notify the Conservation Commission, which reserves the right to require additional erosion and/or damage prevention controls it may deem necessary. Sedimentation barriers shall serve as the limit of work unless another limit of work line has been approved by this Order.

**NOTICE OF STORMWATER CONTROL AND MAINTENANCE REQUIREMENTS**


19. The work associated with this Order (the "Project") is (1)  is not (2)  subject to the Massachusetts Stormwater Standards. If the work is subject to the Stormwater Standards, then the project is subject to the following conditions:

a) All work, including site preparation, land disturbance, construction and redevelopment, shall be implemented in accordance with the construction period pollution prevention and erosion and sedimentation control plan and, if applicable, the Stormwater Pollution Prevention Plan required by the National Pollution Discharge Elimination System Construction General Permit as required by Stormwater Condition 8. Construction period erosion, sedimentation and pollution control measures and best management practices (BMPs) shall remain in place until the site is fully stabilized.

b) No stormwater runoff may be discharged to the post-construction stormwater BMPs unless and until a Registered Professional Engineer provides a Certification that:

- i. all construction period BMPs have been removed or will be removed by a date certain specified in the Certification. For any construction period BMPs intended to be converted to post construction operation for stormwater attenuation, recharge, and/or treatment, the conversion is allowed by the MassDEP Stormwater Handbook BMP specifications and that the BMP has been properly cleaned or prepared for post construction operation, including removal of all construction period sediment trapped in inlet and outlet control structures;
- ii. as-built final construction BMP plans are included, signed and stamped by a Registered Professional Engineer, certifying the site is fully stabilized;
- iii. any illicit discharges to the stormwater management system have been removed, as per the requirements of Stormwater Standard 10;
- iv. all post-construction stormwater BMPs are installed in accordance with the plans (including all planting plans) approved by the issuing authority, and have been inspected to ensure that they are not damaged and that they are in proper working condition;
- v. any vegetation associated with post-construction BMPs is suitably established to withstand erosion.

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Massachusetts Department of Environmental Protection  
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### C. General Conditions Under Massachusetts Wetlands Protection Act (cont.)

c) The landowner is responsible for BMP maintenance until the issuing authority is notified that another party has legally assumed responsibility for BMP maintenance. Prior to requesting a Certificate of Compliance, or Partial Certificate of Compliance, the responsible party (defined in General Condition 18(e)) shall execute and submit to the issuing authority an Operation and Maintenance Compliance Statement ("O&M Statement") for the Stormwater BMPs identifying the party responsible for implementing the stormwater BMP Operation and Maintenance Plan ("O&M Plan") and certifying the following: *i.*) the O&M Plan is complete and will be implemented upon receipt of the Certificate of Compliance, and *ii.*) the future responsible parties shall be notified in writing of their ongoing legal responsibility to operate and maintain the stormwater management BMPs and implement the Stormwater Pollution Prevention Plan.

d) Post-construction pollution prevention and source control shall be implemented in accordance with the long-term pollution prevention plan section of the approved Stormwater Report and, if applicable, the Stormwater Pollution Prevention Plan required by the National Pollution Discharge Elimination System Multi-Sector General Permit.

e) Unless and until another party accepts responsibility, the landowner, or owner of any drainage easement, assumes responsibility for maintaining each BMP. To overcome this presumption, the landowner of the property must submit to the issuing authority a legally binding agreement of record, acceptable to the issuing authority, evidencing that another entity has accepted responsibility for maintaining the BMP, and that the proposed responsible party shall be treated as a permittee for purposes of implementing the requirements of Conditions 18(f) through 18(k) with respect to that BMP. Any failure of the proposed responsible party to implement the requirements of Conditions 18(f) through 18(k) with respect to that BMP shall be a violation of the Order of Conditions or Certificate of Compliance. In the case of stormwater BMPs that are serving more than one lot, the legally binding agreement shall also identify the lots that will be serviced by the stormwater BMPs. A plan and easement deed that grants the responsible party access to perform the required operation and maintenance must be submitted along with the legally binding agreement.

f) The responsible party shall operate and maintain all stormwater BMPs in accordance with the design plans, the O&M Plan, and the requirements of the Massachusetts Stormwater Handbook.

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Kathryn M. Herrick, Town Clerk



**Massachusetts Department of Environmental Protection  
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**C. General Conditions Under Massachusetts Wetlands Protection Act (cont.)**

- g) The responsible party shall:
  1. Maintain an operation and maintenance log for the last three (3) consecutive calendar years of inspections, repairs, maintenance and/or replacement of the stormwater management system or any part thereof, and disposal (for disposal the log shall indicate the type of material and the disposal location);
  2. Make the maintenance log available to MassDEP and the Conservation Commission ("Commission") upon request; and
  3. Allow members and agents of the MassDEP and the Commission to enter and inspect the site to evaluate and ensure that the responsible party is in compliance with the requirements for each BMP established in the O&M Plan approved by the issuing authority.
- h) All sediment or other contaminants removed from stormwater BMPs shall be disposed of in accordance with all applicable federal, state, and local laws and regulations.
- i) Illicit discharges to the stormwater management system as defined in 310 CMR 10.04 are prohibited.
- j) The stormwater management system approved in the Order of Conditions shall not be changed without the prior written approval of the issuing authority.
- k) Areas designated as qualifying pervious areas for the purpose of the Low Impact Site Design Credit (as defined in the MassDEP Stormwater Handbook, Volume 3, Chapter 1, Low Impact Development Site Design Credits) shall not be altered without the prior written approval of the issuing authority.
- l) Access for maintenance, repair, and/or replacement of BMPs shall not be withheld. Any fencing constructed around stormwater BMPs shall include access gates and shall be at least six inches above grade to allow for wildlife passage.

Special Conditions (if you need more space for additional conditions, please attach a text document):

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*Kathryn M. Herrick*  
Kathryn M. Herrick, Town Clerk



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**D. Findings Under Municipal Wetlands Bylaw or Ordinance**

1. Is a municipal wetlands bylaw or ordinance applicable?  Yes  No
2. The Lunenburg hereby finds (check one that applies):  
 Conservation Commission

- a.  that the proposed work cannot be conditioned to meet the standards set forth in a municipal ordinance or bylaw, specifically:

1. Municipal Ordinance or Bylaw \_\_\_\_\_ 2. Citation \_\_\_\_\_

Therefore, work on this project may not go forward unless and until a revised Notice of Intent is submitted which provides measures which are adequate to meet these standards, and a final Order of Conditions is issued.

- b.  that the following additional conditions are necessary to comply with a municipal ordinance or bylaw:

Lunenburg Protective Wetlands By-Law Chapter 229 All previous attachments  
 1. Municipal Ordinance or Bylaw \_\_\_\_\_

3. The Commission orders that all work shall be performed in accordance with the following conditions and with the Notice of Intent referenced above. To the extent that the following conditions modify or differ from the plans, specifications, or other proposals submitted with the Notice of Intent, the conditions shall control.

The special conditions relating to municipal ordinance or bylaw are as follows (if you need more space for additional conditions, attach a text document):

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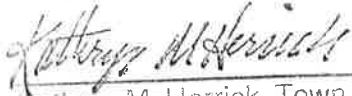
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A TRUE COPY ATTEST  
  
 Kathryn M. Herrick, Town Clerk



**Massachusetts Department of Environmental Protection**  
**Bureau of Resource Protection - Wetlands**  
**WPA Form 5 – Order of Conditions**  
 Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:  
 208-1229  
 MassDEP File #

eDEP Transaction #  
 Lunenburg  
 City/Town

**E. Signatures**

This Order is valid for three years, unless otherwise specified as a special condition pursuant to General Conditions #4, from the date of issuance.

8/19/21  
 1. Date of Issuance

Please indicate the number of members who will sign this form.  
 This Order must be signed by a majority of the Conservation Commission.

4  
 2. Number of Signers

The Order must be mailed by certified mail (return receipt requested) or hand delivered to the applicant. A copy also must be mailed or hand delivered at the same time to the appropriate Department of Environmental Protection Regional Office, if not filing electronically, and the property owner, if different from applicant.

Signatures:

*Michael Marante*  
*Rory Adams*  
*Bob Kease*  
*[Signature]*

by hand delivery on

by certified mail, return receipt requested, on

8/19/21  
 Date

Date

**F. Appeals**

The applicant, the owner, any person aggrieved by this Order, any owner of land abutting the land subject to this Order, or any ten residents of the city or town in which such land is located, are hereby notified of their right to request the appropriate MassDEP Regional Office to issue a Superseding Order of Conditions. The request must be made by certified mail or hand delivery to the Department, with the appropriate filing fee and a completed Request of Departmental Action Fee Transmittal Form, as provided in 310 CMR 10.03(7) within ten business days from the date of issuance of this Order. A copy of the request shall at the same time be sent by certified mail or hand delivery to the Conservation Commission and to the applicant, if he/she is not the appellant.

Any appellants seeking to appeal the Department's Superseding Order associated with this appeal will be required to demonstrate prior participation in the review of this project. Previous participation in the permit proceeding means the submission of written information to the Conservation Commission prior to the close of the public hearing, requesting a Superseding Order, or providing written information to the Department prior to issuance of a Superseding Order.

The request shall state clearly and concisely the objections to the Order which is being appealed and how the Order does not contribute to the protection of the interests identified in the Massachusetts Wetlands Protection Act (M.G.L. c. 131, § 40), and is inconsistent with the wetlands regulations (310 CMR 10.00). To the extent that the Order is based on a municipal ordinance or bylaw, and not on the Massachusetts Wetlands Protection Act or regulations, the Department has no appellate jurisdiction.

A TRUE COPY ATTEST

*Kathryn M. Herrick*  
 Kathryn M. Herrick, Town Clerk

**Town of Lunenburg Conservation Commission  
Special conditions under rule of By-Law**

**GENERAL CONDITIONS**

Please review the General Conditions on the preceding page, particularly condition #1.

20. All work must be in compliance with the Lunenburg Wetland Protection Bylaw and Regulations. The work shall conform with the Notice of Intent by Town of Lunenburg with a site plan entitled "Flat Hill Road Bridge" by VHB with a final revision date of May, 2021.
21. This Order of Conditions shall apply to any successor(s) in interest or successor(s) in control and shall survive the issuance of the Certificate of Compliance. Within ten calendar days inclusive of the transfer of ownership of the subject parcel, in whole or in part, including lots or buildings conveyed under individual deeds, the Conservation Commission shall be notified in writing by the seller of the name and address of the new owner.

Within ten (10) calendar days inclusive of such transfer, a written, notarized affidavit shall be filed with the Conservation Commission by the seller, stating that the new owner(s)

- has read and understands the Order of Conditions
- understands all terms applicable to the project site
- intends to comply with all provisions of the Order of Conditions
- understands that any work within 100 feet of wetlands or within 200 feet of perennial streams requires a permit from the Conservation Commission
- is aware that no dumping of yard waste, brush, or other materials is allowed in wetlands.

This affidavit shall include a plan of the lot indicating the wetland boundary, building(s), and any other features. All current and future new tenants shall be provided with a copy of this Order of Conditions and a signed affidavit acknowledging receipt shall be provided to the Lunenburg Conservation Commission.

22. Members and agents of the Conservation Commission shall have the right to enter and inspect the premises to evaluate compliance with these conditions and to require submittal of any data deemed necessary by the Conservation Commission for that evaluation.
23. The site engineer or contractor shall have a copy of this Order of Conditions at the construction site and available for inspection during all phases of construction.
24. No equipment is to enter the wetlands at any time during site preparation, construction, or during any other phase of the project, and no materials are to be placed in or allowed to enter the wetland, unless specifically approved by the Commission in this Order of Conditions.
25. Any change in the plans approved under this Order of Conditions including those due to review by other boards, or resulting from the aforementioned conditions must be submitted to the Conservation Commission in writing for approval prior to implementation. The Commission will then decide whether the change is substantial enough to require a new Notice of Intent filing or a request for an amendment to this Order of Conditions. Any errors found in the plans or information submitted by the applicant shall be considered as changes
26. Upon completion of this project [or within one year of the issuance of an occupancy permit] the owner or his designee shall submit the following to the Conservation Commission to receive a Certificate of Compliance per condition #12:
  - a) A letter from the owner or his designee requesting a Certificate of Compliance
  - b) A written statement from a registered professional engineer of the Commonwealth of Massachusetts certifying that the work has been completed in compliance with this Order of Conditions and the approved plans referenced herein (or approved revisions). Any discrepancies shall be noted.
  - c) An as-built topographic plan signed and stamped by a registered professional land surveyor of the Commonwealth of Massachusetts, for the public record. This plan will include as-built elevations of all drainage ways constructed within 100 feet of any wetland, distances to all structures and elevations within 100 feet of wetlands.

27. The following special conditions shall extend beyond the issuance of a Certificate of Compliance, in perpetuity, and shall be referred to in all future deeds to this property: **A TRUE COPY ATTEST**

28. No footing or roof drain with an aboveground or subsurface discharge nor any garage floor drain or any deck or addition shall be installed without prior written permission of the Conservation Commission.
29. No proposed earthen embankment in the buffer zone shall have a slope steeper than 2:1 (horizontal : vertical) without prior written approval of the Commission.

**PRIOR TO CONSTRUCTION**

30. Prior to any work within 100 feet of wetlands or within a designated 200-foot Outer Riparian zone, erosion control devices must be inspected and approved by the Conservation Commission or its agent. In addition, the owner or his designee shall meet with an agent of the Conservation Commission at the site to review the proposed work and measures designed to mitigate any impact on the wetlands and to ensure that all of the Conditions of this Order are understood.
31. Prior to any work on site, the wetland boundaries shall be clearly marked with flags and shall be confirmed by the Conservation Commission or its agent. Such markers shall be maintained until all construction activity is completed.
32. Prior to the commencement of any work on site, the owner or his designee shall submit to the Conservation Commission for approval a detailed Sequence of Construction with a timetable and details, including the construction of compensation and detention areas and revegetation, to be completed before other work begins on site. The owner or his designee shall also include the name(s) and telephone number(s) of the person(s) responsible on site for compliance with this Order of Conditions.  
As discussed at the public hearing, the proposed construction sequence is as follows:
33. The owner or his designee shall report in writing to the Conservation Commission prior to the commencement of construction, every 180 days during construction and for as long thereafter as the ground remains unstabilized, as well as upon completion of the project. These reports shall include an update of the status of the erosion controls, what work within 100 feet of wetlands or within 200 feet of perennial streams has been completed to date and what work is proposed for the next two weeks. This will update the construction sequence.

**SEDIMENT AND EROSION CONTROLS**

34. Accepted and usual methods for controlling sedimentation and erosion (e.g. silt fencing backed by staked hay bales, etc.) shall be used during all phases of construction to prevent material from entering wetlands and surface waters. There shall be no erosion into wetlands and surface waters during any phase of construction or after completion of the project. Erosion controls shall be placed according to the plan referenced in condition #12. b). topographically above, or 30 feet from the wetland boundary, whichever is further, prior to the inception of any activity on site. Erosion control devices may be placed within wetlands and closer than 30 feet from the wetland boundary only where the Commission is allowing wetland disturbance and replication, and only if so indicated on referenced plan. Erosion control devices shall be installed in accordance with practices set forth by the U.S. Soil Conservation Service.
35. If soils are to be disturbed for longer than 30 days, a temporary cover of rye or other grass shall be established to prevent erosion. Once final grading is completed, loaming and seeding of each area shall be completed promptly. Vegetative cover, either temporary or permanent shall be established prior to winter. If the season is not appropriate for plant growth, exposed soils shall be stabilized with jute netting, staked mulches, or other U.S. Soil Conservation Service accepted methods.
36. The limit of work shall be the erosion control devices beyond which no work may occur. The Conservation Commission reserves the right to require additional erosion control and storm damage prevention measures in the future should they become necessary. Erosion control devices shall be inspected regularly and after any major storm event. Any entrapped silt or other materials shall be removed to an area outside the 100-foot buffer zone. Damaged or non-functioning siltation fencing, hay bales and other devices shall be replaced as necessary.
37. The owner or his designee shall report any problems with erosion control immediately to the Conservation Commission office at (978) 582-4147. Ext 431
38. Erosion control devices and wetland flags shall remain in place until all disturbed surfaces have been stabilized with final vegetative cover and written permission has been received from the Conservation Commission. Siltation fencing and hay bale stakes shall be removed when such vegetation is established and on inspection by the Conservation Commission.

**SOIL STOCKPILES AND FILL STORAGE**

39. Stockpiled earth and other materials shall be piled outside the 100-foot buffer zone and shall be stabilized to prevent erosion into wetland resource areas. In the case of Riverfront Resource Areas, stockpiled earth and other materials shall be piled outside the 200-foot Outer Riparian zone.

A TRUE COPY ATTEST  
*Kathryn M. Herrick*  
Kathryn M. Herrick, Town Clerk

**WELL CONSTRUCTION/DEWATERING**

40. During well development or if any dewatering is required within 100 feet of wetlands, pumpage shall be directed into an on site depression designed to settle out sediment and to direct flows away from wetlands so as to prevent siltation of resource areas from fine materials discharged from the well. Prior to any implementation, the Conservation Commission agent must approve this system. All well construction waste materials generated during construction shall be removed.

**LAND SUBJECT TO FLOODING**

41. **NOT APPLICABLE**

**STORMWATER MANAGEMENT**

42. **NOT APPLICABLE**

**OTHER CONDITIONS**

43. Equipment fuel storage and refueling and lubrication operations shall be situated in an upland area at least 100 feet from any wetland resource area.

