

Town of Uxbridge
Department of Public Works
Ironstone Road, Carney Street, and
Aldrich Street Bridge Preservations

*Contract No. 2024-12
September, 2024*

Bidding Requirements, Bond Forms, Contract Agreement,
Conditions of the Contract, Drawings, and Technical Specifications

Professional Registration No.: MA 47367



B E T A

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SECTION 00100

NOTICE TO BIDDERS

Town of Uxbridge, Massachusetts

Ironstone Road, Carney Street, and Aldrich Street Bridge Preservations

CONTRACT NO. 2024-12

The Town of Uxbridge, Massachusetts, acting through its Department of Public Works invites sealed bids for "Town of Uxbridge, Massachusetts, Contract No. 2024-12", in accordance with the Contract Documents prepared by BETA GROUP, INC., Consulting Engineers, 701 George Washington Highway, Lincoln, RI 02865.

Bids will be received at the office of the Town of Uxbridge, Department of Public Works, 147 Hecla Street, Uxbridge, Massachusetts 01569 until 10:00 AM local time on October 11, 2024, at which time and place, said Bids will be publicly opened and read aloud.

The location, general characteristics, and principal details of the Work are indicated in three sets of Drawings, entitled "Ironstone Road Bridge Preservation", "Carney Street Bridge Preservation", and "Aldrich Street Bridge Preservation".

The work to be done under this contract consists of furnishing all necessary labor, materials and equipment required for the preservation of the Ironstone Road, Carney Street, and Aldrich Street Bridges, including roadway reconstruction. The work includes stone masonry wall repairs, concrete wall and deck slab repairs, demolition and reconstruction of reinforced concrete wingwalls, installation of reinforced concrete moment slabs, installation of bridge and approach guardrail, removal of vegetation, removal of river channel debris, full depth pavement reconstruction, concrete sidewalk reconstruction, pavement markings and the provision of safety controls and signing for construction operations and other incidental items included in the contract documents necessary to complete the Project.

To bid on this project, Contractors must be prequalified in accordance with 720 CMR 5.00, *Prequalification of Contractors* by MassDOT in the category of Highway-Construction with an estimated value of \$1,378,105.

Bid Security: Certified, treasurer's or cashier's check or bid bond in the sum of five (5) percent of the Total Bid is required.

Construction shall be completed by June 30, 2025.

The Drawings and Contract Documents may be downloaded in Portable Document Format (PDF) free of charge at www.accentblueprints.com. Copies may be obtained for a fee by completing an order online or by calling 978-362-8038. Completed orders may be picked up at the office of Accent Printing located at 99 Chelmsford Road, North Billerica, MA 01862 from 9 AM to 4 PM. Copies may also be shipped to prospective bidders for an additional charge to cover handling and mailing fees. All payments form printing

and shipping are nonrefundable. For addition to the project plan holder's list to guarantee receipt of addenda, it is recommended interested bidders obtain the Contract Documents directly from Accent Printing. Interested bidders will be prompted to register an email address with Accent to access the documents.

Direct all inquiries to Todd Warzecki, P.E, BETA Group, Inc., 701 George Washington Highway, Lincoln, RI 02865. Telephone: 401-333-2382, Email: TWarzecki@BETA-inc.com

All Bids for this project are subject to applicable bidding laws of Massachusetts, including General Laws Chapter 30, Section 39M as amended.

Attention of bidders is particularly called to the requirements as to conditions of employment to be observed and minimum wage rates to be paid under this Contract as determined by the Department of Labor and Industries under provisions of the Massachusetts General Laws Chapter 149, Section 26-27, inclusive, as amended.

No Bidder may withdraw his bid within Ninety (90) days after the actual date of the opening thereof.

The successful Bidder must furnish 100 percent Performance and Labor and Materials Bonds.

The Owner and Engineer, being considered the sole and only judge, reserves the right to waive any informality in, or to reject, any or all bids, should the Owner deem it to be in the owner's best interest to do so.

Town of Uxbridge, Massachusetts,

Department of Public Works

END OF SECTION

SECTION 00200

INFORMATION FOR BIDDERS

- 1.01 Receipt and Opening of Bids
- 1.02 Location and Work to be Done
- 1.03 Contract Documents
- 1.04 Payments for Drawings and Documents
- 1.05 Questions Regarding Drawings and Documents
- 1.06 Pre-Bid Conference
- 1.07 Bidders to Investigate
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1.01 RECEIPT AND OPENING OF BIDS

- A. The Town of Uxbridge, Massachusetts, herein called the Owner, acting through its Department of Public Works invites sealed bids for **“Town of Uxbridge, Massachusetts, Department of Public Works, Ironstone Road, Carney Street, and Aldrich Street Bridge Preservations, Contract No. 2024-12”**, in accordance with the Contract Documents prepared by BETA Group, Inc., Consulting Engineers, 315 Norwood Park South, Norwood, Massachusetts, 02062.

- B. Such Bids, submitted in sealed envelopes plainly marked in the upper left hand corner with the Bidder's name and address, plainly marked in the lower left hand corner with the date and time of opening, addressed to:

**Town of Uxbridge, Department of Public Works
147 Hecla Street
Uxbridge, Massachusetts, 01569
Attention: Mr. Benn Sherman, Director of Public Works**

Endorsed: **"Ironstone Road, Carney Street, and Aldrich Street
Bridge Preservations, Contract No. 2024-12"**.