A TRUE COPY ATTEST  
*Kathryn M. Herrick*  
Kathryn M. Herrick, Town Clerk

ATTEST: NO. WORC. REGISTRY OF DEEDS  
KATHLEEN REYNOLDS DAIGNEAULT, REGISTER



**Massachusetts Department of Environmental Protection**  
**Bureau of Resource Protection - Wetlands**  
**WPA Form 5 – Order of Conditions**  
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:  
**208-1229**  
MassDEP File #

eDEP Transaction #  
**Lunenburg**  
City/Town

**G. Recording Information**

Prior to commencement of work, this Order of Conditions must be recorded in the Registry of Deeds or the Land Court for the district in which the land is located, within the chain of title of the affected property. In the case of recorded land, the Final Order shall also be noted in the Registry's Grantor Index under the name of the owner of the land subject to the Order. In the case of registered land, this Order shall also be noted on the Land Court Certificate of Title of the owner of the land subject to the Order of Conditions. The recording information on this page shall be submitted to the Conservation Commission listed below.

Conservation Commission

Detach on dotted line, have stamped by the Registry of Deeds and submit to the Conservation Commission.

To:

Conservation Commission

Please be advised that the Order of Conditions for the Project at:

Project Location

MassDEP File Number

Has been recorded at the Registry of Deeds of:

County

Book

Page

for:

Property Owner

and has been noted in the chain of title of the affected property in:

Book

Page

In accordance with the Order of Conditions issued on:

Date

If recorded land, the instrument number identifying this transaction is:

Instrument Number

If registered land, the document number identifying this transaction is:

Document Number

Signature of Applicant

A TRUE COPY ATTEST  
*Kathryn M. Herrick*  
Kathryn M. Herrick, Town Clerk

# **ATTACHMENT F**



**WPA Form 7 – Extension Permit for Orders of Conditions**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

**A. General Information**

**Important:**  
When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



1. Applicant:  
 William Bernard  
 Name  
 520 Chase Road  
 Mailing Address  
 Lunenburg MA 01462  
 City/Town State Zip Code

2. Property Owner (if different):  
 Town of Lunenburg  
 Name  
 17 Main Street  
 Mailing Address  
 Lunenburg MA 01462  
 City/Town State Zip Code

**B. Authorization**

The Order of Conditions (or Extension Permit) issued to the applicant or property owner listed above on:

12/17/2025 Issued by: Lunenburg  
 Date Conservation Commission

for work at: Flat Hill Road adjacent to 122-0054  
 Street Address Assessor's Map/Plat Number Parcel/Lot Number

recorded at the Registry of Deeds for:

Worcester Northern 11182 98  
 County Book Page

Certificate (if registered land)  
 is hereby extended until: 12/17/2028  
 Date Date the Order was last extended (if applicable)

This date can be no more than 3 years from the expiration date of the Order of Conditions or the latest extension. Only unexpired Orders of Conditions or Extension may be extended.

This Extension Permit must be signed by a majority of the Conservation Commission and a copy sent to the applicant and the appropriate DEP Regional Office (<https://www.mass.gov/service-details/massdep-regional-offices-by-community>).



Massachusetts Department of Environmental Protection  
Bureau of Resource Protection - Wetlands

**WPA Form 7 – Extension Permit for Orders of Conditions**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

DEP File Number:

208-1229

Provided by DEP

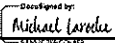
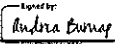


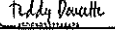

**B. Authorization (cont.)**

12/17/2025

Issue Date (mm/dd/yyyy)

CEXT-25-2

Signatures:

Signature		Printed Name	Michael Laroche
Signature		Printed Name	Andrea Burnap
Signature		Printed Name	Richard Bursch
Signature		Printed Name	Mary Wilson
Signature		Printed Name	Teddy Doucette
Signature		Printed Name	Jennifer Pewtherer
Signature		Printed Name	
Signature		Printed Name	



**C. Recording Confirmation**

The applicant shall record this document in accordance with General Condition 8 of the Order of Conditions (see below), complete the form attached to this Extension Permit, have it stamped by the Registry of Deeds, and return it to the Conservation Commission.

Note: General Condition 8 of the Order of Conditions requires the applicant, prior to commencement of work, to record the final Order (or in this case, the Extension Permit for the Order of Conditions) in the Registry of Deeds or the Land Court for the district in which the land is located, within the chain of title of the affected property. In the case of recorded land, it shall be noted in the Registry's Granter Index under the name of the owner of the land upon which the proposed work is to be done. In the case of registered land, it shall also be noted on the Land Court Certificate of Title of the owner of the land upon which the proposed work is done.

Detach this page and submit it to the Conservation Commission prior to the expiration of the Order of Conditions subject to this Extension Permit.

To:

Lunenburg  
Conservation Commission

Please be advised that the Extension Permit to the Order of Conditions for the project at:

Flat Hill Road Bridge adjacent to 122-0054  
Project Location

208-1229  
DEP File Number

has been recorded at the Registry of Deeds of:

Worcester North  
County

for:

Town of Lunenburg  
Property Owner

and has been noted in the chain of title of the affected property in accordance with General Condition 8 of the original Order of Conditions on:

\_\_\_\_\_  
Date

\_\_\_\_\_  
Book

\_\_\_\_\_  
Page

If recorded land the instrument number which identifies this transaction is:

\_\_\_\_\_  
Instrument Number

If registered land, the document number which identifies this transaction is:

\_\_\_\_\_  
Document Number

\_\_\_\_\_  
Signature of Applicant

# **ATTACHMENT G**



**THE COMMONWEALTH OF MASSACHUSETTS  
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT  
DEPARTMENT OF LABOR STANDARDS  
Prevailing Wage Rates**

MAURA HEALEY  
Governor

KIM DRISCOLL  
Lt. Governor

As determined by the Director under the provisions of the  
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

LAUREN JONES  
Secretary

MICHAEL FLANAGAN  
Director

**Awarding Authority:** Lunenburg - Department of Public Works **City/Town:** LUNENBURG

**Contract Number:**

**Description of Work:** Replacement of existing corrugated metal pipe culvert with a precast concrete box culvert with concrete wingwalls. Project includes control of water, guardrail, and pavement installation.

**Job Location:** 895 Flat Hill Road, Lunenburg, MA 01462

**Information about Prevailing Wage Schedules for Awarding Authorities and Contractors**

- The wage rates will remain in effect for the duration of the project, except in the case of multi-year public construction projects. For construction projects lasting longer than one year, awarding authorities must request an updated wage schedule no later than two weeks before the anniversary of the date the contract was executed by the awarding authority and the general contractor. For multi-year CM AT RISK projects, the awarding authority must request an annual update no later than two weeks before the anniversary date, determined as the earlier of: (a) the execution date of the GMP Amendment, or (b) the execution date of the first amendment to permit procurement of construction services. The updated wage schedule must be provided to all contractors, including general and sub-contractors, working on the construction project.
- This annual update requirement is generally not applicable to 27F “rental of equipment” contracts. For such contracts, the prevailing wage rates issued by DLS shall remain in effect for the duration of the contract term. However, if the prevailing wage rate sheet issued does not contain wage rates for each year covered by the contract term, the Awarding Authority must request updated rate sheets from DLS and provide them to the contractor to ensure the correct rates are being paid throughout the duration of the contract. Additionally, if an Awarding Authority exercises an option to renew or extend the contract term, they must request updated rate sheets from DLS and provide them to the contractor.
- This wage schedule applies only to the specific project referenced at the top of this page and uniquely identified by the “Wage Request Number” on all pages of this schedule.
- An Awarding Authority must request an updated wage schedule if it has not opened bids or selected a contractor within 90 days of the date of issuance of the wage schedule. For CM AT RISK projects (bid pursuant to G.L. c.149A), the earlier of: (a) the execution date of the GMP Amendment, or (b) the bid for the first construction scope of work must be within 90-days of the wage schedule issuance date.
- The wage schedule shall be incorporated in any advertisement or call for bids for the project as required by M.G.L. c. 149, § 27. The wage schedule shall be made a part of the contract awarded for the project. The wage schedule must be posted in a conspicuous place at the work site for the life of the project in accordance with M.G.L. c. 149 § 27. The wages listed on the wage schedule must be paid to employees performing construction work on the project whether they are employed by the prime contractor, a filed sub-bidder, or a sub-contractor.
- Apprentices working on the project are required to be registered with the Massachusetts Division of Apprentice Standards (DAS). Apprentices must keep their apprentice identification card on their persons during all work hours on the project. An apprentice registered with DAS may be paid the lower apprentice wage rate at the applicable step as provided on the prevailing wage schedule. **Any apprentice not registered with DAS regardless of whether they are registered with another federal, state, local, or private agency must be paid the journeyworker’s rate.**
- Every contractor or subcontractor working on the construction project must submit weekly payroll reports and a Statement of Compliance directly to the awarding authority by mail or email and keep them on file for three years. Each weekly payroll report must contain: the employee’s name, address, occupational classification, hours worked, and wages paid. Do not submit weekly payroll reports to DLS. For a sample payroll reporting form go to <http://www.mass.gov/dols/pw>.
- Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at (617) 626-6953.
- Contractors must obtain the wage schedules from awarding authorities. Failure of a contractor or subcontractor to pay the prevailing wage rates listed on the wage schedule to all employees who perform construction work on the project is a violation of the law and subjects the contractor or subcontractor to civil and criminal penalties.
- Employees not receiving the prevailing wage rate set forth on the wage schedule may file a complaint with the Fair Labor Division of the office of the Attorney General at (617) 727-3465.

**Construction**

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
(2 AXLE) DRIVER - EQUIPMENT	1/1/2026	\$40.95	\$16.17	\$21.78	\$0.00	\$0.00	\$78.90
TEAMSTERS JOINT COUNCIL NO. 10	6/1/2026	\$41.95	\$16.17	\$21.78	\$0.00	\$0.00	\$79.90
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	12/1/2026	\$41.95	\$16.17	\$23.52	\$0.00	\$0.00	\$81.64
	1/1/2027	\$41.95	\$16.77	\$23.52	\$0.00	\$0.00	\$82.24
(3 AXLE) DRIVER - EQUIPMENT	1/1/2026	\$41.02	\$16.17	\$21.78	\$0.00	\$0.00	\$78.97
TEAMSTERS JOINT COUNCIL NO. 10	6/1/2026	\$42.02	\$16.17	\$21.78	\$0.00	\$0.00	\$79.97
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	12/1/2026	\$42.02	\$16.17	\$23.52	\$0.00	\$0.00	\$81.71
	1/1/2027	\$42.02	\$16.77	\$23.52	\$0.00	\$0.00	\$82.31
(4 & 5 AXLE) DRIVER - EQUIPMENT	1/1/2026	\$41.14	\$16.17	\$21.78	\$0.00	\$0.00	\$79.09
TEAMSTERS JOINT COUNCIL NO. 10	6/1/2026	\$42.14	\$16.17	\$21.78	\$0.00	\$0.00	\$80.09
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	12/1/2026	\$42.14	\$16.17	\$23.52	\$0.00	\$0.00	\$81.83
	1/1/2027	\$42.14	\$16.77	\$23.52	\$0.00	\$0.00	\$82.43
ADS/SUBMERSIBLE PILOT	8/1/2024	\$117.16	\$10.08	\$11.62	\$12.67	\$0.00	\$151.53
PILE DRIVER LOCAL 56							
PILE DRIVER LOCAL 56 (ZONE 2)							
For apprentice rates see "Apprentice- PILE DRIVER"							
AIR TRACK OPERATOR	12/1/2025	\$41.22	\$10.65	\$9.75	\$9.11	\$0.00	\$70.73
LABORERS	6/1/2026	\$42.66	\$10.65	\$9.75	\$9.11	\$0.00	\$72.17
LABORERS - ZONE 2	12/1/2026	\$44.10	\$10.65	\$9.75	\$9.11	\$0.00	\$73.61
	6/1/2027	\$45.55	\$10.65	\$9.75	\$9.11	\$0.00	\$75.06
	12/1/2027	\$47.00	\$10.65	\$9.75	\$9.11	\$0.00	\$76.51
	6/1/2028	\$48.50	\$10.65	\$9.75	\$9.11	\$0.00	\$78.01
	12/1/2028	\$50.00	\$10.65	\$9.75	\$9.11	\$0.00	\$79.51
For apprentice rates see "Apprentice- LABORER"							
AIR TRACK OPERATOR (HEAVY & HIGHWAY)	12/1/2025	\$41.22	\$10.65	\$9.75	\$9.21	\$0.00	\$70.83
LABORERS	6/1/2026	\$42.66	\$10.65	\$9.75	\$9.21	\$0.00	\$72.27
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	12/1/2026	\$44.10	\$10.65	\$9.75	\$9.21	\$0.00	\$73.71
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
ASBESTOS WORKER (PIPES & TANKS)	12/1/2025	\$44.80	\$14.50	\$4.30	\$6.75	\$0.00	\$70.35
HEAT & FROST INSULATORS LOCAL 6							
HEAT & FROST INSULATORS LOCAL 6 (WORCESTER)							
ASPHALT RAKER	12/1/2025	\$40.72	\$10.65	\$9.75	\$9.11	\$0.00	\$70.23
LABORERS	6/1/2026	\$42.16	\$10.65	\$9.75	\$9.11	\$0.00	\$71.67
LABORERS - ZONE 2	12/1/2026	\$43.60	\$10.65	\$9.75	\$9.11	\$0.00	\$73.11
	6/1/2027	\$45.05	\$10.65	\$9.75	\$9.11	\$0.00	\$74.56
	12/1/2027	\$46.50	\$10.65	\$9.75	\$9.11	\$0.00	\$76.01
	6/1/2028	\$48.00	\$10.65	\$9.75	\$9.11	\$0.00	\$77.51
	12/1/2028	\$49.50	\$10.65	\$9.75	\$9.11	\$0.00	\$79.01
For apprentice rates see "Apprentice- LABORER"							
ASPHALT RAKER (HEAVY & HIGHWAY)	12/1/2025	\$40.72	\$10.65	\$9.75	\$9.21	\$0.00	\$70.33
LABORERS	6/1/2026	\$42.16	\$10.65	\$9.75	\$9.21	\$0.00	\$71.77
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	12/1/2026	\$43.60	\$10.65	\$9.75	\$9.21	\$0.00	\$73.21

**Construction**

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
ASPHALT/CONCRETE/CRUSHER PLANT-ON SITE	12/1/2025	\$58.68	\$16.55	\$13.35	\$3.25	\$0.00	\$91.83
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$59.98	\$16.55	\$13.35	\$3.25	\$0.00	\$93.13
OPERATING ENGINEERS LOCAL 4	12/1/2026	\$61.43	\$16.55	\$13.35	\$3.25	\$0.00	\$94.58
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
BACKHOE/FRONT-END LOADER	12/1/2025	\$58.68	\$16.55	\$13.35	\$3.25	\$0.00	\$91.83
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$59.98	\$16.55	\$13.35	\$3.25	\$0.00	\$93.13
OPERATING ENGINEERS LOCAL 4	12/1/2026	\$61.43	\$16.55	\$13.35	\$3.25	\$0.00	\$94.58
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
BARCO-TYPE JUMPING TAMPER	12/1/2025	\$40.72	\$10.65	\$9.75	\$9.11	\$0.00	\$70.23
LABORERS	6/1/2026	\$42.16	\$10.65	\$9.75	\$9.11	\$0.00	\$71.67
LABORERS - ZONE 2	12/1/2026	\$43.60	\$10.65	\$9.75	\$9.11	\$0.00	\$73.11
	6/1/2027	\$45.05	\$10.65	\$9.75	\$9.11	\$0.00	\$74.56
	12/1/2027	\$46.50	\$10.65	\$9.75	\$9.11	\$0.00	\$76.01
	6/1/2028	\$48.00	\$10.65	\$9.75	\$9.11	\$0.00	\$77.51
	12/1/2028	\$49.50	\$10.65	\$9.75	\$9.11	\$0.00	\$79.01
For apprentice rates see "Apprentice- LABORER"							
BLOCK PAVER, RAMMER / CURB SETTER	12/1/2025	\$41.22	\$10.65	\$9.75	\$9.11	\$0.00	\$70.73
LABORERS	6/1/2026	\$42.66	\$10.65	\$9.75	\$9.11	\$0.00	\$72.17
LABORERS - ZONE 2	12/1/2026	\$44.10	\$10.65	\$9.75	\$9.11	\$0.00	\$73.61
	6/1/2027	\$45.55	\$10.65	\$9.75	\$9.11	\$0.00	\$75.06
	12/1/2027	\$47.00	\$10.65	\$9.75	\$9.11	\$0.00	\$76.51
	6/1/2028	\$48.50	\$10.65	\$9.75	\$9.11	\$0.00	\$78.01
	12/1/2028	\$50.00	\$10.65	\$9.75	\$9.11	\$0.00	\$79.51
For apprentice rates see "Apprentice- LABORER"							
BLOCK PAVER, RAMMER / CURB SETTER (HEAVY & HIGHWAY)	12/1/2025	\$41.22	\$10.65	\$9.75	\$9.21	\$0.00	\$70.83
LABORERS	6/1/2026	\$42.66	\$10.65	\$9.75	\$9.21	\$0.00	\$72.27
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	12/1/2026	\$44.10	\$10.65	\$9.75	\$9.21	\$0.00	\$73.71
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
BOILER MAKER	1/1/2024	\$48.12	\$7.07	\$14.60	\$6.00	\$0.00	\$75.79
BOILERMAKERS LOCAL 29							
BOILERMAKERS LOCAL 29							