Delivered by: **10:00 A.M. local time on October 11th, 2024**

at which time and place, said Bids will be publicly opened and read aloud.

- C. The Owner may consider informal, any bid not prepared and submitted in accordance with the provisions hereof and may waive any informalities in or reject any and all Bids. Conditional or qualified Bids will not be accepted. Any Bid received after the time and date specified shall not be considered. Should there be reasons why the Contract cannot be awarded within the specified period, the time may be extended by mutual agreement between the Owner and the Bidder.

1.02 LOCATION AND WORK TO BE DONE

- A. The location, general characteristics, and principal details of the Work are indicated in three sets of Drawings, entitled "Ironstone Road Bridge Preservation", "Carney Street Bridge Preservation", and "Aldrich Street Bridge Preservation".
- B. Additional drawings showing details in accordance with which the Work is to be done will be furnished from time to time by the Engineer, if found necessary, and shall then become part of the Drawings.
- C. The Contractor shall furnish all labor, services, materials, equipment, plant machinery, apparatus, appliances, tools, supplies and all other things necessary to perform all work required for the completion of each item of the Work and as herein specified.
- D. The Work to be done and paid for under any item shall not be limited to the exact extent mentioned or described, but shall include all incidental work necessary or customarily done for the completion of that item.

1.03 CONTRACT DOCUMENTS

- A. The Contract Documents, INFORMATION FOR BIDDERS, SPECIFICATIONS, and forms for BID, AGREEMENT, and BONDS may be downloaded in Portable Document Format (PDF) free of charge at www.accentblueprints.com.

1.04 PAYMENT FOR DRAWINGS AND DOCUMENTS

- A. The Drawings and Contract Documents may be downloaded for free at www.accentblueprints.com. Copies may be obtained for a fee by completing an order online or by calling 978-362-8038. Completed orders may be picked up at the office of Accent Printing located at 99 Chelmsford Road, North Billerica, MA 01862 from 9 AM to 4 PM. Copies may also be shipped to prospective bidders for an additional charge to cover handling and mailing fees. All payments for printing and shipping are nonrefundable. In addition to the project plan holder's list to guarantee receipt of addenda, it is recommended interested bidders obtain the Contract Documents directly from Accent Printing. Interested bidders will be prompted to register an email address with Accent to access the documents.

1.05 QUESTIONS REGARDING DRAWINGS AND DOCUMENTS

- A. In general, no answer will be given to prospective bidders in reply to an oral question of the intent or meaning of the Drawings or other Contract Documents, or the equality or use of products or methods other than those designated or described on the Drawings or in the Specifications. Any information given to bidders other than by means of the Drawings and other Contract Documents, including Addenda, as described below, is given informally, for information and the convenience of the bidder only and is not guaranteed. The bidder agrees that such information shall not be used as the basis of nor shall the giving of any such information entitle the bidder to assert any claim or demand against the Owner or the Engineer on account thereof.
- B. To receive consideration, such questions shall be submitted in writing or faxed to the Engineer (for this purpose, Todd Warzecki, P.E., BETA Group, Inc., 701 George Washington Highway, Lincoln, RI 02865, Telephone No. (401) 333-2382, Fax No. (401) 333-9225, Email: TWarzecki@beta-inc.com) at least seven calendar days before the established date for receipt of Bids. If the question involves the equality or use of products or methods, it must be accompanied by drawings, specifications or other data in sufficient detail to enable the Engineer to determine the equality or suitability of the product or method. In general, the Engineer will neither approve nor disapprove particular products prior to the opening of Bids; such products will be considered when offered by the Contractor for incorporation into the Work.
- C. The Engineer will set forth as Addenda, which shall become a part of the Contract Documents, such questions received as above provided as in his sole judgment are appropriate or necessary and his decision regarding each. At least two (2) days prior to the receipt of Bids, he will send a copy of these Addenda to those prospective bidders known to have taken out sets of the Drawings and other Contract Documents.
- D. The Contractor agrees to use the products and methods designated or described in the Specifications as amended by the Addenda.

1.06 PRE-BID CONFERENCE

- A. There is no pre-bid conference for this project.

1.07 BIDDERS TO INVESTIGATE

- A. Bidders are required to submit their Bids upon the following express conditions, which shall apply to and be deemed a part of every Bid received, viz.:

- B. Bidders must satisfy themselves by personal examination of the Work and by such other means as they may wish, as to the actual conditions there existing, the character and requirements of the Work and difficulties attendant upon its execution, and the accuracy of all estimated quantities stated in the Bid.

1.08 INFORMATION NOT GUARANTEED

- A. All information given on the Drawings or in the other Contract Drawings relating to subsurface and other conditions, natural phenomena, existing pipes and other structures is from the best sources at present available to the Owner. All such information is furnished only for the information and convenience of bidders and is not guaranteed.
- B. It is agreed and understood that the Owner does not warrant or guarantee that the subsurface or other conditions, natural phenomena, existing pipes or other structures encountered during construction will be the same as those indicated on the Drawings or in the other Contract Documents.
- C. It is agreed further and understood that no bidder or Contractor shall use or be entitled to use any of the information made available to him or obtained in any examination made by him in any manner as a basis of or ground for any claim or demand against the Owner or the Engineer, arising from or by reason of any variance which may exist between the information made available and the actual subsurface or other conditions, natural phenomena, existing pipes or other structures actually encountered during the construction work, except as may otherwise be expressly provided for in the Contract Documents.