Apprentice: BOILER MAKER							
Effective Date: 1/1/2024							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	65.00	\$31.28	\$7.07	\$9.32	\$3.90	\$0.00	\$51.57
2	65.00	\$31.28	\$7.07	\$9.32	\$3.90	\$0.00	\$51.57
3	70.00	\$33.68	\$7.07	\$10.03	\$4.20	\$0.00	\$54.98
4	75.00	\$36.09	\$7.07	\$10.74	\$4.50	\$0.00	\$58.40
5	80.00	\$38.50	\$7.07	\$11.45	\$4.80	\$0.00	\$61.82
6	85.00	\$40.90	\$7.07	\$12.18	\$5.10	\$0.00	\$65.25

**Construction**

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
<b>Apprentice: BOILER MAKER</b>							
<b>Effective Date: 1/1/2024</b>							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
7	90.00	\$43.31	\$7.07	\$12.88	\$5.40	\$0.00	\$68.66
8	95.00	\$45.71	\$7.07	\$13.62	\$5.70	\$0.00	\$72.10

**Apprentice to Journeyworker Ratio: 1:4**

BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING)	2/1/2026	\$65.81	\$12.84	\$15.57	\$7.33	\$0.00	\$101.55
BRICKLAYERS LOCAL 3	8/1/2026	\$68.01	\$12.84	\$15.57	\$7.33	\$0.00	\$103.75
BRICKLAYERS LOCAL 3 (LOWELL)	2/1/2027	\$69.41	\$12.84	\$15.57	\$7.33	\$0.00	\$105.15

<b>Apprentice: BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING)</b>							
<b>Effective Date: 2/1/2026</b>							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$32.91	\$12.84	\$15.57	\$7.33	\$0.00	\$68.65
2	60.00	\$39.49	\$12.84	\$15.57	\$7.33	\$0.00	\$75.23
3	70.00	\$46.07	\$12.84	\$15.57	\$7.33	\$0.00	\$81.81
4	80.00	\$52.65	\$12.84	\$15.57	\$7.33	\$0.00	\$88.39
5	90.00	\$59.23	\$12.84	\$15.57	\$7.33	\$0.00	\$94.97

<b>Apprentice: BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING)</b>							
<b>Effective Date: 8/1/2026</b>							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$34.01	\$12.84	\$15.57	\$7.33	\$0.00	\$69.75
2	60.00	\$40.81	\$12.84	\$15.57	\$7.33	\$0.00	\$76.55
3	70.00	\$47.61	\$12.84	\$15.57	\$7.33	\$0.00	\$83.35
4	80.00	\$54.41	\$12.84	\$15.57	\$7.33	\$0.00	\$90.15
5	90.00	\$61.21	\$12.84	\$15.57	\$7.33	\$0.00	\$96.95

**Apprentice to Journeyworker Ratio: 1:5**

BULLDOZER/GRADER/SCRAPER OPERATING ENGINEERS LOCAL 4	12/1/2025	\$58.02	\$16.55	\$13.35	\$3.25	\$0.00	\$91.17
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$59.30	\$16.55	\$13.35	\$3.25	\$0.00	\$92.45
OPERATING ENGINEERS LOCAL 4	12/1/2026	\$60.74	\$16.55	\$13.35	\$3.25	\$0.00	\$93.89

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

CAISSON & UNDERPINNING BOTTOM MAN LABORERS	12/1/2025	\$49.10	\$10.65	\$9.75	\$9.80	\$0.00	\$79.30
LABORERS - FOUNDATION AND MARINE	6/1/2026	\$50.65	\$10.65	\$9.75	\$9.80	\$0.00	\$80.85
LABORERS	12/1/2026	\$52.15	\$10.65	\$9.75	\$9.80	\$0.00	\$82.35

For apprentice rates see "Apprentice- LABORER"

CAISSON & UNDERPINNING LABORER LABORERS	12/1/2025	\$47.95	\$10.65	\$9.75	\$9.80	\$0.00	\$78.15
LABORERS	6/1/2026	\$49.50	\$10.65	\$9.75	\$9.80	\$0.00	\$79.70

**Construction**

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
LABORERS - FOUNDATION AND MARINE	12/1/2026	\$51.00	\$10.65	\$9.75	\$9.80	\$0.00	\$81.20

For apprentice rates see "Apprentice- LABORER"

CAISSON & UNDERPINNING TOP MAN LABORERS	12/1/2025	\$48.28	\$10.65	\$9.75	\$9.80	\$0.00	\$78.48
LABORERS - FOUNDATION AND MARINE	6/1/2026	\$49.83	\$10.65	\$9.75	\$9.80	\$0.00	\$80.03
LABORERS - FOUNDATION AND MARINE	12/1/2026	\$51.33	\$10.65	\$9.75	\$9.80	\$0.00	\$81.53

For apprentice rates see "Apprentice- LABORER"

CARBIDE CORE DRILL OPERATOR LABORERS	12/1/2025	\$40.72	\$10.65	\$9.75	\$9.11	\$0.00	\$70.23
LABORERS	6/1/2026	\$42.16	\$10.65	\$9.75	\$9.11	\$0.00	\$71.67
LABORERS - ZONE 2	12/1/2026	\$43.60	\$10.65	\$9.75	\$9.11	\$0.00	\$73.11
	6/1/2027	\$45.05	\$10.65	\$9.75	\$9.11	\$0.00	\$74.56
	12/1/2027	\$46.50	\$10.65	\$9.75	\$9.11	\$0.00	\$76.01
	6/1/2028	\$48.00	\$10.65	\$9.75	\$9.11	\$0.00	\$77.51
	12/1/2028	\$49.50	\$10.65	\$9.75	\$9.11	\$0.00	\$79.01

For apprentice rates see "Apprentice- LABORER"

CARPENTER	3/1/2026	\$50.85	\$11.08	\$11.47	\$8.50	\$0.00	\$81.90
CARPENTERS	9/1/2026	\$52.10	\$11.08	\$11.47	\$8.50	\$0.00	\$83.15
CARPENTERS -ZONE 2 (Eastern Massachusetts)	3/1/2027	\$53.35	\$11.08	\$11.47	\$8.50	\$0.00	\$84.40

<b>Apprentice: CARPENTER</b>							
<b>Effective Date: 3/1/2026</b>							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	\$22.88	\$11.08	\$0.00	\$1.73	\$0.00	\$35.69
2	45.00	\$22.88	\$11.08	\$0.00	\$1.73	\$0.00	\$35.69
3	55.00	\$27.97	\$11.08	\$0.00	\$3.40	\$0.00	\$42.45
4	55.00	\$27.97	\$11.08	\$0.00	\$3.40	\$0.00	\$42.45
5	70.00	\$35.60	\$11.08	\$11.41	\$5.10	\$0.00	\$63.19
6	70.00	\$35.60	\$11.08	\$11.41	\$5.10	\$0.00	\$63.19
7	80.00	\$40.68	\$11.08	\$11.44	\$6.80	\$0.00	\$70.00
8	80.00	\$40.68	\$11.08	\$11.44	\$6.80	\$0.00	\$70.00

<b>Apprentice: CARPENTER</b>							
<b>Effective Date: 9/1/2026</b>							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	\$23.45	\$11.08	\$0.00	\$1.73	\$0.00	\$36.26
2	45.00	\$23.45	\$11.08	\$0.00	\$1.73	\$0.00	\$36.26
3	55.00	\$28.66	\$11.08	\$0.00	\$3.40	\$0.00	\$43.14
4	55.00	\$28.66	\$11.08	\$0.00	\$3.40	\$0.00	\$43.14
5	70.00	\$36.47	\$11.08	\$11.41	\$5.10	\$0.00	\$64.06
6	70.00	\$36.47	\$11.08	\$11.41	\$5.10	\$0.00	\$64.06
7	80.00	\$41.68	\$11.08	\$11.44	\$6.80	\$0.00	\$71.00
8	80.00	\$41.68	\$11.08	\$11.44	\$6.80	\$0.00	\$71.00

**Apprentice to Journeyworker Ratio: 1:5**

**Construction**

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
CARPENTER WOOD FRAME	10/1/2025	\$27.37	\$7.38	\$4.47	\$1.00	\$0.00	\$40.22
CARPENTERS	10/1/2026	\$28.47	\$7.38	\$4.47	\$1.00	\$0.00	\$41.32
CARPENTERS-ZONE 3 (Wood Frame)							
All Aspects of New Wood Frame Work							

<b>Apprentice: CARPENTER WOOD FRAME</b>							
<b>Effective Date: 10/1/2025</b>							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	\$16.42	\$7.38	\$0.00	\$0.00	\$0.00	\$23.80
2	60.00	\$16.42	\$7.38	\$0.00	\$0.00	\$0.00	\$23.80
3	65.00	\$17.79	\$7.38	\$0.00	\$1.00	\$0.00	\$26.17
4	70.00	\$19.16	\$7.38	\$0.00	\$1.00	\$0.00	\$27.54
5	75.00	\$20.53	\$7.38	\$3.80	\$1.00	\$0.00	\$32.71
6	80.00	\$21.90	\$7.38	\$3.80	\$1.00	\$0.00	\$34.08
7	85.00	\$23.26	\$7.38	\$3.80	\$1.00	\$0.00	\$35.44
8	90.00	\$24.63	\$7.38	\$3.80	\$1.00	\$0.00	\$36.81

<b>Apprentice: CARPENTER WOOD FRAME</b>							
<b>Effective Date: 10/1/2026</b>							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	\$17.08	\$7.38	\$0.00	\$0.00	\$0.00	\$24.46
2	60.00	\$17.08	\$7.38	\$0.00	\$0.00	\$0.00	\$24.46
3	65.00	\$18.51	\$7.38	\$0.00	\$1.00	\$0.00	\$26.89
4	70.00	\$19.93	\$7.38	\$0.00	\$1.00	\$0.00	\$28.31
5	75.00	\$21.35	\$7.38	\$3.80	\$1.00	\$0.00	\$33.53
6	80.00	\$22.78	\$7.38	\$3.80	\$1.00	\$0.00	\$34.96
7	85.00	\$24.20	\$7.38	\$3.80	\$1.00	\$0.00	\$36.38
8	90.00	\$25.62	\$7.38	\$3.80	\$1.00	\$0.00	\$37.80

**Apprentice to Journeyworker Ratio: 1:5**

CEMENT MASONRY/PLASTERING	1/1/2026	\$53.24	\$13.35	\$16.43	\$7.78	\$1.80	\$92.60
PLASTERERS AND CEMENT MASONS LOCAL 534	7/1/2026	\$54.49	\$13.35	\$16.43	\$7.78	\$1.80	\$93.85
Plasterers and Cement Masons - Zone 1	1/1/2027	\$55.94	\$13.35	\$16.43	\$7.78	\$1.80	\$95.30
	7/1/2027	\$57.29	\$13.35	\$16.43	\$7.78	\$1.80	\$96.65
	1/1/2028	\$58.64	\$13.35	\$16.43	\$7.78	\$1.80	\$98.00

<b>Apprentice: CEMENT MASONRY/PLASTERING</b>							
<b>Effective Date: 1/1/2026</b>							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$26.62	\$13.35	\$16.43	\$0.00	\$0.00	\$56.40
2	60.00	\$31.94	\$13.35	\$16.43	\$7.78	\$1.80	\$71.30
3	65.00	\$34.61	\$13.35	\$16.43	\$7.78	\$1.80	\$73.97
4	70.00	\$37.27	\$13.35	\$16.43	\$7.78	\$1.80	\$76.63

**Construction**

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
<b>Apprentice: CEMENT MASONRY/PLASTERING</b>							
<b>Effective Date: 1/1/2026</b>							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
5	75.00	\$39.93	\$13.35	\$16.43	\$7.78	\$1.80	\$79.29
6	80.00	\$42.59	\$13.35	\$16.43	\$7.78	\$1.80	\$81.95
7	90.00	\$47.92	\$13.35	\$16.43	\$0.00	\$0.00	\$77.70
<b>Apprentice: CEMENT MASONRY/PLASTERING</b>							
<b>Effective Date: 7/1/2026</b>							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$27.25	\$13.35	\$16.43	\$0.00	\$0.00	\$57.03
2	60.00	\$32.69	\$13.35	\$16.43	\$7.78	\$1.80	\$72.05
3	65.00	\$35.42	\$13.35	\$16.43	\$7.78	\$1.80	\$74.78
4	70.00	\$38.14	\$13.35	\$16.43	\$7.78	\$1.80	\$77.50
5	75.00	\$40.87	\$13.35	\$16.43	\$7.78	\$1.80	\$80.23
6	80.00	\$43.59	\$13.35	\$16.43	\$7.78	\$1.80	\$82.95
7	90.00	\$49.04	\$13.35	\$0.00	\$7.78	\$0.00	\$70.17
<b>Apprentice to Journeyworker Ratio: 1:5</b>							
CHAIN SAW OPERATOR	12/1/2025	\$40.72	\$10.65	\$9.75	\$9.11	\$0.00	\$70.23
LABORERS	6/1/2026	\$42.16	\$10.65	\$9.75	\$9.11	\$0.00	\$71.67
LABORERS - ZONE 2	12/1/2026	\$43.60	\$10.65	\$9.75	\$9.11	\$0.00	\$73.11
	6/1/2027	\$45.05	\$10.65	\$9.75	\$9.11	\$0.00	\$74.56
	12/1/2027	\$46.50	\$10.65	\$9.75	\$9.11	\$0.00	\$76.01
	6/1/2028	\$48.00	\$10.65	\$9.75	\$9.11	\$0.00	\$77.51
	12/1/2028	\$49.50	\$10.65	\$9.75	\$9.11	\$0.00	\$79.01
For apprentice rates see "Apprentice- LABORER"							
CLAM SHELLS/SLURRY BUCKETS/HEADING MACHINES	12/1/2025	\$59.88	\$16.55	\$13.35	\$3.25	\$0.00	\$93.03
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$61.21	\$16.55	\$13.35	\$3.25	\$0.00	\$94.36
OPERATING ENGINEERS LOCAL 4	12/1/2026	\$62.69	\$16.55	\$13.35	\$3.25	\$0.00	\$95.84
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
COMPRESSOR OPERATOR	12/1/2025	\$37.37	\$16.55	\$13.35	\$3.25	\$0.00	\$70.52
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$38.23	\$16.55	\$13.35	\$3.25	\$0.00	\$71.38
OPERATING ENGINEERS LOCAL 4	12/1/2026	\$39.18	\$16.55	\$13.35	\$3.25	\$0.00	\$72.33
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
DELEADER (BRIDGE)	1/1/2026	\$59.56	\$10.35	\$12.00	\$12.60	\$0.00	\$94.51
PAINTERS LOCAL 35							
PAINTERS LOCAL 35 - ZONE 2							

**Construction**

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
<b>Apprentice: DELEADER (BRIDGE)</b>							
<b>Effective Date: 1/1/2026</b>							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$29.78	\$10.35	\$0.00	\$0.00	\$0.00	\$40.13
2	55.00	\$32.76	\$10.35	\$0.00	\$6.93	\$0.00	\$50.04
3	60.00	\$35.74	\$10.35	\$0.00	\$7.56	\$0.00	\$53.65
4	65.00	\$38.71	\$10.35	\$0.00	\$8.19	\$0.00	\$57.25
5	70.00	\$41.69	\$10.35	\$12.00	\$8.82	\$0.00	\$72.86
6	75.00	\$44.67	\$10.35	\$12.00	\$9.45	\$0.00	\$76.47
7	80.00	\$47.65	\$10.35	\$12.00	\$10.08	\$0.00	\$80.08
8	90.00	\$53.60	\$10.35	\$12.00	\$11.34	\$0.00	\$87.29

**Apprentice to Journeyworker Ratio: 1:1**

DEMO: ADZEMAN LABORERS	12/1/2025	\$48.00	\$10.65	\$9.75	\$9.65	\$0.00	\$78.05
LABORERS - ZONE 2	6/1/2026	\$49.55	\$10.65	\$9.75	\$9.65	\$0.00	\$79.60
	12/7/2026	\$51.05	\$10.65	\$9.75	\$9.65	\$0.00	\$81.10
	6/7/2027	\$52.65	\$10.65	\$9.75	\$9.65	\$0.00	\$82.70
	12/6/2027	\$54.25	\$10.65	\$9.75	\$9.65	\$0.00	\$84.30
	6/5/2028	\$55.93	\$10.65	\$9.75	\$9.65	\$0.00	\$85.98
	12/4/2028	\$57.60	\$10.65	\$9.75	\$9.65	\$0.00	\$87.65

For apprentice rates see "Apprentice- LABORER"

DEMO: BACKHOE/LOADER/HAMMER OPERATOR LABORERS	12/1/2025	\$49.00	\$10.65	\$9.75	\$9.65	\$0.00	\$79.05
LABORERS - ZONE 2	6/1/2026	\$50.55	\$10.65	\$9.75	\$9.65	\$0.00	\$80.60
	12/7/2026	\$52.05	\$10.65	\$9.75	\$9.65	\$0.00	\$82.10
	6/7/2027	\$53.65	\$10.65	\$9.75	\$9.65	\$0.00	\$83.70
	12/6/2027	\$55.25	\$10.65	\$9.75	\$9.65	\$0.00	\$85.30
	6/5/2028	\$56.93	\$10.65	\$9.75	\$9.65	\$0.00	\$86.98
	12/4/2028	\$58.60	\$10.65	\$9.75	\$9.65	\$0.00	\$88.65

For apprentice rates see "Apprentice- LABORER"

DEMO: BURNERS LABORERS	12/1/2025	\$48.75	\$10.65	\$9.75	\$9.65	\$0.00	\$78.80
LABORERS - ZONE 2	6/1/2026	\$50.30	\$10.65	\$9.75	\$9.65	\$0.00	\$80.35
	12/7/2026	\$51.80	\$10.65	\$9.75	\$9.65	\$0.00	\$81.85
	6/7/2027	\$53.40	\$10.65	\$9.75	\$9.65	\$0.00	\$83.45
	12/6/2027	\$55.00	\$10.65	\$9.75	\$9.65	\$0.00	\$85.05
	6/5/2028	\$56.68	\$10.65	\$9.75	\$9.65	\$0.00	\$86.73
	12/4/2028	\$58.35	\$10.65	\$9.75	\$9.65	\$0.00	\$88.40

For apprentice rates see "Apprentice- LABORER"

DEMO: CONCRETE CUTTER/SAWYER LABORERS	12/1/2025	\$49.00	\$10.65	\$9.75	\$9.65	\$0.00	\$79.05
LABORERS - ZONE 2	6/1/2026	\$50.55	\$10.65	\$9.75	\$9.65	\$0.00	\$80.60
	12/7/2026	\$52.05	\$10.65	\$9.75	\$9.65	\$0.00	\$82.10
	6/7/2027	\$53.65	\$10.65	\$9.75	\$9.65	\$0.00	\$83.70
	12/6/2027	\$55.25	\$10.65	\$9.75	\$9.65	\$0.00	\$85.30
	6/5/2028	\$56.93	\$10.65	\$9.75	\$9.65	\$0.00	\$86.98
	12/4/2028	\$58.60	\$10.65	\$9.75	\$9.65	\$0.00	\$88.65

**Construction**

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
For apprentice rates see "Apprentice- LABORER"							
DEMO: JACKHAMMER OPERATOR	12/1/2025	\$48.75	\$10.65	\$9.75	\$9.65	\$0.00	\$78.80
LABORERS	6/1/2026	\$50.30	\$10.65	\$9.75	\$9.65	\$0.00	\$80.35
LABORERS - ZONE 2	12/7/2026	\$51.80	\$10.65	\$9.75	\$9.65	\$0.00	\$81.85
	6/7/2027	\$53.40	\$10.65	\$9.75	\$9.65	\$0.00	\$83.45
	12/6/2027	\$55.00	\$10.65	\$9.75	\$9.65	\$0.00	\$85.05
	6/5/2028	\$56.68	\$10.65	\$9.75	\$9.65	\$0.00	\$86.73
	12/4/2028	\$58.35	\$10.65	\$9.75	\$9.65	\$0.00	\$88.40
For apprentice rates see "Apprentice- LABORER"							
DEMO: WRECKING LABORER	12/1/2025	\$48.00	\$10.65	\$9.75	\$9.65	\$0.00	\$78.05
LABORERS	6/1/2026	\$49.55	\$10.65	\$9.75	\$9.65	\$0.00	\$79.60
LABORERS - ZONE 2	12/7/2026	\$51.05	\$10.65	\$9.75	\$9.65	\$0.00	\$81.10
	6/7/2027	\$52.65	\$10.65	\$9.75	\$9.65	\$0.00	\$82.70
	12/6/2027	\$54.25	\$10.65	\$9.75	\$9.65	\$0.00	\$84.30
	6/5/2028	\$55.93	\$10.65	\$9.75	\$9.65	\$0.00	\$85.98
	12/4/2028	\$57.60	\$10.65	\$9.75	\$9.65	\$0.00	\$87.65
For apprentice rates see "Apprentice- LABORER"							
DIRECTIONAL DRILL MACHINE OPERATOR	12/1/2025	\$58.02	\$16.55	\$13.35	\$3.25	\$0.00	\$91.17
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$59.30	\$16.55	\$13.35	\$3.25	\$0.00	\$92.45
OPERATING ENGINEERS LOCAL 4	12/1/2026	\$60.74	\$16.55	\$13.35	\$3.25	\$0.00	\$93.89
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
DIVER	8/1/2024	\$78.11	\$10.08	\$11.62	\$12.67	\$0.00	\$112.48
PILE DRIVER LOCAL 56							
PILE DRIVER LOCAL 56 (ZONE 2)							
as of 8-1-24, Apprentices with diving licenses begin at second year. % of Diver wage 70/80/90 2A \$69.83, 3A \$91.79,4A \$102.14 Total Rate							
DIVER TENDER	8/1/2024	\$51.97	\$10.08	\$11.62	\$12.67	\$0.00	\$86.34
PILE DRIVER LOCAL 56							
PILE DRIVER LOCAL 56 (ZONE 2)							
as of 8-1-24, Apprentices with diving licenses begin at second year. % of Piledriver wage 70/80/90 2A \$54.20, 3A \$73.93,4A \$82.05 Total Rate							
DIVER TENDER (EFFLUENT)	8/1/2024	\$83.69	\$10.08	\$11.62	\$12.67	\$0.00	\$118.06
PILE DRIVER LOCAL 56							
PILE DRIVER LOCAL 56 (ZONE 2)							
For apprentice rates see "Apprentice- PILE DRIVER"							
DIVER/SLURRY (EFFLUENT)	8/1/2024	\$117.16	\$10.08	\$11.62	\$12.67	\$0.00	\$151.53
PILE DRIVER LOCAL 56							
PILE DRIVER LOCAL 56 (ZONE 2)							
For apprentice rates see "Apprentice- PILE DRIVER"							
DRAWBRIDGE OPERATOR (Construction)	7/1/2020	\$26.77	\$6.67	\$3.93	\$0.00	\$0.16	\$37.53
DRAWBRIDGE - SEIU LOCAL 888							
DRAWBRIDGE - SEIU LOCAL 888							
ELECTRICIAN	9/7/2025	\$48.16	\$14.98	\$14.30	\$5.30	\$0.00	\$82.74
ELECTRICIANS LOCAL 96	9/6/2026	\$49.38	\$15.96	\$14.57	\$5.43	\$0.00	\$85.34
ELECTRICIANS LOCAL 96							



**Construction**

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
<b>Apprentice: ELEVATOR CONSTRUCTOR</b>							
<b>Effective Date: 1/1/2027</b>							
		<b>Apprentice Base Wage</b>	<b>Health</b>	<b>Pension</b>	<b>Annuity</b>	<b>Supplemental Unemployment</b>	<b>Total Rate</b>
4	70.00	\$50.56	\$16.48	\$11.16	\$11.00	\$0.00	\$89.20
5	80.00	\$57.78	\$16.48	\$11.16	\$11.00	\$0.00	\$96.42
<b>Apprentice to Journeyworker Ratio: 1:1</b>							
ELEVATOR CONSTRUCTOR HELPER	1/1/2026	\$48.46	\$16.38	\$11.06	\$10.70	\$0.00	\$86.60
ELEVATOR CONSTRUCTORS LOCAL 41	1/1/2027	\$50.56	\$16.48	\$11.16	\$11.00	\$0.00	\$89.20
ELEVATOR CONSTRUCTORS LOCAL 41							
For apprentice rates see "Apprentice - ELEVATOR CONSTRUCTOR"							
FENCE & GUARD RAIL ERECTOR (HEAVY & HIGHWAY) LABORERS	12/1/2025	\$40.72	\$10.65	\$9.75	\$9.21	\$0.00	\$70.33
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	6/1/2026	\$42.16	\$10.65	\$9.75	\$9.21	\$0.00	\$71.77
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	12/1/2026	\$43.60	\$10.65	\$9.75	\$9.21	\$0.00	\$73.21
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
FIELD ENG.INST.PERSON-BLDG,SITE,HVY/HWY	11/1/2025	\$53.56	\$16.05	\$13.25	\$3.25	\$0.00	\$86.11
OPERATING ENGINEERS LOCAL 4	5/1/2026	\$55.00	\$16.05	\$13.25	\$3.25	\$0.00	\$87.55
OPERATING ENGINEERS LOCAL 4	11/1/2026	\$56.29	\$16.05	\$13.25	\$3.25	\$0.00	\$88.84
OPERATING ENGINEERS LOCAL 4	5/1/2027	\$57.72	\$16.05	\$13.25	\$3.25	\$0.00	\$90.27
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
FIELD ENG.PARTY CHIEF-BLDG,SITE,HVY/HWY	11/1/2025	\$55.17	\$16.05	\$13.25	\$3.25	\$0.00	\$87.72
OPERATING ENGINEERS LOCAL 4	5/1/2026	\$56.62	\$16.05	\$13.25	\$3.25	\$0.00	\$89.17
OPERATING ENGINEERS LOCAL 4	11/1/2026	\$57.92	\$16.05	\$13.25	\$3.25	\$0.00	\$90.47
OPERATING ENGINEERS LOCAL 4	5/1/2027	\$59.37	\$16.05	\$13.25	\$3.25	\$0.00	\$91.92
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
FIELD ENG.ROD PERSON-BLDG,SITE,HVY/HWY	11/1/2025	\$26.03	\$16.05	\$13.25	\$3.25	\$0.00	\$58.58
OPERATING ENGINEERS LOCAL 4	5/1/2026	\$26.88	\$16.05	\$13.25	\$3.25	\$0.00	\$59.43
OPERATING ENGINEERS LOCAL 4	11/1/2026	\$27.64	\$16.05	\$13.25	\$3.25	\$0.00	\$60.19
OPERATING ENGINEERS LOCAL 4	5/1/2027	\$28.49	\$16.05	\$13.25	\$3.25	\$0.00	\$61.04
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
FIRE ALARM INSTALLER	9/7/2025	\$48.16	\$14.98	\$14.30	\$5.30	\$0.00	\$82.74
ELECTRICIANS LOCAL 96	9/6/2026	\$49.38	\$15.96	\$14.57	\$5.43	\$0.00	\$85.34
ELECTRICIANS LOCAL 96							
For apprentice rates see "Apprentice- ELECTRICIAN"							
FIRE ALARM REPAIR / MAINT/COMMISSIONING	9/7/2025	\$48.16	\$14.98	\$14.30	\$5.30	\$0.00	\$82.74
ELECTRICIANS LOCAL 96	9/6/2026	\$49.38	\$15.96	\$14.57	\$5.43	\$0.00	\$85.34
ELECTRICIANS LOCAL 96							
For apprentice rates see "Apprentice- ELECTRICIAN"							
FIREMAN (ASST. ENGINEER)	12/1/2025	\$47.09	\$16.55	\$13.35	\$3.25	\$0.00	\$80.24
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$48.15	\$16.55	\$13.35	\$3.25	\$0.00	\$81.30
OPERATING ENGINEERS LOCAL 4	12/1/2026	\$49.33	\$16.55	\$13.35	\$3.25	\$0.00	\$82.48
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							

**Construction**

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
FLAGGER & SIGNALER (HEAVY & HIGHWAY)	12/1/2025	\$28.09	\$10.65	\$9.75	\$9.21	\$0.00	\$57.70
LABORERS	6/1/2026	\$29.21	\$10.65	\$9.75	\$9.21	\$0.00	\$58.82
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	12/1/2026	\$29.21	\$10.65	\$9.75	\$9.21	\$0.00	\$58.82

For apprentice rates see "Apprentice- LABORER (Heavy and Highway)

FLOORCOVERER	3/1/2024	\$48.93	\$10.33	\$11.47	\$8.80	\$0.00	\$79.53
FLOORCOVERERS LOCAL 2168							
FLOORCOVERERS LOCAL 2168 ZONE II							

<b>Apprentice: FLOORCOVERER</b>							
<b>Effective Date: 3/1/2024</b>							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$24.47	\$10.33	\$0.00	\$1.76	\$0.00	\$36.56
2	55.00	\$26.91	\$10.33	\$0.00	\$1.76	\$0.00	\$39.00
3	60.00	\$29.36	\$10.33	\$0.00	\$3.52	\$0.00	\$43.21
4	65.00	\$31.80	\$10.33	\$0.00	\$3.52	\$0.00	\$45.65
5	70.00	\$34.25	\$10.33	\$11.47	\$5.28	\$0.00	\$61.33
6	75.00	\$36.70	\$10.33	\$11.47	\$5.28	\$0.00	\$63.78
7	80.00	\$39.14	\$10.33	\$11.47	\$7.04	\$0.00	\$67.98
8	85.00	\$41.59	\$10.33	\$11.47	\$7.04	\$0.00	\$70.43

**Apprentice Notes**  
Steps are 750 hrs.

**Apprentice to Journeyworker Ratio: 1:1**

FORK LIFT/CHERRY PICKER	12/1/2025	\$58.68	\$16.55	\$13.35	\$3.25	\$0.00	\$91.83
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$59.98	\$16.55	\$13.35	\$3.25	\$0.00	\$93.13
OPERATING ENGINEERS LOCAL 4	12/1/2026	\$61.43	\$16.55	\$13.35	\$3.25	\$0.00	\$94.58

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

GENERATOR/LIGHTING PLANT/HEATERS	12/1/2025	\$37.37	\$16.55	\$13.35	\$3.25	\$0.00	\$70.52
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$38.23	\$16.55	\$13.35	\$3.25	\$0.00	\$71.38
OPERATING ENGINEERS LOCAL 4	12/1/2026	\$39.18	\$16.55	\$13.35	\$3.25	\$0.00	\$72.33

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS)	1/1/2026	\$49.06	\$10.35	\$12.00	\$12.60	\$0.00	\$84.01
GLAZIERS LOCAL 35							
GLAZIERS LOCAL 35 (ZONE 2)							

<b>Apprentice: GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS)</b>							
<b>Effective Date: 1/1/2026</b>							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$24.53	\$10.35	\$0.00	\$0.00	\$0.00	\$34.88
2	55.00	\$26.98	\$10.35	\$0.00	\$6.88	\$0.00	\$44.21
3	60.00	\$29.44	\$10.35	\$0.00	\$7.50	\$0.00	\$47.29



**Construction**

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	7/1/2027	\$44.98	\$13.54	\$11.01	\$11.12	\$2.13	\$82.78
	1/1/2028	\$46.48	\$13.54	\$11.01	\$11.12	\$2.13	\$84.28

For apprentice rates see "Apprentice- SHEET METAL WORKER"

HVAC (ELECTRICAL CONTROLS) ELECTRICIANS LOCAL 96	9/7/2025	\$48.16	\$14.98	\$14.30	\$5.30	\$0.00	\$82.74
ELECTRICIANS LOCAL 96	9/6/2026	\$49.38	\$15.96	\$14.57	\$5.43	\$0.00	\$85.34

For apprentice rates see "Apprentice- ELECTRICIAN"

HVAC (TESTING AND BALANCING - AIR) SHEETMETAL WORKERS LOCAL 63	7/1/2025	\$43.48	\$12.94	\$11.01	\$8.72	\$2.13	\$78.28
SHEETMETAL WORKERS LOCAL 63	7/1/2026	\$43.48	\$13.24	\$11.01	\$9.92	\$2.13	\$79.78
	1/1/2027	\$43.48	\$13.54	\$11.01	\$11.12	\$2.13	\$81.28
	7/1/2027	\$44.98	\$13.54	\$11.01	\$11.12	\$2.13	\$82.78
	1/1/2028	\$46.48	\$13.54	\$11.01	\$11.12	\$2.13	\$84.28

For apprentice rates see "Apprentice- SHEET METAL WORKER"

HVAC (TESTING AND BALANCING -WATER) PLUMBERS LOCAL 4	3/1/2026	\$55.90	\$13.10	\$9.71	\$8.06	\$0.00	\$86.77
PLUMBERS LOCAL 4							

For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"

HVAC MECHANIC PLUMBERS LOCAL 4	3/1/2026	\$55.90	\$13.10	\$9.71	\$8.06	\$0.00	\$86.77
PLUMBERS LOCAL 4							

For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"

HYDRAULIC DRILLS LABORERS	12/1/2025	\$41.22	\$10.65	\$9.75	\$9.11	\$0.00	\$70.73
LABORERS - ZONE 2	6/1/2026	\$42.66	\$10.65	\$9.75	\$9.11	\$0.00	\$72.17
	12/1/2026	\$44.10	\$10.65	\$9.75	\$9.11	\$0.00	\$73.61
	6/1/2027	\$45.55	\$10.65	\$9.75	\$9.11	\$0.00	\$75.06
	12/1/2027	\$47.00	\$10.65	\$9.75	\$9.11	\$0.00	\$76.51
	6/1/2028	\$48.50	\$10.65	\$9.75	\$9.11	\$0.00	\$78.01
	12/1/2028	\$50.00	\$10.65	\$9.75	\$9.11	\$0.00	\$79.51

For apprentice rates see "Apprentice- LABORER"

HYDRAULIC DRILLS (HEAVY & HIGHWAY) LABORERS	12/1/2025	\$41.22	\$10.65	\$9.75	\$9.21	\$0.00	\$70.83
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	6/1/2026	\$42.66	\$10.65	\$9.75	\$9.21	\$0.00	\$72.27
	12/1/2026	\$44.10	\$10.65	\$9.75	\$9.21	\$0.00	\$73.71

For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"

INSULATOR (PIPES & TANKS) HEAT & FROST INSULATORS LOCAL 6	9/1/2025	\$54.31	\$14.75	\$9.52	\$10.09	\$0.00	\$88.67
HEAT & FROST INSULATORS LOCAL 6 (WORCESTER)	9/1/2026	\$57.38	\$14.75	\$9.52	\$10.09	\$0.00	\$91.74

<b>Apprentice: INSULATOR (PIPES &amp; TANKS)</b>							
<b>Effective Date: 9/1/2025</b>							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$27.16	\$14.75	\$9.27	\$5.05	\$0.00	\$56.23
2	60.00	\$32.59	\$14.75	\$9.32	\$6.05	\$0.00	\$62.71