1.09 CONDITIONS OF WORK

- A. Each bidder must inform himself fully of the conditions relating to the construction and labor under which the work is now or will be performed; failure to do so will not relieve the successful bidder of his obligation to furnish all materials and all labor necessary to carry out the provisions of the Contract Documents and to complete the contemplated Work for the consideration set forth in his bid. Insofar as possible, the Contractor, in the carrying out of his work, shall employ such methods or means as will not cause any interruption of or interference with: the operation of the existing sewer; traffic; use of existing facilities and utilities; locations of existing utilities and structures affecting the work or other similar conditions at the site; character of equipment and facilities needed preliminary to and during prosecution of the work; requirements of owners and controlling authorities, having jurisdiction over the various lands, existing structures, facilities, and utilities; and all other conditions affecting the work to be done, and the labor and materials needed; and he shall make his bid in sole reliance thereon; and shall not, at any time after submission of a bid, assert that there was any misunderstanding in regard to the nature or amount of the work to be done.

1.10 BLANK FORM FOR BID

- A. Each bid must be submitted on the prescribed form, accompanied by the Bid Security and any other requested information. All blank spaces for bid prices must be filled in, in ink or typewritten, both in words and numerical figures, and be signed by the bidder with his business address and place of residence. Where both written words and numerical figures are given, the written words shall apply in the event of conflict. All bids shall be prepared in conformity with, and based upon and submitted subject to, all requirements of the Specifications and Drawings, together with all addenda thereto.

- B. **Bidders shall remove and submit the Bid pages (section 00300) and Bid Bond pages (Section 00400) only. All pages shall be correctly assembled, and submitted in accordance with Section 00100.** All erasures or other changes in the Bid must be properly initialed by an authorized representative of the Bidder.

1.11 WITHDRAWAL OF BIDS

- A. Except as hereinafter in this subsection otherwise expressly provided, once his Bid is submitted and received by the Owner for consideration and comparison with other bids similarly submitted, the bidder agrees that he may not and will not withdraw it within Ninety (90) consecutive calendar days after the actual date of the opening of Bids.
- B. Upon proper written request and identification, Bids may be withdrawn only as follows:
 - 1. At any time prior to the designated time for the opening of Bids.
 - 2. Provided the Bid has not theretofore been accepted by the Owner, at any time subsequent to the expiration of the period during which the bidder has agreed not to withdraw his Bid.
- C. Unless a Bid is withdrawn as provided above, the bidder agrees that it shall be deemed open for acceptance until the AGREEMENT has been executed by both parties thereto or until the Owner notifies a bidder in writing that his Bid is rejected or that the Owner does not intend to accept it, or returns his Bid deposit. Notice of acceptance of a Bid shall not constitute rejection of any other Bid.

1.12 BID SECURITY

- A. Each bid must be accompanied by a certified check, treasurer's check or cashier's check issued by, a responsible bank or trust company and payable to the order of the Owner, or by a bid bond prepared on the form of BID BOND attached hereto duly executed and acknowledged by the bidder, as Principal, and by a surety company qualified to do business in the State of Massachusetts and satisfactory to the Owner, as Surety. The check or bid bond shall be in the sum of five (5) percent of the total bid and shall be enclosed in the sealed envelope containing the Bid.
- B. Each such check or bid bond may be held by the Owner as security for the fulfillment of the bidder's agreements as hereinabove set forth and as set forth in the BID. Should the bidder fail to fulfill such agreements, his bid check shall become the property of the Owner or if a bid bond was furnished, the bid bond shall become payable to the Owner, as liquidated damages; otherwise, the bid check shall be returned to the bidder as hereinafter provided, or if the security is a bid bond, the bid bond shall become null and void.
- C. Bid checks will be returned to all except the three lowest bidders within five days, Sundays and legal holidays excluded, after the opening of Bids, and to the three lowest bidders within five days, Sunday and legal holidays excluded, after the Owner and the accepted bidder have executed the AGREEMENT. In the event that the AGREEMENT has not been executed by both the accepted bidder and the Owner within 90 consecutive calendar days after the opening of Bids, the bid check will be returned promptly upon demand of any bidder who has not been notified of the acceptance of his Bid.
- D. Bid checks accompanying Bids, which are rejected, will be returned within five days, Sundays and legal holidays excluded, after rejection.

- E. None of the three lowest Bids shall be deemed rejected, notwithstanding acceptance of any Bid, until the AGREEMENT has been executed by both the Owner and the accepted bidder.

1.13 INTERESTED PARTIES TO CONTRACT

- A. The undersigned declares; that the only person interested this Bid as principals are named herein as such; that no official of the Owner and no person acting for or employed by the Owner is interested directly or indirectly in this Bid, or in any contract which may be made under it, or in any expected profits to arise therefrom; that this Bid is made in good faith, without fraud, collusion or connection with any other person bidding or refraining from bidding for the same work; that he has examined carefully the said instructions and all other documents bound herewith and the Contract Drawings relating to the Contract covered by this Bid and hereby makes them part of this Bid; that he has informed himself fully in regard to all conditions pertaining to the work and place where it is to be done; and that he has made his own examination and carefully checked his estimates for cost and from them makes this Bid.

1.14 ABILITY AND EXPERIENCE OF BIDDER

- A. **Contractors must be prequalified by the MassDOT Highway Division in the following classes of work: Highway-Construction, with a minimum MassDOT Single Class of Work Limit up to \$1,378,105.**
- B. No award will be made to any bidder who cannot satisfy the Owner that he has sufficient ability and experience in this class of work and sufficient capital and plant to enable him to prosecute and complete the Work successfully within the time named. The Engineer and the Owner may make such investigation as they deem necessary to determine the ability of the bidder to perform the work; and the bidder shall furnish to the Engineer and the Owner all such information and data for this purpose as the Engineer and the Owner may request.
- C. The Owner reserves the right to reject any bid if the evidence submitted by, or investigation of, such bidder fails to satisfy the Owner that such bidder is properly qualified to carry out the obligations of the Contract and to complete the Work contemplated therein within the time stated. The Owner's decision or judgment on these matters shall be final, conclusive, and binding for all parties involved.

1.15 BIDS

- A. The Owner reserves the right to waive any informalities in, or to reject any or all Bids which in its sole judgment are either incomplete, conditional, obscure, or not responsive or which contain additions not called for, erasures not properly initialed, alternative, or similar irregularities, or the Owner may waive such omissions, conditions, or irregularities as he may feel appropriate.
- B. Conditional bids will not be accepted. Bidder(s) will be disqualified if more than one proposal is received from an individual, firm, partnership, corporation or association, under the same or different names and such proposals will not be considered.
- C. The Owner reserves the right to reject any or all Bids, should the Owner deem it to be in the public interest to do so.

1.16 COMPARISON OF BID

- A. Bids will be compared on the basis of the experience and competence of the bidders and on the basis of the totals of the quantities listed in the proposal under the enumerated items at the unit prices or lump sums bid for these items. The Contract will be awarded to the lowest responsive, responsible and eligible bidder as determined by the Owner and/or its authorized representatives or agents. However, the Owner may reject any and all bids if it is in the public interest to do so.
- B. The term, "Lowest responsive, responsible and eligible bidder," shall mean the bidder whose bid is the lowest of those bidders possessing the skill, ability and integrity necessary for the faithful performance of the Work; who shall certify that he is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed in the work.
- C. Bids should be made on each separate item of work shown in the bid (proposal) with reasonable relation to the probable cost of doing the work included in such items. The Owner reserves the right to reject, wholly, any bid on which an item or items thereof are obviously unbalanced or appear to the Owner to be so unbalanced as to affect or to be liable to affect adversely any interests of the Owner. The attention of the bidder is called to the fact that unbalancing of bids may adversely affect the Contractor if certain portions for the Work are increased or decreased as provided in the Contract Documents.
- D. A bidder shall state the proposed price for the work by which the bids will be compared. This price is to cover all the expenses incidental to the completion of the work in full conformity with the Contract, Specifications, and Drawings. In the event that there is a discrepancy between the unit prices and the extended totals, the unit prices shall govern. In the event that there is a discrepancy between the lump-sum or unit prices written in words and numerical figures, the prices written in words shall govern. No bid will be accepted which does not contain a unit price or lump sum as indicated for each of the applicable items enumerated in the proposal form.

1.17 ITEMS AND INDETERMINATE ITEMS

- A. The Work to be done under this Contract has been divided into parts or items to enable each bidder to bid on different portions of the work in accordance with his estimate of their cost and so that the actual quantity of work executed under each item may be paid for at the price bid for that particular item, even though such quantity is greater or less than the estimated quantity stated in the BID.
- B. The quantities listed in the bid (proposal) are approximate. The Owner does not expressly or by implication represent that the actual amounts of work will even approximately correspond therewith, but does call particular attention to the uncertainty in the quantities of the work involved which cannot be predicted in advance. The work under certain items may be materially greater or less than those given in the Bid as may be necessary in the judgment of the Owner complete the work contemplated in the Contract. Attention is particularly called to the fact that the quantity of work to be done under some bid items may be largely dependent on subsurface ground conditions encountered and, therefore, the quantities of work to be done under the various items may vary substantially from the estimated quantities or may even be omitted.
- C. Certain items in the BID cover classes of work of doubtful necessity or work for which it is impractical to estimate approximate quantities. Such items have been marked "Indeterminate". Prices for certain of such items have been stipulated in advance by the Owner as stated in the BID.

- D. Only such quantities of the respective items of work actually performed and accepted will be paid for. An increase or decrease in quantity for any item shall not be regarded as grounds for an increase or decrease in the bid prices.

1.18 REDUCTION IN SCOPE OF WORK

- A. The Owner reserves the right to decrease the scope of the work to be done under this Contract and to omit any work in order to bring the cost within available funds. To this end, the Owner reserves the right to reduce the quantity of any items or omit all of any as set forth in the BID, either prior to executing the Contract or at any time during the progress of the Work. The Owner further reserves the right, at any time during the progress of the Work, to restore all or part of any items previously omitted or reduced. Exercise by the Owner of the above rights shall not constitute any ground or basis of claim for damages or for anticipated profits on the work omitted.