**Construction**

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
<b>Apprentice: INSULATOR (PIPES &amp; TANKS)</b>							
<b>Effective Date: 9/1/2025</b>							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
3	70.00	\$38.02	\$14.75	\$9.37	\$7.06	\$0.00	\$69.20
4	80.00	\$43.45	\$14.75	\$9.42	\$8.07	\$0.00	\$75.69

<b>Apprentice: INSULATOR (PIPES &amp; TANKS)</b>							
<b>Effective Date: 9/1/2026</b>							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$28.69	\$14.75	\$9.27	\$5.05	\$0.00	\$57.76
2	60.00	\$34.43	\$14.75	\$9.32	\$6.05	\$0.00	\$64.55
3	70.00	\$40.17	\$14.75	\$9.37	\$7.06	\$0.00	\$71.35
4	80.00	\$45.90	\$14.75	\$9.42	\$8.07	\$0.00	\$78.14

**Apprentice to Journeyworker Ratio: 1:4**

IRONWORKER/WELDER IRONWORKERS LOCAL 7 IRONWORKERS LOCAL 7 (WORCESTER AREA)	9/16/2025	\$57.57	\$9.05	\$12.75	\$14.50	\$0.00	\$93.87
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<b>Apprentice: IRONWORKER/WELDER</b>							
<b>Effective Date: 9/16/2025</b>							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	\$34.54	\$9.05	\$12.75	\$4.50	\$0.00	\$60.84
2	75.00	\$43.18	\$9.05	\$12.75	\$4.50	\$0.00	\$69.48
3	85.00	\$48.93	\$9.05	\$12.75	\$4.50	\$0.00	\$75.23

**Apprentice to Journeyworker Ratio: 1:4**

JACKHAMMER & PAVING BREAKER OPERATOR	12/1/2025	\$40.72	\$10.65	\$9.75	\$9.11	\$0.00	\$70.23
LABORERS	6/1/2026	\$42.16	\$10.65	\$9.75	\$9.11	\$0.00	\$71.67
LABORERS - ZONE 2	12/1/2026	\$43.60	\$10.65	\$9.75	\$9.11	\$0.00	\$73.11
	6/1/2027	\$45.05	\$10.65	\$9.75	\$9.11	\$0.00	\$74.56
	12/1/2027	\$46.50	\$10.65	\$9.75	\$9.11	\$0.00	\$76.01
	6/1/2028	\$48.00	\$10.65	\$9.75	\$9.11	\$0.00	\$77.51
	12/1/2028	\$49.50	\$10.65	\$9.75	\$9.11	\$0.00	\$79.01

For apprentice rates see "Apprentice- LABORER"

LABORER	12/1/2025	\$40.47	\$10.65	\$9.75	\$9.11	\$0.00	\$69.98
LABORERS	6/1/2026	\$41.91	\$10.65	\$9.75	\$9.11	\$0.00	\$71.42
LABORERS - ZONE 2	12/1/2026	\$43.35	\$10.65	\$9.75	\$9.11	\$0.00	\$72.86
	6/1/2027	\$44.80	\$10.65	\$9.75	\$9.11	\$0.00	\$74.31
	12/1/2027	\$46.25	\$10.65	\$9.75	\$9.11	\$0.00	\$75.76
	6/1/2028	\$47.75	\$10.65	\$9.75	\$9.11	\$0.00	\$77.26
	12/1/2028	\$49.25	\$10.65	\$9.75	\$9.11	\$0.00	\$78.76



**Construction**

<b>Classification</b>	<b>Effective Date</b>	<b>Base Wage</b>	<b>Health</b>	<b>Pension</b>	<b>Annuity</b>	<b>Supplemental Unemployment</b>	<b>Total Rate</b>
LABORERS	6/1/2026	\$41.91	\$10.65	\$9.75	\$9.11	\$0.00	\$71.42
LABORERS - ZONE 2	12/1/2026	\$43.35	\$10.65	\$9.75	\$9.11	\$0.00	\$72.86
	6/1/2027	\$44.80	\$10.65	\$9.75	\$9.11	\$0.00	\$74.31
	12/1/2027	\$46.25	\$10.65	\$9.75	\$9.11	\$0.00	\$75.76
	6/1/2028	\$47.75	\$10.65	\$9.75	\$9.11	\$0.00	\$77.26
	12/1/2028	\$49.25	\$10.65	\$9.75	\$9.11	\$0.00	\$78.76

For apprentice rates see "Apprentice- LABORER"

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LABORER: CEMENT FINISHER TENDER	12/1/2025	\$40.47	\$10.65	\$9.75	\$9.11	\$0.00	\$69.98
LABORERS	6/1/2026	\$41.91	\$10.65	\$9.75	\$9.11	\$0.00	\$71.42
LABORERS - ZONE 2	12/1/2026	\$43.35	\$10.65	\$9.75	\$9.11	\$0.00	\$72.86
	6/1/2027	\$44.80	\$10.65	\$9.75	\$9.11	\$0.00	\$74.31
	12/1/2027	\$46.25	\$10.65	\$9.75	\$9.11	\$0.00	\$75.76
	6/1/2028	\$47.75	\$10.65	\$9.75	\$9.11	\$0.00	\$77.26
	12/1/2028	\$49.25	\$10.65	\$9.75	\$9.11	\$0.00	\$78.76

For apprentice rates see "Apprentice- LABORER"

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LABORER: HAZARDOUS WASTE/ASBESTOS REMOVER	12/1/2025	\$40.56	\$10.65	\$9.75	\$9.65	\$0.00	\$70.61
LABORERS	6/1/2026	\$42.00	\$10.65	\$9.75	\$9.65	\$0.00	\$72.05
LABORERS - ZONE 2	12/7/2026	\$43.44	\$10.65	\$9.75	\$9.65	\$0.00	\$73.49
	6/7/2027	\$44.89	\$10.65	\$9.75	\$9.65	\$0.00	\$74.94
	12/6/2027	\$46.34	\$10.65	\$9.75	\$9.65	\$0.00	\$76.39
	6/5/2028	\$47.84	\$10.65	\$9.75	\$9.65	\$0.00	\$77.89
	12/4/2028	\$49.34	\$10.65	\$9.75	\$9.65	\$0.00	\$79.39

For apprentice rates see "Apprentice- LABORER"

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LABORER: MASON TENDER	12/1/2025	\$40.72	\$10.65	\$9.75	\$9.11	\$0.00	\$70.23
LABORERS	6/1/2026	\$42.16	\$10.65	\$9.75	\$9.11	\$0.00	\$71.67
LABORERS - ZONE 2	12/1/2026	\$43.60	\$10.65	\$9.75	\$9.11	\$0.00	\$73.11
	6/1/2027	\$45.05	\$10.65	\$9.75	\$9.11	\$0.00	\$74.56
	12/1/2027	\$46.50	\$10.65	\$9.75	\$9.11	\$0.00	\$76.01
	6/1/2028	\$48.00	\$10.65	\$9.75	\$9.11	\$0.00	\$77.51
	12/1/2028	\$49.50	\$10.65	\$9.75	\$9.11	\$0.00	\$79.01

For apprentice rates see "Apprentice- LABORER"

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LABORER: MASON TENDER (HEAVY & HIGHWAY)	12/1/2025	\$40.72	\$10.65	\$9.75	\$9.21	\$0.00	\$70.33
LABORERS	6/1/2026	\$42.16	\$10.65	\$9.75	\$9.21	\$0.00	\$71.77
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	12/1/2026	\$43.60	\$10.65	\$9.75	\$9.21	\$0.00	\$73.21

For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"

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LABORER: MULTI-TRADE TENDER	12/1/2025	\$40.47	\$10.65	\$9.75	\$9.11	\$0.00	\$69.98
LABORERS	6/1/2026	\$41.91	\$10.65	\$9.75	\$9.11	\$0.00	\$71.42
LABORERS - ZONE 2	12/1/2026	\$43.35	\$10.65	\$9.75	\$9.11	\$0.00	\$72.86
	6/1/2027	\$44.80	\$10.65	\$9.75	\$9.11	\$0.00	\$74.31
	12/1/2027	\$46.25	\$10.65	\$9.75	\$9.11	\$0.00	\$75.76
	6/1/2028	\$47.75	\$10.65	\$9.75	\$9.11	\$0.00	\$77.26
	12/1/2028	\$49.25	\$10.65	\$9.75	\$9.11	\$0.00	\$78.76

For apprentice rates see "Apprentice- LABORER"

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LABORER: TREE REMOVER	12/1/2025	\$40.47	\$10.65	\$9.75	\$9.11	\$0.00	\$69.98
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**Construction**

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
LABORERS	6/1/2026	\$41.91	\$10.65	\$9.75	\$9.11	\$0.00	\$71.42
LABORERS - ZONE 2	12/1/2026	\$43.35	\$10.65	\$9.75	\$9.11	\$0.00	\$72.86
	6/1/2027	\$44.80	\$10.65	\$9.75	\$9.11	\$0.00	\$74.31
	12/1/2027	\$46.25	\$10.65	\$9.75	\$9.11	\$0.00	\$75.76
	6/1/2028	\$47.75	\$10.65	\$9.75	\$9.11	\$0.00	\$77.26
	12/1/2028	\$49.25	\$10.65	\$9.75	\$9.11	\$0.00	\$78.76

This classification applies to the removal of standing trees, and the trimming and removal of branches and limbs when related to public works construction or site clearance incidental to construction . For apprentice rates see "Apprentice- LABORER"

LASER BEAM OPERATOR LABORERS	12/1/2025	\$40.72	\$10.65	\$9.75	\$9.11	\$0.00	\$70.23
LABORERS - ZONE 2	6/1/2026	\$42.16	\$10.65	\$9.75	\$9.11	\$0.00	\$71.67
	12/1/2026	\$43.60	\$10.65	\$9.75	\$9.11	\$0.00	\$73.11
	6/1/2027	\$45.05	\$10.65	\$9.75	\$9.11	\$0.00	\$74.56
	12/1/2027	\$46.50	\$10.65	\$9.75	\$9.11	\$0.00	\$76.01
	6/1/2028	\$48.00	\$10.65	\$9.75	\$9.11	\$0.00	\$77.51
	12/1/2028	\$49.50	\$10.65	\$9.75	\$9.11	\$0.00	\$79.01

For apprentice rates see "Apprentice- LABORER"

LASER BEAM OPERATOR (HEAVY & HIGHWAY) LABORERS	12/1/2025	\$40.72	\$10.65	\$9.75	\$9.21	\$0.00	\$70.33
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	6/1/2026	\$42.16	\$10.65	\$9.75	\$9.21	\$0.00	\$71.77
	12/1/2026	\$43.60	\$10.65	\$9.75	\$9.21	\$0.00	\$73.21

For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"

MARBLE & TILE FINISHERS BRICKLAYERS LOCAL 3	2/1/2026	\$52.08	\$12.84	\$15.57	\$5.78	\$0.00	\$86.27
BRICKLAYERS LOCAL 3 - MARBLE & TILE	8/1/2026	\$53.84	\$12.84	\$15.57	\$5.78	\$0.00	\$88.03
	2/1/2027	\$54.96	\$12.84	\$15.57	\$5.78	\$0.00	\$89.15

<b>Apprentice: MARBLE &amp; TILE FINISHERS</b>							
<b>Effective Date: 2/1/2026</b>							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$26.04	\$12.84	\$15.57	\$5.78	\$0.00	\$60.23
2	60.00	\$31.25	\$12.84	\$15.57	\$5.78	\$0.00	\$65.44
3	70.00	\$36.46	\$12.84	\$15.57	\$5.78	\$0.00	\$70.65
4	80.00	\$41.66	\$12.84	\$15.57	\$5.78	\$0.00	\$75.85
5	90.00	\$46.87	\$12.84	\$15.57	\$5.78	\$0.00	\$81.06

<b>Apprentice: MARBLE &amp; TILE FINISHERS</b>							
<b>Effective Date: 8/1/2026</b>							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$26.92	\$12.84	\$15.57	\$5.78	\$0.00	\$61.11
2	60.00	\$32.30	\$12.84	\$15.57	\$5.78	\$0.00	\$66.49
3	70.00	\$37.69	\$12.84	\$15.57	\$5.78	\$0.00	\$71.88
4	80.00	\$43.07	\$12.84	\$15.57	\$5.78	\$0.00	\$77.26
5	90.00	\$48.46	\$12.84	\$15.57	\$5.78	\$0.00	\$82.65

**Apprentice to Journeyworker Ratio: 1:5**

**Construction**

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
MARBLE MASONS, TILELAYERS & TERRAZZO MECH	2/1/2026	\$67.97	\$12.84	\$15.57	\$7.99	\$0.00	\$104.37
BRICKLAYERS LOCAL 3	8/1/2026	\$70.17	\$12.84	\$15.57	\$7.99	\$0.00	\$106.57
BRICKLAYERS LOCAL 3 - MARBLE & TILE	2/1/2027	\$71.57	\$12.84	\$15.57	\$7.99	\$0.00	\$107.97

Apprentice: MARBLE MASONS, TILELAYERS & TERRAZZO MECH							
Effective Date: 2/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$33.99	\$12.84	\$15.57	\$7.99	\$0.00	\$70.39
2	60.00	\$40.78	\$12.84	\$15.57	\$7.99	\$0.00	\$77.18
3	70.00	\$47.58	\$12.84	\$15.57	\$7.99	\$0.00	\$83.98
4	80.00	\$54.38	\$12.84	\$15.57	\$7.99	\$0.00	\$90.78
5	90.00	\$61.17	\$12.84	\$15.57	\$7.99	\$0.00	\$97.57

Apprentice: MARBLE MASONS, TILELAYERS & TERRAZZO MECH							
Effective Date: 8/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$35.09	\$12.84	\$15.57	\$7.99	\$0.00	\$71.49
2	60.00	\$42.10	\$12.84	\$15.57	\$7.99	\$0.00	\$78.50
3	70.00	\$49.12	\$12.84	\$15.57	\$7.99	\$0.00	\$85.52
4	80.00	\$56.14	\$12.84	\$15.57	\$7.99	\$0.00	\$92.54
5	90.00	\$63.15	\$12.84	\$15.57	\$7.99	\$0.00	\$99.55

**Apprentice to Journeyworker Ratio: 1:5**

MECH. SWEEPER OPERATOR (ON CONST. SITES)	12/1/2025	\$58.02	\$16.55	\$13.35	\$3.25	\$0.00	\$91.17
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$59.30	\$16.55	\$13.35	\$3.25	\$0.00	\$92.45
OPERATING ENGINEERS LOCAL 4	12/1/2026	\$60.74	\$16.55	\$13.35	\$3.25	\$0.00	\$93.89

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

MECHANICS MAINTENANCE	12/1/2025	\$58.02	\$16.55	\$13.35	\$3.25	\$0.00	\$91.17
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$59.30	\$16.55	\$13.35	\$3.25	\$0.00	\$92.45
OPERATING ENGINEERS LOCAL 4	12/1/2026	\$60.74	\$16.55	\$13.35	\$3.25	\$0.00	\$93.89

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

MILLWRIGHT (Zone 3)	1/5/2026	\$45.20	\$10.58	\$11.47	\$9.75	\$0.00	\$77.00
MILLWRIGHTS LOCAL 1121							
MILLWRIGHTS LOCAL 1121 - Zone 3							

Apprentice: MILLWRIGHT (Zone 3)							
Effective Date: 1/5/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	55.00	\$24.86	\$10.58	\$0.00	\$5.36	\$0.00	\$40.80
2	65.00	\$29.38	\$10.58	\$0.00	\$6.34	\$0.00	\$46.30
3	75.00	\$33.90	\$10.58	\$11.47	\$7.31	\$0.00	\$63.26

**Construction**

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
<b>Apprentice: MILLWRIGHT (Zone 3)</b>							
<b>Effective Date: 1/5/2026</b>							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
4	85.00	\$38.42	\$10.58	\$11.47	\$8.29	\$0.00	\$68.76

**Apprentice Notes**  
 Step 1&2 Appr. indentured after 1/6/2020 receive no pension,

**Apprentice to Journeyworker Ratio: 1:4**

MORTAR MIXER LABORERS	12/1/2025	\$40.72	\$10.65	\$9.75	\$9.11	\$0.00	\$70.23
LABORERS - ZONE 2	6/1/2026	\$42.16	\$10.65	\$9.75	\$9.11	\$0.00	\$71.67
	12/1/2026	\$43.60	\$10.65	\$9.75	\$9.11	\$0.00	\$73.11
	6/1/2027	\$45.05	\$10.65	\$9.75	\$9.11	\$0.00	\$74.56
	12/1/2027	\$46.50	\$10.65	\$9.75	\$9.11	\$0.00	\$76.01
	6/1/2028	\$48.00	\$10.65	\$9.75	\$9.11	\$0.00	\$77.51
	12/1/2028	\$49.50	\$10.65	\$9.75	\$9.11	\$0.00	\$79.01

For apprentice rates see "Apprentice- LABORER"

OILER (OTHER THAN TRUCK CRANES,GRADALLS)	12/1/2025	\$25.08	\$16.55	\$13.35	\$3.25	\$0.00	\$58.23
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$25.67	\$16.55	\$13.35	\$3.25	\$0.00	\$58.82
OPERATING ENGINEERS LOCAL 4	12/1/2026	\$26.34	\$16.55	\$13.35	\$3.25	\$0.00	\$59.49

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

OILER (TRUCK CRANES, GRADALLS)	12/1/2025	\$31.05	\$16.55	\$13.35	\$3.25	\$0.00	\$64.20
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$31.77	\$16.55	\$13.35	\$3.25	\$0.00	\$64.92
OPERATING ENGINEERS LOCAL 4	12/1/2026	\$32.57	\$16.55	\$13.35	\$3.25	\$0.00	\$65.72

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

OTHER POWER DRIVEN EQUIPMENT - CLASS II	12/1/2025	\$58.02	\$16.55	\$13.35	\$3.25	\$0.00	\$91.17
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$59.30	\$16.55	\$13.35	\$3.25	\$0.00	\$92.45
OPERATING ENGINEERS LOCAL 4	12/1/2026	\$60.74	\$16.55	\$13.35	\$3.25	\$0.00	\$93.89

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

PAINTER (BRIDGES/TANKS)	1/1/2026	\$59.56	\$10.35	\$12.00	\$12.50	\$0.00	\$94.41
PAINTERS LOCAL 35							
PAINTERS LOCAL 35 - ZONE 2							

<b>Apprentice: PAINTER (BRIDGES/TANKS)</b>							
<b>Effective Date: 1/1/2026</b>							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$29.78	\$10.35	\$0.00	\$0.00	\$0.00	\$40.13
2	55.00	\$32.76	\$10.35	\$0.00	\$6.93	\$0.00	\$50.04
3	60.00	\$35.74	\$10.35	\$0.00	\$7.56	\$0.00	\$53.65
4	65.00	\$38.71	\$10.35	\$0.00	\$8.19	\$0.00	\$57.25



**Construction**

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
<b>Apprentice to Journeyworker Ratio: 1:1</b>							
PAINTER / TAPER (BRUSH, NEW) *	1/1/2026	\$49.06	\$10.35	\$12.00	\$12.60	\$0.00	\$84.01
* If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used.							
PAINTERS LOCAL 35							
PAINTERS LOCAL 35 - ZONE 2							

<b>Apprentice: PAINTER / TAPER (BRUSH, NEW) *</b>							
<b>Effective Date: 1/1/2026</b>							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$24.53	\$10.35	\$0.00	\$0.00	\$0.00	\$34.88
2	55.00	\$26.98	\$10.35	\$0.00	\$6.93	\$0.00	\$44.26
3	60.00	\$29.44	\$10.35	\$0.00	\$7.56	\$0.00	\$47.35
4	65.00	\$31.89	\$10.35	\$0.00	\$8.19	\$0.00	\$50.43
5	70.00	\$34.34	\$10.35	\$12.00	\$8.82	\$0.00	\$65.51
6	75.00	\$36.80	\$10.35	\$12.00	\$9.45	\$0.00	\$68.60
7	80.00	\$39.25	\$10.35	\$12.00	\$10.08	\$0.00	\$71.68
8	90.00	\$44.15	\$10.35	\$12.00	\$11.34	\$0.00	\$77.84

**Apprentice to Journeyworker Ratio: 1:1**

PAINTER / TAPER (BRUSH, REPAINT)	1/1/2026	\$47.12	\$10.35	\$12.00	\$12.60	\$0.00	\$82.07
PAINTERS LOCAL 35							
PAINTERS LOCAL 35 - ZONE 2							

<b>Apprentice: PAINTER / TAPER (BRUSH, REPAINT)</b>							
<b>Effective Date: 1/1/2026</b>							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$23.56	\$10.35	\$0.00	\$0.00	\$0.00	\$33.91
2	55.00	\$25.92	\$10.35	\$0.00	\$6.93	\$0.00	\$43.20
3	60.00	\$28.27	\$10.35	\$0.00	\$7.56	\$0.00	\$46.18
4	65.00	\$30.63	\$10.35	\$0.00	\$8.19	\$0.00	\$49.17
5	70.00	\$32.98	\$10.35	\$12.00	\$8.82	\$0.00	\$64.15
6	75.00	\$35.34	\$10.35	\$12.00	\$9.45	\$0.00	\$67.14
7	80.00	\$37.70	\$10.35	\$12.00	\$10.08	\$0.00	\$70.13
8	90.00	\$42.41	\$10.35	\$12.00	\$11.34	\$0.00	\$76.10

**Apprentice to Journeyworker Ratio: 1:1**

PAINTER TRAFFIC MARKINGS (HEAVY/HIGHWAY)	12/1/2025	\$40.47	\$10.65	\$9.75	\$9.21	\$0.00	\$70.08
LABORERS	6/1/2026	\$41.91	\$10.65	\$9.75	\$9.21	\$0.00	\$71.52
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	12/1/2026	\$43.35	\$10.65	\$9.75	\$9.21	\$0.00	\$72.96

For apprentice rates see "Apprentice- LABORER (Heavy and Highway)

PANEL & PICKUP TRUCKS DRIVER	1/1/2026	\$40.78	\$16.17	\$21.78	\$0.00	\$0.00	\$78.73
TEAMSTERS JOINT COUNCIL NO. 10	6/1/2026	\$41.78	\$16.17	\$21.78	\$0.00	\$0.00	\$79.73
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	12/1/2026	\$41.78	\$16.17	\$23.52	\$0.00	\$0.00	\$81.47

**Construction**

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	1/1/2027	\$41.78	\$16.77	\$23.52	\$0.00	\$0.00	\$82.07

PIER AND DOCK CONSTRUCTOR (UNDERPINNING AND DECK) PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 2)	8/1/2024	\$51.97	\$10.08	\$11.62	\$12.67	\$0.00	\$86.34
For apprentice rates see "Apprentice- PILE DRIVER"							

PILE DRIVER PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 2)	8/1/2024	\$51.97	\$10.08	\$11.62	\$12.67	\$0.00	\$86.34
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<b>Apprentice: PILE DRIVER</b>							
<b>Effective Date: 8/1/2024</b>							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	\$23.39	\$10.08	\$0.00	\$2.53	\$0.00	\$36.00
2	55.00	\$28.58	\$10.08	\$0.00	\$5.07	\$0.00	\$43.73
3	70.00	\$36.38	\$10.08	\$11.62	\$7.60	\$0.00	\$65.68
4	80.00	\$41.58	\$10.08	\$11.62	\$10.14	\$0.00	\$73.42

**Apprentice to Journeyworker Ratio: 1:5**

PIPELAYER LABORERS LABORERS - ZONE 2	12/1/2025	\$40.72	\$10.65	\$9.75	\$9.11	\$0.00	\$70.23
	6/1/2026	\$42.16	\$10.65	\$9.75	\$9.11	\$0.00	\$71.67
	12/1/2026	\$43.60	\$10.65	\$9.75	\$9.11	\$0.00	\$73.11
	6/1/2027	\$45.05	\$10.65	\$9.75	\$9.11	\$0.00	\$74.56
	12/1/2027	\$46.50	\$10.65	\$9.75	\$9.11	\$0.00	\$76.01
	6/1/2028	\$48.00	\$10.65	\$9.75	\$9.11	\$0.00	\$77.51
	12/1/2028	\$49.50	\$10.65	\$9.75	\$9.11	\$0.00	\$79.01

For apprentice rates see "Apprentice- LABORER"

PIPELAYER (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 2 (HEAVY & HIGHWAY)	12/1/2025	\$40.72	\$10.65	\$9.75	\$9.21	\$0.00	\$70.33
	6/1/2026	\$42.16	\$10.65	\$9.75	\$9.21	\$0.00	\$71.77
	12/1/2026	\$43.60	\$10.65	\$9.75	\$9.21	\$0.00	\$73.21

For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"

PLUMBER & PIPEFITTER PLUMBERS LOCAL 4 PLUMBERS LOCAL 4	3/1/2026	\$55.90	\$13.10	\$9.71	\$8.06	\$0.00	\$86.77
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<b>Apprentice: PLUMBER &amp; PIPEFITTER</b>							
<b>Effective Date: 3/1/2026</b>							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	40.00	\$22.36	\$13.10	\$0.00	\$0.00	\$0.00	\$35.46
2	50.00	\$27.95	\$13.10	\$0.00	\$0.00	\$0.00	\$41.05
3	60.00	\$33.54	\$13.10	\$0.00	\$0.00	\$0.00	\$46.64
4	70.00	\$39.13	\$13.10	\$0.00	\$8.06	\$0.00	\$60.29

**Construction**

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate																
<p><b>Apprentice: PLUMBER &amp; PIPEFITTER</b></p> <p><b>Effective Date: 3/1/2026</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Step</th> <th>Percent</th> <th>Apprentice Base Wage</th> <th>Health</th> <th>Pension</th> <th>Annuity</th> <th>Supplemental Unemployment</th> <th>Total Rate</th> </tr> </thead> <tbody> <tr> <td>5</td> <td>80.00</td> <td>\$44.72</td> <td>\$13.10</td> <td>\$0.00</td> <td>\$8.06</td> <td>\$0.00</td> <td>\$65.88</td> </tr> </tbody> </table>								Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate	5	80.00	\$44.72	\$13.10	\$0.00	\$8.06	\$0.00	\$65.88
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate																
5	80.00	\$44.72	\$13.10	\$0.00	\$8.06	\$0.00	\$65.88																
<b>Apprentice to Journeyworker Ratio: 1:3</b>																							
PNEUMATIC CONTROLS (TEMP.) PLUMBERS LOCAL 4 PLUMBERS LOCAL 4	3/1/2026	\$55.90	\$13.10	\$9.71	\$8.06	\$0.00	\$86.77																
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"																							
PNEUMATIC DRILL/TOOL OPERATOR LABORERS	12/1/2025	\$40.72	\$10.65	\$9.75	\$9.11	\$0.00	\$70.23																
LABORERS - ZONE 2	6/1/2026	\$42.16	\$10.65	\$9.75	\$9.11	\$0.00	\$71.67																
	12/1/2026	\$43.60	\$10.65	\$9.75	\$9.11	\$0.00	\$73.11																
	6/1/2027	\$45.05	\$10.65	\$9.75	\$9.11	\$0.00	\$74.56																
	12/1/2027	\$46.50	\$10.65	\$9.75	\$9.11	\$0.00	\$76.01																
	6/1/2028	\$48.00	\$10.65	\$9.75	\$9.11	\$0.00	\$77.51																
	12/1/2028	\$49.50	\$10.65	\$9.75	\$9.11	\$0.00	\$79.01																
For apprentice rates see "Apprentice- LABORER"																							
PNEUMATIC DRILL/TOOL OPERATOR (HEAVY & HIGHWAY) LABORERS	12/1/2025	\$40.72	\$10.65	\$9.75	\$9.21	\$0.00	\$70.33																
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	6/1/2026	\$42.16	\$10.65	\$9.75	\$9.21	\$0.00	\$71.77																
	12/1/2026	\$43.60	\$10.65	\$9.75	\$9.21	\$0.00	\$73.21																
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"																							
POWDERMAN & BLASTER LABORERS	12/1/2025	\$41.47	\$10.65	\$9.75	\$9.11	\$0.00	\$70.98																
LABORERS - ZONE 2	6/1/2026	\$42.91	\$10.65	\$9.75	\$9.11	\$0.00	\$72.42																
	12/1/2026	\$44.35	\$10.65	\$9.75	\$9.11	\$0.00	\$73.86																
	6/1/2027	\$45.80	\$10.65	\$9.75	\$9.11	\$0.00	\$75.31																
	12/1/2027	\$47.25	\$10.65	\$9.75	\$9.11	\$0.00	\$76.76																
	6/1/2028	\$48.75	\$10.65	\$9.75	\$9.11	\$0.00	\$78.26																
	12/1/2028	\$50.25	\$10.65	\$9.75	\$9.11	\$0.00	\$79.76																
For apprentice rates see "Apprentice- LABORER"																							
POWDERMAN & BLASTER (HEAVY & HIGHWAY) LABORERS	12/1/2025	\$41.47	\$10.65	\$9.75	\$9.21	\$0.00	\$71.08																
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	6/1/2026	\$42.91	\$10.65	\$9.75	\$9.21	\$0.00	\$72.52																
	12/1/2026	\$44.35	\$10.65	\$9.75	\$9.21	\$0.00	\$73.96																
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"																							
POWER SHOVEL/DERRICK/TRENCHING MACHINE OPERATING ENGINEERS LOCAL 4	12/1/2025	\$58.68	\$16.55	\$13.35	\$3.25	\$0.00	\$91.83																
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$59.98	\$16.55	\$13.35	\$3.25	\$0.00	\$93.13																
	12/1/2026	\$61.43	\$16.55	\$13.35	\$3.25	\$0.00	\$94.58																
For apprentice rates see "Apprentice- OPERATING ENGINEERS"																							
PUMP OPERATOR (CONCRETE) OPERATING ENGINEERS LOCAL 4	12/1/2025	\$58.02	\$16.55	\$13.35	\$3.25	\$0.00	\$91.17																
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$59.30	\$16.55	\$13.35	\$3.25	\$0.00	\$92.45																
	12/1/2026	\$60.74	\$16.55	\$13.35	\$3.25	\$0.00	\$93.89																
For apprentice rates see "Apprentice- OPERATING ENGINEERS"																							

**Construction**

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
PUMP OPERATOR (DEWATERING, OTHER)	12/1/2025	\$37.37	\$16.55	\$13.35	\$3.25	\$0.00	\$70.52
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$38.23	\$16.55	\$13.35	\$3.25	\$0.00	\$71.38
OPERATING ENGINEERS LOCAL 4	12/1/2026	\$39.18	\$16.55	\$13.35	\$3.25	\$0.00	\$72.33

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

READY-MIX CONCRETE DRIVER TEAMSTERS 170	2/2/2026	\$29.50	\$12.37	\$8.00	\$0.00	\$0.00	\$49.87
TEAMSTERS 170 -J.G.MacLellan (Lunenburg)	1/1/2027	\$30.00	\$12.37	\$8.00	\$0.00	\$0.00	\$50.37

RECLAIMERS	12/1/2025	\$58.02	\$16.55	\$13.35	\$3.25	\$0.00	\$91.17
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$59.30	\$16.55	\$13.35	\$3.25	\$0.00	\$92.45
OPERATING ENGINEERS LOCAL 4	12/1/2026	\$60.74	\$16.55	\$13.35	\$3.25	\$0.00	\$93.89

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

RIDE-ON MOTORIZED BUGGY OPERATOR LABORERS	12/1/2025	\$40.72	\$10.65	\$9.75	\$9.11	\$0.00	\$70.23
LABORERS - ZONE 2	6/1/2026	\$42.16	\$10.65	\$9.75	\$9.11	\$0.00	\$71.67
	12/1/2026	\$43.60	\$10.65	\$9.75	\$9.11	\$0.00	\$73.11
	6/1/2027	\$45.05	\$10.65	\$9.75	\$9.11	\$0.00	\$74.56
	12/1/2027	\$46.50	\$10.65	\$9.75	\$9.11	\$0.00	\$76.01
	6/1/2028	\$48.00	\$10.65	\$9.75	\$9.11	\$0.00	\$77.51
	12/1/2028	\$49.50	\$10.65	\$9.75	\$9.11	\$0.00	\$79.01

For apprentice rates see "Apprentice- LABORER"

ROLLER/SPREADER/MULCHING MACHINE OPERATING ENGINEERS LOCAL 4	12/1/2025	\$58.02	\$16.55	\$13.35	\$3.25	\$0.00	\$91.17
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$59.30	\$16.55	\$13.35	\$3.25	\$0.00	\$92.45
OPERATING ENGINEERS LOCAL 4	12/1/2026	\$60.74	\$16.55	\$13.35	\$3.25	\$0.00	\$93.89

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

ROOFER (Inc.Roofer Waterproofng &Roofer Damproofg) ROOFERS LOCAL 33 ROOFERS LOCAL 33	2/1/2026	\$53.53	\$14.53	\$12.67	\$9.03	\$0.00	\$89.76
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<b>Apprentice: ROOFER (Inc.Roofer Waterproofng &amp;Roofer Damproofg)</b>							
<b>Effective Date: 2/1/2026</b>							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$26.77	\$14.53	\$6.52	\$9.03	\$0.00	\$56.85
2	60.00	\$32.12	\$14.53	\$12.67	\$9.03	\$0.00	\$68.35
3	65.00	\$34.79	\$14.53	\$12.67	\$9.03	\$0.00	\$71.02
4	75.00	\$40.15	\$14.53	\$12.67	\$9.03	\$0.00	\$76.38
5	85.00	\$45.50	\$14.53	\$12.67	\$9.03	\$0.00	\$81.73

**Apprentice Notes**  
 \*\* 1:5, 2:6-10, the 1:10; Reroofing: 1:4, then 1:1

**Apprentice to Journeyworker Ratio: 1:5**

ROOFER SLATE / TILE / PRECAST CONCRETE ROOFERS LOCAL 33 ROOFERS LOCAL 33	2/1/2026	\$53.78	\$14.53	\$12.67	\$9.03	\$0.00	\$90.01
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**Construction**

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
SHEETMETAL WORKER	7/1/2025	\$43.48	\$12.94	\$11.01	\$8.72	\$2.13	\$78.28
SHEETMETAL WORKERS LOCAL 63	7/1/2026	\$43.48	\$13.24	\$11.01	\$9.92	\$2.13	\$79.78
SHEETMETAL WORKERS LOCAL 63	1/1/2027	\$43.48	\$13.54	\$11.01	\$11.12	\$2.13	\$81.28
	7/1/2027	\$44.98	\$13.54	\$11.01	\$11.12	\$2.13	\$82.78
	1/1/2028	\$46.48	\$13.54	\$11.01	\$11.12	\$2.13	\$84.28