1.19 CONTRACT BONDS

- A. The Bidder whose Bid is accepted agrees to furnish the Contract Bonds in the forms which follow in Section 00600, titled CONTRACT BONDS, each in the sum of the full amount of the Bid and/or Contract Price as determined by the Engineer, and duly executed and acknowledged by the said bidder as Principal and by a surety company qualified to do business under the laws of Massachusetts and satisfactory to the Owner, as Surety, for the faithful performance of the contract and payment for labor and materials. The premiums for such Bonds shall be paid by the Contractor.
- B. Surety Companies executing the Contract Bonds must also appear on the U.S. Treasury Department's most current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (Amended) by the Audit Staff Bureau of Accounts.

1.20 POWER OF ATTORNEY

- A. Attorneys-in-fact who sign Bid Bonds or Contract Bonds must file with each Bond a certified and effectively dated copy of their power of attorney.

1.21 EXECUTION OF AGREEMENT

- A. The Bidder whose Bid is accepted will be required and agrees to duly execute the AGREEMENT and furnish the required CONTRACT BONDS within the time limit stated in the BID after notification that the AGREEMENT is ready for signature.
- B. The Bidder whose Bid is accepted upon his failure or refusal to duly execute the AGREEMENT and furnish the required CONTRACT BONDS within the time limit stated in the BID, shall forfeit to the Owner as liquidated damages for such failure or refusal, the surety deposited with his BID.

1.22 INSURANCE CERTIFICATES

- A. The Contractor will not be permitted to start any construction work until he has submitted certificates covering all insurances called for under that subsection of the AGREEMENT, titled "Insurance." The Contractor shall submit said certificates using the forms supplied by the Engineer under said subsection.

1.23 TIME FOR COMPLETION AND LIQUIDATED DAMAGES

- A. The bidder must agree to commence work on or before the date specified in the written "NOTICE TO PROCEED" issued by the Owner, and/or Engineer acting on behalf of the Owner, and to fully complete the project within the time specified in **Table A** of the Agreement, after the date specified in the written "NOTICE TO PROCEED" as stipulated in **Table A** of the AGREEMENT. The bidder must further agree to pay as liquidated damages to the Owner, the sum as specified in **Table A** of the Agreement for each consecutive calendar day thereafter as hereafter provided in the AGREEMENT.

1.24 LAWS AND REGULATIONS

- A. The bidder's attention is directed to the fact that all applicable Federal and State laws, municipal ordinances, and rules and regulations or authorities having jurisdiction over construction of the project, shall apply to the Contract throughout, and shall be deemed to be included in the Contract the same as though herein written out in full.

1.25 WORK ON STATE, MUNICIPAL, AND PRIVATE PROPERTY

- A. Particular attention is hereby directed to the fact that portions of the Work included under this Contract will be done within the limits of properties that are State-owned, municipal-owned, or privately owned. The Contractor shall be responsible for coordinating the prosecution of the Work of this Contract with the property owner and for providing work in accordance with any additional requirements as specified herein.

1.26 DATUM OR LEVELS

- A. The figures given in the Contract and Specifications or upon the Drawings after the word elevation shall mean the distance in feet above mean sea level, the base of North American Vertical Datum (NAVD) of 1988.

1.27 STATE SALES AND USE TAX

- A. Materials and equipment purchased for installation under this Contract are exempt from Massachusetts Sales Tax. The Contractor shall file for exemption on behalf of the Owner with the State of Massachusetts Department of Taxation as required by law. The exemption from the Sales Tax shall be taken into account by the Contractor during bidding.

1.28 MANUFACTURER'S EXPERIENCE

- A. Wherever it may be written that an equipment manufacturer must have a specified period of experience with his product, equipment which does not meet the specified experience period may be considered by the Owner and/or Engineer if the equipment supplier or manufacturer is willing to provide a sufficient bond or cash deposit as determined by the Owner and/or Engineer for the duration of the specified time period which will guarantee full replacement of that equipment in the event of failure at no additional cost to the Owner.

1.29 PROTECTION OF LIVES AND HEALTH

- A. The project is subject to all of the Safety and Health Regulations as promulgated by the United States Department of Labor (Title 29, Part 1926/1910 CFR, and all revisions and amendments to date); the Contract Work Hours and Safety Standards Act (40 U.S.C. 327 et seq.) as supplemented by the Department of Labor Regulations (Title 29 CFR Part 5); and OSHA 2207, and all revisions and amendments to date. Contractors are urged to make themselves familiar with the requirements of these regulations.

1.30 NONDISCRIMINATION IN EMPLOYMENT

- A. Contracts for work under this bid (proposal) will obligate the Contractors and subcontractors not to discriminate in employment practices.
- B. The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, age, handicap, or national origin. The Contractor shall take affirmative action to ensure that applicants are employed and the employees are treated during employment without regard to their race, color, religion, sex, age, handicap, or national origin. Such actions shall include, but not be limited to, the following: employment, upgrading; demotions, or transfers; recruitment or recruitment advertising, layoffs, or terminations; rates of pay or other forms of compensation; selection for training including apprenticeship; and participation in recreational and education activities. The Contractor agrees to post in conspicuous places available to employees and applicants for employment notice to be provided setting forth the provisions of this non-discrimination clause. The Contractor will in all solicitations or advertisements for employees placed by or on behalf on the Contractor state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, age, handicap or national origin. The Contractor will cause the foregoing provisions to be inserted in all sub-contracts for any work covered by this Contract so that such provisions will be binding upon each sub-contractor and upon sub-contracts for standard commercial supplies or raw materials.
- C. The Contractor shall keep such records and submit such reports concerning the racial and ethnic origin of applicants for employment and employees as the Owner may require as consistent with Federal and State law. The Contractor agrees to comply with such rules, regulations, or guidelines as the State of Massachusetts may implement these requirements. The Contractor further warrants that he will comply with the President's Executive Order No. 11246 or any preceding similar Executive Order relating thereto.
- D. Bidders and Contractors must, if required, submit a compliance report (EPA Form 5720-4) concerning their employment practices and policies in order to maintain their eligibility to receive award of the Contract.
- E. Successful bidders and Contractors must, if required, submit a list of all Subcontractors who will perform work on the project, and written signed statements from authorized agents of labor pools with which they will or may deal with for employees on the work, together with any information to the effect that such labor pools' practices or policies are in conformity with said Executive Order that they will affirmatively cooperate in or offer no hindrance to the recruitment, employment, and equal treatment of employees seeking employment and performing work under this Contract; or a certification as to when such agents or labor pools have failed or refused to furnish them, prior to award of the Contract.

- F. The successful bidder will be required to comply with Equal Opportunity Requirements and to abide by the prevailing wage rates for Public Work Projects for all employees on the job. It is the responsibility of Bidders to inform themselves as to the local labor conditions, overtime compensation, health and welfare contributions, labor supply and prospective changes or adjustment of wage rates. Information is available at the Office of Labor and Workforce Development.

1.31 SEQUENCE OF OPERATIONS

- A. The Contractor must submit to the Engineer within fourteen (14) calendar days after execution of the Contractor Documents, a sequence of operations, giving detailed plans and schedules of his operation including any elements for by-pass pumping and/or flow diversion during the Work. Said sequence of operations shall be reviewed and must be approved by the Owner and Engineer prior to the start of the Work. The Owner reserves the right to limit or, if found necessary and/or required, delay construction, or certain activities thereof, in certain areas of the Contract should the Owner deem it to be in the public's best interest to do so.
- B. The Contractor shall have no claim for additional compensation or damage on account of any such delays and/or required sequence of operations.
- C. The Contractor shall maintain uninterrupted utility services at all times, and plan his work accordingly.
- D. The Contractor shall coordinate his activities with any other contract and/or contractor to complete the Work as detailed on the Plans and Specifications.

1.32 WETLANDS AND WATERWAYS

- A. The Contractor's attention is directed to the fact that a portion of the work is located within and/or immediately adjacent to wetlands and waterways. Work within these areas is subject to the jurisdiction of the Massachusetts Department of Environmental Protection. All requirements and/or control measures deemed necessary by the Department shall be strictly adhered to throughout the duration of this Contract.
- B. The Contractor shall not have or assert any claim for nor shall he be entitled to any additional compensation or damages on account of requirements set forth by the Department of Environmental Protection regarding the wetlands and waterways encountered during construction.

1.33 BORINGS – SUBSURFACE DATA

- A. Subsurface soil and rock information and investigations were not obtained for this project.

1.34 MATERIAL PRICE ADJUSTMENT

- A. This contract is subject to the requirements of Massachusetts General Law c30 s38A, Price adjustment clause in contracts for road, bridge, water and sewer projects awarded under Sec. 39M. See Section 01065 Material Price Adjustments.

1.35 MASSACHUSETTS WAGE RATES

- A. Minimum Wage Rates as determined by the Commissioner of Department of Workforce Development under the provision of the Massachusetts General Laws, Chapter 149, Sections 26 to 27D, as amended, apply to this project. It is the responsibility of the contractor, before bid opening, to request if necessary, any additional information on Minimum Wage Rates for those trades people who may be employed for the proposed work under this contract. See the APPENDIX for Prevailing Wage Rates.

END OF SECTION

SECTION 00300

BID FORM

To the Town of Uxbridge, Massachusetts, herein called the "Owner", for
"Town of Uxbridge, Massachusetts, Department of Public Works, Ironstone Road, Carney Street, and
Aldrich Street Bridge Preservations, Contract No. 2024-12".