Apprentice: SHEETMETAL WORKER							
Effective Date: 7/1/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	\$19.57	\$5.82	\$4.95	\$0.00	\$0.85	\$31.19
2	50.00	\$21.74	\$6.47	\$5.51	\$0.00	\$0.94	\$34.66
3	55.00	\$23.91	\$7.12	\$9.91	\$0.00	\$1.15	\$42.09
4	60.00	\$26.09	\$7.76	\$9.91	\$0.00	\$1.23	\$44.99
5	65.00	\$28.26	\$8.41	\$9.91	\$0.00	\$1.31	\$47.89
6	70.00	\$30.44	\$9.06	\$9.91	\$0.00	\$1.39	\$50.80
7	75.00	\$32.61	\$9.71	\$9.91	\$0.00	\$1.47	\$53.70
8	80.00	\$34.78	\$10.35	\$9.91	\$8.72	\$1.78	\$65.54
9	85.00	\$36.96	\$11.00	\$9.91	\$8.72	\$1.86	\$68.45
10	90.00	\$39.13	\$11.65	\$9.91	\$8.72	\$1.94	\$71.35

Apprentice: SHEETMETAL WORKER							
Effective Date: 7/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	\$19.57	\$5.96	\$4.95	\$0.00	\$0.85	\$31.33
2	50.00	\$21.74	\$6.62	\$5.51	\$0.00	\$0.94	\$34.81
3	55.00	\$23.91	\$7.28	\$9.91	\$0.00	\$1.15	\$42.25
4	60.00	\$26.09	\$7.94	\$9.91	\$0.00	\$1.23	\$45.17
5	65.00	\$28.26	\$8.60	\$9.91	\$0.00	\$1.31	\$48.08
6	70.00	\$30.44	\$9.27	\$9.91	\$0.00	\$1.39	\$51.01
7	75.00	\$32.61	\$9.93	\$9.91	\$0.00	\$1.47	\$53.92
8	80.00	\$34.78	\$10.59	\$9.91	\$9.92	\$1.78	\$66.98
9	85.00	\$36.96	\$11.25	\$9.91	\$9.92	\$1.86	\$69.90
10	90.00	\$39.13	\$11.92	\$9.91	\$9.92	\$1.94	\$72.82

**Apprentice to Journeyworker Ratio: 1:3**

SPECIALIZED EARTH MOVING EQUIP < 35 TONS	1/1/2026	\$41.24	\$16.17	\$21.78	\$0.00	\$0.00	\$79.19
TEAMSTERS JOINT COUNCIL NO. 10	6/1/2026	\$42.24	\$16.17	\$21.78	\$0.00	\$0.00	\$80.19
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	12/1/2026	\$42.24	\$16.17	\$23.52	\$0.00	\$0.00	\$81.93
	1/1/2027	\$42.24	\$16.77	\$23.52	\$0.00	\$0.00	\$82.53
SPECIALIZED EARTH MOVING EQUIP > 35 TONS	1/1/2026	\$41.53	\$16.17	\$21.78	\$0.00	\$0.00	\$79.48
TEAMSTERS JOINT COUNCIL NO. 10	6/1/2026	\$42.53	\$16.17	\$21.78	\$0.00	\$0.00	\$80.48
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	12/1/2026	\$42.53	\$16.17	\$23.52	\$0.00	\$0.00	\$82.22

**Construction**

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	1/1/2027	\$42.53	\$16.77	\$23.52	\$0.00	\$0.00	\$82.82
SPRINKLER FITTER	1/1/2026	\$53.25	\$13.60	\$7.45	\$9.41	\$0.00	\$83.71
SPRINKLER FITTERS LOCAL 669	4/1/2026	\$56.54	\$13.60	\$7.45	\$9.41	\$0.00	\$87.00
SPRINKLER FITTERS LOCAL 669	7/1/2026	\$56.54	\$13.60	\$7.45	\$9.41	\$0.00	\$87.00
	10/1/2026	\$56.54	\$13.60	\$7.45	\$9.41	\$0.00	\$87.00
	1/1/2027	\$56.54	\$14.55	\$7.50	\$9.41	\$0.00	\$88.00
	4/1/2027	\$59.83	\$14.55	\$7.50	\$9.41	\$0.00	\$91.29
	7/1/2027	\$59.83	\$14.55	\$7.50	\$9.41	\$0.00	\$91.29
	10/1/2027	\$59.83	\$14.55	\$7.50	\$9.41	\$0.00	\$91.29
	1/1/2028	\$59.83	\$15.50	\$7.55	\$9.41	\$0.00	\$92.29

Apprentice: SPRINKLER FITTER							
Effective Date: 1/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	43.00	\$26.94	\$9.64	\$0.00	\$0.00	\$0.00	\$36.58
2	48.00	\$30.08	\$9.64	\$0.00	\$0.00	\$0.00	\$39.72
3	52.00	\$32.58	\$13.60	\$7.45	\$1.15	\$0.00	\$54.78
4	56.00	\$35.09	\$13.60	\$7.45	\$1.15	\$0.00	\$57.29
5	59.00	\$36.97	\$13.60	\$7.45	\$1.40	\$0.00	\$59.42
6	64.00	\$40.10	\$13.60	\$7.45	\$1.40	\$0.00	\$62.55
7	68.00	\$42.61	\$13.60	\$7.45	\$1.40	\$0.00	\$65.06
8	72.00	\$45.12	\$13.60	\$7.45	\$1.40	\$0.00	\$67.57
9	76.00	\$47.62	\$13.60	\$7.45	\$1.40	\$0.00	\$70.07
10	80.00	\$50.13	\$13.60	\$7.45	\$1.40	\$0.00	\$72.58

Apprentice: SPRINKLER FITTER							
Effective Date: 4/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	43.00	\$28.36	\$9.64	\$0.00	\$0.00	\$0.00	\$38.00
2	48.00	\$31.66	\$9.64	\$0.00	\$0.00	\$0.00	\$41.30
3	52.00	\$34.29	\$13.60	\$7.45	\$1.15	\$0.00	\$56.49
4	56.00	\$36.93	\$13.60	\$7.45	\$1.15	\$0.00	\$59.13
5	59.00	\$38.91	\$13.60	\$7.45	\$1.40	\$0.00	\$61.36
6	64.00	\$42.21	\$13.60	\$7.45	\$1.40	\$0.00	\$64.66
7	68.00	\$44.85	\$13.60	\$7.45	\$1.40	\$0.00	\$67.30
8	72.00	\$47.48	\$13.60	\$7.45	\$1.40	\$0.00	\$69.93
9	76.00	\$50.12	\$13.60	\$7.45	\$1.40	\$0.00	\$72.57
10	80.00	\$52.76	\$13.60	\$7.45	\$1.40	\$0.00	\$75.21

**Apprentice to Journeyworker Ratio: 1:1**

STEAM BOILER OPERATOR	12/1/2025	\$58.02	\$16.55	\$13.35	\$3.25	\$0.00	\$91.17
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$59.30	\$16.55	\$13.35	\$3.25	\$0.00	\$92.45
OPERATING ENGINEERS LOCAL 4	12/1/2026	\$60.74	\$16.55	\$13.35	\$3.25	\$0.00	\$93.89

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

**Construction**

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
TAMPERS, SELF-PROPELLED OR TRACTOR DRAWN OPERATING ENGINEERS LOCAL 4	12/1/2025	\$58.02	\$16.55	\$13.35	\$3.25	\$0.00	\$91.17
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$59.30	\$16.55	\$13.35	\$3.25	\$0.00	\$92.45
OPERATING ENGINEERS LOCAL 4	12/1/2026	\$60.74	\$16.55	\$13.35	\$3.25	\$0.00	\$93.89

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

TERRAZZO FINISHERS	2/1/2026	\$66.89	\$12.84	\$15.57	\$8.02	\$0.00	\$103.32
BRICKLAYERS LOCAL 3	8/1/2026	\$69.09	\$12.84	\$15.57	\$8.02	\$0.00	\$105.52
BRICKLAYERS LOCAL 3 - MARBLE & TILE	2/1/2027	\$70.49	\$12.84	\$15.57	\$8.02	\$0.00	\$106.92

Apprentice: TERRAZZO FINISHERS							
Effective Date: 2/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$33.45	\$12.84	\$15.57	\$8.02	\$0.00	\$69.88
2	60.00	\$40.13	\$12.84	\$15.57	\$8.02	\$0.00	\$76.56
3	70.00	\$46.82	\$12.84	\$15.57	\$8.02	\$0.00	\$83.25
4	80.00	\$53.51	\$12.84	\$15.57	\$8.02	\$0.00	\$89.94
5	90.00	\$60.20	\$12.84	\$15.57	\$8.02	\$0.00	\$96.63

Apprentice: TERRAZZO FINISHERS							
Effective Date: 8/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$34.55	\$12.84	\$15.57	\$8.02	\$0.00	\$70.98
2	60.00	\$41.45	\$12.84	\$15.57	\$8.02	\$0.00	\$77.88
3	70.00	\$48.36	\$12.84	\$15.57	\$8.02	\$0.00	\$84.79
4	80.00	\$55.27	\$12.84	\$15.57	\$8.02	\$0.00	\$91.70
5	90.00	\$62.18	\$12.84	\$15.57	\$8.02	\$0.00	\$98.61

**Apprentice to Journeyworker Ratio: 1:5**

TEST BORING DRILLER LABORERS	12/1/2025	\$51.95	\$10.65	\$9.75	\$9.80	\$0.00	\$82.15
LABORERS - FOUNDATION AND MARINE	6/1/2026	\$53.50	\$10.65	\$9.75	\$9.80	\$0.00	\$83.70
LABORERS - FOUNDATION AND MARINE	12/1/2026	\$55.00	\$10.65	\$9.75	\$9.80	\$0.00	\$85.20

For apprentice rates see "Apprentice- LABORER"

TEST BORING DRILLER HELPER LABORERS	12/1/2025	\$48.07	\$10.65	\$9.75	\$9.80	\$0.00	\$78.27
LABORERS - FOUNDATION AND MARINE	6/1/2026	\$49.62	\$10.65	\$9.75	\$9.80	\$0.00	\$79.82
LABORERS - FOUNDATION AND MARINE	12/1/2026	\$51.12	\$10.65	\$9.75	\$9.80	\$0.00	\$81.32

For apprentice rates see "Apprentice- LABORER"

TEST BORING LABORER LABORERS	12/1/2025	\$47.95	\$10.65	\$9.75	\$9.80	\$0.00	\$78.15
LABORERS - FOUNDATION AND MARINE	6/1/2026	\$49.50	\$10.65	\$9.75	\$9.80	\$0.00	\$79.70
LABORERS - FOUNDATION AND MARINE	12/1/2026	\$51.00	\$10.65	\$9.75	\$9.80	\$0.00	\$81.20

For apprentice rates see "Apprentice- LABORER"

TRACTORS/PORTABLE STEAM GENERATORS OPERATING ENGINEERS LOCAL 4	12/1/2025	\$58.02	\$16.55	\$13.35	\$3.25	\$0.00	\$91.17
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$59.30	\$16.55	\$13.35	\$3.25	\$0.00	\$92.45

**Construction**

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
OPERATING ENGINEERS LOCAL 4	12/1/2026	\$60.74	\$16.55	\$13.35	\$3.25	\$0.00	\$93.89
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
TRAILERS FOR EARTH MOVING EQUIPMENT	1/1/2026	\$41.82	\$16.17	\$21.78	\$0.00	\$0.00	\$79.77
TEAMSTERS JOINT COUNCIL NO. 10	6/1/2026	\$42.82	\$16.17	\$21.78	\$0.00	\$0.00	\$80.77
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	12/1/2026	\$42.82	\$16.17	\$23.52	\$0.00	\$0.00	\$82.51
	1/1/2027	\$42.82	\$16.77	\$23.52	\$0.00	\$0.00	\$83.11
TUNNEL WORK - COMPRESSED AIR	12/1/2025	\$60.18	\$10.65	\$9.75	\$10.25	\$0.00	\$90.83
LABORERS	6/1/2026	\$61.73	\$10.65	\$9.75	\$10.25	\$0.00	\$92.38
LABORERS (COMPRESSED AIR)	12/1/2026	\$63.23	\$10.65	\$9.75	\$10.25	\$0.00	\$93.88
For apprentice rates see "Apprentice- LABORER"							
TUNNEL WORK - COMPRESSED AIR (HAZ. WASTE)	12/1/2025	\$62.18	\$10.65	\$9.75	\$10.25	\$0.00	\$92.83
LABORERS	6/1/2026	\$63.73	\$10.65	\$9.75	\$10.25	\$0.00	\$94.38
LABORERS (COMPRESSED AIR)	12/1/2026	\$65.23	\$10.65	\$9.75	\$10.25	\$0.00	\$95.88
For apprentice rates see "Apprentice- LABORER"							
TUNNEL WORK - FREE AIR	12/1/2025	\$52.25	\$10.65	\$9.75	\$10.25	\$0.00	\$82.90
LABORERS	6/1/2026	\$53.80	\$10.65	\$9.75	\$10.25	\$0.00	\$84.45
LABORERS (FREE AIR TUNNEL)	12/1/2026	\$55.30	\$10.65	\$9.75	\$10.25	\$0.00	\$85.95
For apprentice rates see "Apprentice- LABORER"							
TUNNEL WORK - FREE AIR (HAZ. WASTE)	12/1/2025	\$54.25	\$10.65	\$9.75	\$10.25	\$0.00	\$84.90
LABORERS	6/1/2026	\$55.80	\$10.65	\$9.75	\$10.25	\$0.00	\$86.45
LABORERS (FREE AIR TUNNEL)	12/1/2026	\$57.30	\$10.65	\$9.75	\$10.25	\$0.00	\$87.95
For apprentice rates see "Apprentice- LABORER"							
VAC-HAUL	1/1/2026	\$41.24	\$16.17	\$21.78	\$0.00	\$0.00	\$79.19
TEAMSTERS JOINT COUNCIL NO. 10	6/1/2026	\$42.24	\$16.17	\$21.78	\$0.00	\$0.00	\$80.19
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	12/1/2026	\$42.24	\$16.17	\$23.52	\$0.00	\$0.00	\$81.93
	1/1/2027	\$42.24	\$16.77	\$23.52	\$0.00	\$0.00	\$82.53
VOICE-DATA-VIDEO TECHNICIAN	9/7/2025	\$36.12	\$14.98	\$13.94	\$3.97	\$0.00	\$69.01
ELECTRICIANS LOCAL 96	9/6/2026	\$37.04	\$15.96	\$14.20	\$4.07	\$0.00	\$71.27
ELECTRICIANS LOCAL 96							

Apprentice: VOICE-DATA-VIDEO TECHNICIAN							
Effective Date: 9/7/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$18.06	\$14.98	\$0.54	\$3.97	\$0.00	\$37.55
2	55.00	\$19.87	\$14.98	\$0.60	\$3.97	\$0.00	\$39.42
3	60.00	\$21.67	\$14.98	\$13.51	\$3.97	\$0.00	\$54.13
4	65.00	\$23.48	\$14.98	\$13.56	\$3.97	\$0.00	\$55.99
5	70.00	\$25.28	\$14.98	\$13.62	\$3.97	\$0.00	\$57.85
6	75.00	\$27.09	\$14.98	\$13.67	\$3.97	\$0.00	\$59.71
7	80.00	\$28.90	\$14.98	\$13.73	\$3.97	\$0.00	\$61.58
8	85.00	\$30.70	\$14.98	\$13.78	\$3.97	\$0.00	\$63.43



**Additional Apprentice Information**

All apprentices must be registered with the Division of Apprenticeship Training(DAS) in accordance with M.G.L.c. 23, §§ 11E-11L. Minimum wage rates for apprentices employed on public works projects are listed above as a percentage of the hourly prevailing wage rate established by the Commissioner under the provisions of M.G.L.c. 149, §§ 26-27D.

Apprentice ratios are established by DAS pursuant to M.G.L.c. 23, §§ 11E-11L. Ratios are expressed as the allowable number of apprentices to journeymen or fraction thereof, unless otherwise specified. The ratios listed herein have been taken from relevant private collective bargaining agreements(CBAs) and are provided for illustrative purposes only. They have not been independently verified as being accurate or continuing to be accurate.

Parties having questions regarding what ratio to use should contact DAS.

SUPPLEMENT "C"

[X] CONSTRUCTION

SUPPLEMENT "C" - Applicable to Contracts for the construction of:

- (1) Public Buildings and Public Works (governed by the provisions of General Laws Chapter 30B);
- (2) Public Buildings (governed by the provisions of General Laws Chapter 149, § 44A, *et seq.*);  
and
- (3) Public Works (governed by the provisions of General Laws Chapter 30, §39M, *et seq.*)

1. This form supplements the Town's Contract and applies only to contracts for the construction, reconstruction, alteration, remodeling or repair of public works or public buildings.
2. Wherever the law requires one contracting with a city or town to be bonded, such obligation shall be understood to be a term and condition of this Contract. The Contractor agrees to secure such bonds (where required) in the form required by the Town and provide an original thereof to the Town prior to the commencement of performance.
3. Equality:
  - 3.1. In the case of a closed Specification written for a specific item or items to be furnished under the Base Bid, such specifications shall, as applicable, be in compliance with the Massachusetts General Laws, Chapter 30, Section 39M and Chapter 149, Section 44A *et seq.*
  - 3.2. Where the name of an item, material or manufacturer is mentioned in the Specifications or on the Drawings, except as above noted, the intent is to establish a standard and in no way should be construed to exclude any item or manufacturer not mentioned by name, but whose product meets the Specifications as to design, utility and quality. Final decision shall rest solely with the Town's Project Representative (herein after "Project Representative") as to its acceptability.
4. Change Orders:
  - 4.1. Change orders must receive the approval of the Town Administrator and the appropriate Department or Division Head and must be supported by the project engineers and architects, if any.
  - 4.2. Change orders to contracts governed by Massachusetts General Laws, Chapter 30B may not increase the quantity of goods or services provided by more than twenty-five percent (25%), in compliance with Section 13 of Chapter 30B.
5. The Contractor will carry out the obligations of this contract in full compliance with all of the requirements imposed by or pursuant to Massachusetts General Laws Chapter 151, Section 1, *et*

*seq.* (Minimum Wage Law) and any executive orders, rules, regulations, and requirements of the Commonwealth of Massachusetts as they may from time to time be amended. The Contractor will at all times comply with the wage rates as determined by the Commissioner of the Department of Labor and Industries, under the provisions of Massachusetts General Laws Chapter 149, Sections 26 and 27D (Prevailing Wage), as shall be in force and as amended.