The Undersigned, as a bidder herein referred to as singular and masculine, declares as follows:

- (1) The only parties interested in this BID as Principals are named herein;
- (2) this BID is made without collusion with any other person, firm, or corporation;
- (3) no officer, agent, or employee of the Owner is directly or indirectly interested in this BID;
- (4) he has carefully examined the site of the proposed Work and fully informed and satisfied himself as to the conditions there existing, the character and requirements of the proposed Work, the difficulties attendant upon its execution and the accuracy of all estimated quantities stated in this BID, and he has carefully read and examined the Drawings, the annexed proposed AGREEMENT and the Specifications and other Contract Documents therein referred to and knows and understands the terms and provisions thereof;
- (5) he understands that information relative to subsurface and other conditions, natural phenomena, existing pipes and other structures (surface and/or subsurface) has been furnished only for his information and convenience without any warranty or guarantee, expressed or implied, that the subsurface and/or other conditions, natural phenomena, existing pipes and other structures (surface and/or subsurface) actually encountered will be the same as those shown on the Drawings or in any of the other Contract Documents and he agrees that he shall not use or be entitled to use any such information made available to him through the Contract Documents or otherwise or obtained by him in his own examination of the site, as a basis of or ground for any claim against the Owner or the Engineer arising from or by reason of any variance which may exist between the aforesaid information made available to or acquired by him and the subsurface and/or other conditions, natural phenomena, existing pipes and other structures (surface and/or subsurface) actually encountered during the construction work, and he has made due allowance therefore in this BID;
- (6) and he understands that the quantities of work tabulated in this BID or indicated on the Drawings or in the Specifications or other Contract Documents are only approximate and are subject to increase or decrease as deemed necessary by the Engineer; and he agrees that, if this BID is accepted he will contract with the Owner, as provided in the copy of the Contract Documents deposited in the office of the Engineer, this BID form being part of said Contract Documents, and that he will perform all the work and furnish all the materials and equipment, and provide all labor, services, plant, machinery, apparatus, appliances, tools, supplies and all other things required by the Contract Documents in the manner and within the time therein prescribed and according to the requirements of the Engineer as therein set forth, and that he will take in full compensation therefore the total dollar amount tabulated from the actual measured quantities of said work and each unit or lump sum price stated in this BID as hereinafter set forth.

(7) It is required that all bidders submitting proposals for this project be MassDOT prequalified in the Highway-Construction category with an estimated value of \$1,378,105.

BID ITEMS

Item No.	Approx. Qty.	Item Description	Unit Price		Amount	
			Dollars	Cents	Dollars	Cents
101.	130	CLEARING AND GRUBBING At				
		Per Square Yard				
102.511	10	TREE PROTECTION – ARMORING & PRINING AT				
		Per EACH				
107.855	25	PRESSURE INJECTION OF CRACKS At				
		Per Foot				
115.11	1	DEMOLITION OF BRIDGE NO. U-02-038 At				
		Per Lump Sum				
115.12	1	DEMOLITION OF BRIDGE NO. U-02-070 At				
		Per Lump Sum				
115.13	1	DEMOLITION OF BRIDGE NO. U-02-069 At				
		Per Lump Sum				
120.1	495	UNCLASSIFIED EXCAVATION At				
		Per Cubic Yard				

BID ITEMS (Continued)

Item No.	Approx. Qty.	Item Description	Unit Price		Amount	
			Dollars	Cents	Dollars	Cents
127.12	112	REINFORCED CONCRETE EXCAVATION FOR REPAIRS AT				
		Per Cubic Foot				
140.	110	BRIDGE EXCAVATION At				
		Per Cubic Yard				
140.1	75	BRIDGE EXCAVATION WITHIN COFFERDAM AT				
		Per Cubic Yard				
151.	280	GRAVEL BORROW At				
		Per Cubic Yard				
151.1	15	GRAVEL BORROW FOR BRIDGE FOUNDATION AT				
		Per Cubic Yard				
151.2	16	GRAVEL BORROW FOR BACKFILLING STRUCTURES AND PIPES AT				
		Per Cubic Yard				

BID ITEMS (Continued)

Item No.	Approx. Qty.	Item Description	Unit Price		Amount	
			Dollars	Cents	Dollars	Cents
156.	34	CRUSHED STONE AT				
		Per Ton				
170.	990	FINE GRADING AND COMPACTING – SUBGRADE AREA AT				
		Per Square Yard				
220.	1	DRAINAGE STRUCTURE ADJUSTED AT				
		Per Each				
220.7	1	SANITARY STRUCTURE ADJUSTED At				
		Per Each				
358.	2	GATE BOX ADJUSTED AT				
		Per Each				
402.1	200	DENSE GRADED CRUSHED STONE FOR SUB-BASE AT				
		Per Ton				

BID ITEMS (Continued)

Item No.	Approx. Qty.	Item Description	Unit Price		Amount	
			Dollars	Cents	Dollars	Cents
440.	1350	CALCIUM CHLORIDE FOR ROADWAY DUST CONTROL AT				
		Per Pound				
443.	3	WATER FOR ROADWAY DUST CONTROL At				
		Per MegaGallon				
450.23	95	SUPERPAVE SURFACE COURSE – 12.5 (SSC – 12.5) AT				
		Per Ton				
450.31	95	SUPERPAVE INTERMEDIATE COURSE – 12.5 (SIC – 12.5) At				
		Per Ton				
450.42	185	SUPERPAVE BASE COURSE – 37.5 (SBC – 37.5) AT				
		Per Ton				
452.	105	ASPHALT EMULSION FOR TACK COAT AT				
		Per Gallon				

BID ITEMS (Continued)