6. The Contractor shall continuously maintain adequate protection of all work from damage and shall protect the property of the Town and others, including adjacent property, from injury or loss arising in connection with the Contract. The Contractor shall make good any such damage, injury or loss, except as may be directly due to errors in the Contract Documents or caused by agents or employees of the Town, or due to causes beyond the Contractor's control and not the Contractor's fault or negligence.
7. The Contractor shall take all necessary precautions for the safety of employees on the work, and shall comply with all applicable provisions of Federal, State and local laws and codes to prevent accidents or injury to persons on, about or adjacent to the premises where the work is being performed. The Contractor will erect and properly maintain at all times, as required by the conditions and progress of the work, all necessary safeguards for the protection of workers and the public, shall post danger signs warning against the hazards created by such features of construction such as pits, protruding nails, hosts, well holes, elevator hatchways, scaffolding, window openings, stairways and falling materials; and shall designate a responsible member of its organization on the work, whose duty shall be the prevention of accidents.
8. The Town shall at all times have access to the work wherever it is in preparation or progress and the Contractor shall provide suitable accommodations for such access.
9. The Contractor shall appoint a competent superintendent and foreman and any necessary assistants, all of whom shall be satisfactory to the Town. If the Town in its sole discretion determines that the construction superintendent, foreman, or assistants are unacceptable to the Town, then upon seven days' notice from the Town, the Contractor shall replace such person or persons with people acceptable to the Town.
10. The Contractor shall give efficient supervision to the work, using its best skill and attention. The Contractor shall carefully study and compare the drawings, specifications and other instructions and shall at once report to the Town any error, inconsistency or omission which shall be discovered. Included in this responsibility shall be supervision of all work performed by subcontractors on the work.
11. Notwithstanding any other provision of this Contract to the contrary, if the Contractor should neglect to prosecute the work properly, or fail to perform the contract or any of its provisions, the Town, upon three days' written notice, may, without prejudice to any other remedy it may have, make good such deficiencies and may deduct the cost thereof from the payment then or thereafter due the Contractor.
12. Inspection by the Town's Project Representative
  - 12.1. The Town shall have the right to designate a Project Representative who may make periodic visits to the site to familiarize the Town generally with the progress and quality

of the work, and to determine in general if the work is proceeding in accordance with the Contract Documents. The Project Representative will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the work, and will not be responsible for the Contractor's failure to carry out the construction work in accordance with the Contract Documents. During such visits and on the basis of these observations while at the site, the Project Representative will keep the Town informed on the progress of the work, will endeavor to guard the Town against defects and deficiencies in the work of contractors, and may condemn structural work as failing to conform to the Contract Documents. The Project Representative shall have authority to act on behalf of the Town only to the extent expressly delegated by the Town, which shall be shown to the Contractor, and shall have authority to stop the work whenever such stoppage may reasonably be necessary to insure the proper execution of the Contract.

- 12.2. In connection with the work, the Project Representative shall not be responsible for construction methods, means, techniques, sequences or procedures employed by the Contractor or the Contractor's safety programs, requirements, regulations, or precautions.

13. Decisions of the Project Representative

- 13.1. The Project Representative shall, within a reasonable time, make decisions on all claims of the Town or the Contractor and on all other matters relating to the execution and progress of the structural work or the interpretation of the Contract Documents.
- 13.2. The Project Representative's decision, in matters relating to the project, shall be final, if within the terms of the Contract Documents.
- 13.3. If, however, the Project Representative fails to render a decision within ten days after the parties have presented their evidence, either party may then avail itself of the remedies provided in this Contract or available to it by law. If the Project Representative renders a decision after such remedies have commenced, such decision may be entered as evidence but shall not disturb or interrupt such proceedings except where such decision is acceptable to the parties concerned.

14.1 Use of Premises by the Contractor:

- 14.1. The Contractor shall confine its apparatus, the storage of materials and the operations of its workmen to limits indicated by law, by-laws, permits or directions of the Town and shall not unreasonably encumber the premises with its materials.
- 14.2. The Contractor shall not load or permit any part of the structure to be loaded with a weight that will endanger its safety.

15. Maintenance of Premises:

The Contractor shall at all times keep the premises free from accumulation of waste materials or rubbish caused by its employees or work, and at the completion of the work it shall remove all its rubbish from and about the work site and all its tools, scaffolding and surplus materials and shall

leave its work "broom-clean", or its equivalent, unless more exactly specified. In case of dispute, the Town may remove the rubbish and charge the cost to the several contractors, as the Town shall determine to be just.

16. Right to Terminate

16.1 In addition to any other remedies herein provided and notwithstanding any other provisions hereof to the contrary, if the Contractor should (1) be adjudged a bankrupt, (2) make a general assignment for the benefit of creditors, (3) have a receiver appointed on account of its insolvency, (4) persistently or repeatedly refuse or fail to supply enough personnel and resources to perform the contract, (5) fail to make prompt payment to subcontractors or to providers of materials or labor, (6) persistently disregard laws and regulations or lawful directives of the Town, or (7) be guilty of a substantial violation of any provision of the Contract, then the Town may, without prejudice to any other right or remedy and after giving the Contractor (or any surety) seven (7) days' written notice, terminate the contract and the employment of the Contractor and take possession of the premises and of all materials, tools and appliances thereon and finish the work by whatever method it deems appropriate.

16.2 In such cases, the Contractor shall not be entitled to receive any further payment until the work is finished. If the unpaid amount owed to the Contractor for work already completed shall exceed the expense of finishing the work, including compensation for additional architectural, managerial, legal and administrative services, such excess shall be paid to the Contractor. If such expenses shall exceed such unpaid balances, the Contractor shall pay the difference to the Town.

16.3 The Contractor shall not be relieved of liability to, or duty to indemnify, the Town by virtue of any termination of this Contract, and any claim for damages against the Contractor relating to the Contractor's performance under this contract shall survive any termination hereunder.

Notwithstanding any other provision of this Contract, the Town reserves the right at any time in its absolute discretion to suspend or terminate this Contract in whole or in part for its convenience upon seven (7) days' written notice to the Contractor. The Town shall incur no liability by reason of such termination except for the obligation to pay compensation for all work performed by the Contractor and accepted by the Town to the termination date.

17. Progress Payments:

17.1. The Contractor shall, before the first application for payment, submit to the Town a schedule of values of the various parts of the work, including quantities aggregating the total sum of the Contract, divided so as to facilitate payments to Subcontractors, made out in such form as the Town and the Contractor may agree upon, and, if required, supported by such evidence as to its correctness. This schedule, when approved by the Town, shall be used as a basis for payment, unless it is found to be in error. If applying for payments, the Contractor shall submit a statement based upon this schedule.

- 17.2. The Contractor shall submit to the Town an itemized Application for Payment, supported to the extent required by the Town by invoices or other vouchers, showing payments for materials and labor, payments to Subcontractors and such other evidence of the Contractor's right to payment.
- 17.3 Subject to other provisions of the Contract Documents, the amount of each progress payment shall be computed as follows:
  - .1 Take that portion of the Contract Sum properly allocable to completed Work as determined by multiplying the percentage completion of each portion of the Work by the share of the Contract Sum allocated to that portion of the Work in the schedule of values, less retainage of five percent (5 %). Pending final determination of cost to the Owner of changes in the Work, amounts not in dispute shall be included;
  - .2 Add that portion of the Contract Sum properly allocable to materials and equipment delivered and suitably stored at the site for subsequent incorporation in the completed construction (or, if approved in advance by the Owner, suitably stored off the site at a location agreed upon in writing), less retainage of 5 percent (5 %);
  - .3 Subtract the aggregate of previous payments made by the Town; and
  - .4 Subtract amounts, if any, for which the Town has withheld or nullified a Certificate for Payment as provided in Section 18, below.

18. Withholding of Payments

- 18.1. The Town may withhold or, on account of subsequently discovered evidence, nullify the whole or part of any payment to such extent as may be necessary in its reasonable opinion to protect the Town from loss on account of:
  - 18.1.1. Defective work not remedied.
  - 18.1.2. Claims filed or reasonable evidence indicating probable filing of claims.
  - 18.1.3. Failure of the Contractor to make payments properly to Subcontractors or for material or labor.
  - 18.1.4. A reasonable doubt that the Contract can be completed for the balance then unpaid.
  - 18.1.5. Damage to another contractor.
  - 18.1.6. Delays resulting in liquidated damages.
- 18.2. Withholding of payments shall be in strict compliance with statutory requirements.

19. Claims by Contractor and Liability of Town

19.1 All claims by the Contractor against the Town shall, unless otherwise provided by law, be initiated by a written claim submitted to the Town no later than seven (7) calendar days' after the event or the first appearance of the circumstances causing the claim. The claim shall set forth in detail all known facts and circumstances supporting the claim. The Contractor shall continue its performance under this contract regardless of the submission or existence of any claims.

19.2 The limit of liability of the Town under this Contract is limited to the compensation provided herein for work actually performed, and shall in no event include liability for delays or for incidental, special or consequential damages or lost profits or for damages or loss from causes beyond the Town's reasonable control.

20. Damages for Delay:

The Contractor shall have no claims for any damages, costs, or expenses of any kind or nature, for any suspension, delay, interruption, frustration, obstruction, hindrance, interference, compression or acceleration of the work on the part of the Town, architect, or any of their consultants in performing or furnishing any work, or resulting from problems or deficiencies with materials, information, or documentation and/or decisions in connection with the execution of the work. Except as otherwise provided by applicable law, the Contractor's sole remedy for such delay shall be for a claim for an extension of time to the time for contract performance.

21. Liquidated Damages:

Because both parties recognize (1) that the time for completion of this Contract is of the essence, (2) that the Town will suffer loss if the work is not completed within the contract time specified, plus any extension thereof allowed in accordance with the provisions of this contract, and (3) the delays, expense and difficulties involved in a legal proceeding to determine the actual loss suffered by the Town if the work is not completed in time, it is agreed that the Contractor will pay the Town as liquidated damages representing an estimate of delay damages to which the Contractor agrees by entering into this Contract, not as a penalty, the sum of One Thousand Dollars (\$1,000) per day for each calendar day of delay until the work is completed, whether the work is completed by the Contractor or some other person. The Town's right to impose liquidated damages shall in no way prohibit or restrict the Town's right to bring a legal action for damages in lieu of or in addition to its option to impose liquidated damages. The Town may deduct any liquidated damages from money due the Contractor, and if such payment is insufficient to cover the liquidated damages, then the Contractor shall pay the amount due.

22. The Contractors' Mutual Responsibility:

Should the Contractor cause damage to any separate subcontractor on the work, the Contractor agrees, upon due notice, to settle with such contractor by agreement, or by recourse to remedies provided by law or by the provisions of the contract. If such separate contractor sues the Town on account of any damage alleged to have been sustained, the Town shall notify the Contractor,

who shall defend such proceedings at the Town's expense and, if any judgment against the Town arises therefrom, the Contractor shall pay or satisfy it and pay all costs incurred by the Town including attorney's fees and related costs of litigation.

23. Separate Contracts:

23.1. The Town reserves the right to let other Contracts in connection with this work under similar General Conditions. The Contractor shall afford other contractors reasonable opportunity for the introduction and storage of their materials and the execution of their work, and shall properly connect and coordinate its work with theirs.

23.2. If any part of the Contractor's work depends, for proper execution or results, upon the work of any other contractor, the Contractor shall inspect and promptly report to the Town any defects in such work that render it unsuitable for such proper execution and results. Failure of the Contractor to so inspect and report shall constitute an acceptance of the other contractor's work as fit and proper for the reception of its work except as to defects which may develop in the other contractor's work after the execution of its work.

23.3. To ensure the proper execution of its subsequent work, the Contractor shall measure work already in place and shall at once report to the Town any discrepancy between the executed work and the Drawings.

24. Subcontracts:

24.1. All Subcontracts shall be awarded in conformity with the requirements of the General Laws, Commonwealth of Massachusetts, Chapter 149, Sections 44A to 44L, inclusive.

24.2. The Contractor agrees that it is as fully responsible to the Town for the acts and omissions of its Subcontractors and of persons either directly or indirectly employed by them, as it is for the acts and omissions of persons directly employed by it.

24.3. Nothing contained in the Contract Documents shall create any contractual relationship between any Subcontractor and the Town.

25. Contractor-Subcontractor Relations:

The Contractor agrees to bind every Subcontractor and every Subcontractor agrees to be bound by the terms of the Agreement, the General Conditions of the Contract, the Supplementary General Conditions, the Drawings and Specifications, as far as applicable to its work, including the provisions of the General Laws, Commonwealth of Massachusetts, Chapter 149, Section 44A, et seq.

26. The Contractor's Insurance:

Notwithstanding any other provisions of this Contract to the Contrary and in addition to any requirements set forth in the Contract, the Contractor shall provide and maintain the following insurance:

26.1. The Contractor shall purchase and maintain such insurance as will protect the Contractor from claims set forth below which may arise out of or result from the Contractor's operations under the Contract, whether such operations be by itself or by any Subcontractor or by anyone directly or indirectly employed by any of them or by anyone for whose acts any of them may be liable.

26.2 Liability Insurance Requirements

In addition to the liability insurance requirements set forth in the Contract, the liability insurance shall include all major divisions and shall be on a comprehensive general basis including Premises and Operations, Owners and Contractor's Protective, Products and Completed Operations, and Owned, Non-owned and Hired Motor Vehicles. All such insurance shall be written for not less than any limits of liability required by law, unless otherwise provided in the Contract Documents. The Contractor's insurance shall include:

Excess Liability (Umbrella) \$3,000,000

Excess Liability (Umbrella) Insurance (Subcontractors) \$1,000,000, or 1.5 times the value of the subcontract, whichever is higher.

26.3. The above insurance policies shall also be subject to the following requirements:

26.3.1. Insurance coverage for the Contractor's Comprehensive General Liability, as hereinafter specified under Paragraph entitled "Protective Liability Insurance" shall be written by one and the same insurance company to avoid the expense of duplicate and/or overlapping coverage and to facilitate and expedite the settlement of claims.

26.3.2 All premium costs shall be included in the Contractor's bid.

27. Protective Liability Insurance:

27.1. The Contractor shall purchase and maintain such insurance as described in the preceding paragraph as will protect the Town from claims which may arise from operations under the Contract, including operations performed for the named insureds by independent contractors and general inspection thereof by the named insureds.

27.2. The Contractor shall also purchase and maintain such insurance as will protect the Town against Automobile Non-Ownership Liability in connection with the Contractor's operations under the Contract, whether such operations be by itself or by any Subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable.

27.3. The limits of liability for coverage required under the Contract shall be as specified within the Contract Documents.

27.4. The Town shall be named as an additional insured on the above referenced liability Policies, and the Contractor's insurance shall be the primary coverage. The cost of such

insurance, including required endorsements and amendments, shall be the sole responsibility of the Contractor.

28. Liens:

Neither the Final Payment nor any part of the retained percentage shall become due until the Contractor, if required, shall deliver to the Town a complete release of all liens arising out of the Contract, or receipts in full in lieu thereof and, if required in either case, an affidavit that as far as it has knowledge or information, the releases and receipts include all the labor and material for which a lien could be filed. The Contractor shall comply with all statutory provisions of the Massachusetts General Laws with regard to liens, Chapter 254 and 149 as amended (as a minimum requirement).

29. Guarantees:

29.1 The Contractor guarantees and warrants to the Town that all labor furnished under this Contract will be competent to perform the tasks undertaken, that the product of such labor will yield only first-class results, that materials and equipment furnished will be of good quality, new, and of recent manufacture unless otherwise permitted by this Contract, and that the Work will be of good quality, free from faults and defects and in strict conformance with this Contract. All Work not conforming to these requirements may be considered defective.

29.2. If at any time any part of the work constructed under the terms of this contract shall in the opinion of the Town Administrator require repairing due to defective work or materials furnished by the Contractor, he may notify the Contractor in writing to make the required repairs. If the Contractor shall neglect to start such repairs within ten days of the date of giving it notice thereof and to complete the same to the satisfaction of the Town Administrator with reasonable dispatch, then the latter may employ other persons to make such repairs. The Town shall charge the expense thereof to the Contractor and may use any monies still retained to pay for the same, and if such sum is insufficient, the Contractor shall be obligated to pay the balance thereof.

29.3. All guarantees and warranties required in the various Sections of the Specifications which originate with a Subcontractor or Manufacturer must be delivered to the Town before final payment to the Contractor may be made for the amount of that subtrade or for the phase of work to which the guarantee or warranty relates. The failure to deliver a required guarantee or warranty shall be held to constitute a failure of the Subcontractor to fully complete his work in accordance with the Contract Documents. The Contractor's obligation to correct work is in addition to, and not in substitution of, such guarantees or warranties as may be required in the various Sections of the Specifications.