Item No.	Approx. Qty.	Item Description	Unit Price		Amount	
			Dollars	Cents	Dollars	Cents
453.	1260	HMA JOINT SEALANT AT				
		Per Foot				
620.13	340	GUARDRAIL, TL-3 (SINGLE FACED) At				
		Per Foot				
626.3	181	STEEL THRIE BEAM HIGHWAY GUARD (SINGLE FACED/BASE & SIDE ANCHOR) AT				
		Per Foot				
627.1	7	TRAILING ANCHORAGE At				
		Per Each				
627.82	4	GUARDRAIL TANGENT END TREATMENT, TL-2 AT				
		Per Each				
628.21	1	TRANSITION TO NCHRP 350 GUARDRAIL AT				
		Per Each				

BID ITEMS (Continued)

Item No.	Approx. Qty.	Item Description	Unit Price		Amount	
			Dollars	Cents	Dollars	Cents
628.25	11	TRANSITION TO THRIE BEAM AT				
		Per Each				
628.31	2	IMPACT ATTENUATOR FOR SHOULDER, INCAPABLE OF REDIRECTION At				
		Per Each				
628.4	2	TEMPORARY IMPACT ATTENUATOR REMOVED AND RESET AT				
		Per Each				
629.001	10	TEMPORARY CONCRETE BARRIER At				
		Per Each				
630.2	350	HIGHWAY GUARD REMOVED AND DISCARDED AT				
		Per Foot				
657.	180	TEMPORARY FENCE AT				
		Per Foot				

BID ITEMS (Continued)

Item No.	Approx. Qty.	Item Description	Unit Price		Amount	
			Dollars	Cents	Dollars	Cents
685.1	650	MASONRY WORK AT				
		Per Square Foot				
697.1	1	SILT SACK At				
		Per Each				
701.	55	CEMENT CONCRETE SIDEWALK AT				
		Per Square Yard				
701.1	5	CEMENT CONCRETE SIDEWALK AT DRIVEWAYS At				
		Per Square Yard				
748.	1	MOBILIZATION AT				
		Per Lump Sum				
751.	16	LOAM FOR ROADSIDES AT				
		Per Cubic Yard				

BID ITEMS (Continued)

Item No.	Approx. Qty.	Item Description	Unit Price		Amount	
			Dollars	Cents	Dollars	Cents
765.	120	SEEDING AT				
		Per Square Yard				
767.121	800	SEDIMENT CONTROL BARRIER At				
		Per Foot				
769.	510	PAVEMENT MILLING MULCH UNDER GUARDRAIL AT				
		Per Foot				
816.81	1	TEMPORARY TRAFFIC CONTROL SIGNAL At				
		Per Lump Sum				
833.5	30	DEMOUNTABLE REFLECTORIZED DELINEATOR – GUARD RAIL AT				
		Per Each				
833.7	11	DELINEATION FOR GUARD RAIL TERMINI AT				
		Per Each				

BID ITEMS (Continued)

Item No.	Approx. Qty.	Item Description	Unit Price		Amount	
			Dollars	Cents	Dollars	Cents
852.	600	SAFETY SIGNING FOR TRAFFIC MANAGEMENT AT				
		Per Square Foot				
853.1	19	PORTABLE BREAKAWAY BARRICADE TYPE III At				
		Per Each				
853.2	320	TEMPORARY BARRIER (TL-2) AT				
		Per Foot				
853.21	210	TEMPORARY BARRIER REMOVED AND RESET At				
		Per Foot				
854.016	80	TEMPORARY PAVING MARKINGS – 6 INCH (PAINTED) AT				
		Per Foot				
856.12	180	PORTABLE CHANGEABLE MESSAGE SIGN AT				
		Per Day				

BID ITEMS (Continued)

Item No.	Approx. Qty.	Item Description	Unit Price		Amount	
			Dollars	Cents	Dollars	Cents
859.	600	REFLECTORIZED DRUM AT				
		Per Day				
859.1	30	REFLECTORIZED DRUMS WITH SEQUENTIAL FLASHING WARNING LIGHTS At				
		Per Day				
866.106	220	6 INCH REFLECTORIZED WHITE LINE (THERMOPLASTIC) AT				
		Per Foot				
867.106	220	6 INCH REFLECTORIZED YELLOW LINE (THERMOPLASTIC) At				
		Per Foot				
901.	34	4000 PSI, 1.5 INCH, 565 CEMENT CONCRETE AT				
		Per Cubic Yard				
904.3	38	5000 PSI, 3/4 INCH, 685 HP CEMENT CONCRETE AT				
		Per Cubic Yard				

BID ITEMS (Continued)

Item No.	Approx. Qty.	Item Description	Unit Price		Amount	
			Dollars	Cents	Dollars	Cents
905.	122	4000 PSI, 3/8 INCH, 610 CEMENT CONCRETE AT				
		Per Cubic Yard				
908.	44	CEMENT FOR POINTING At				
		Per Bag				
909.2	330	CEMENTITIOUS MORTAR FOR PATCHING AT				
		Per Square Foot				
910.1	21,600	STEEL REINFORCEMENT FOR STRUCTURES – EPOXY COATED At				
		Per Pound				
966.	506	MEMBRANE WATERPROOFING FOR BRIDGE DECK REPAIRS AT				
		Per Square Foot				
970.	148	DAMP-PROOFING AT				
		Per Square Yard				

BID ITEMS (Continued)

Item No.	Approx. Qty.	Item Description	Unit Price		Amount	
			Dollars	Cents	Dollars	Cents
983.12	24	CONCRETE GROUT FILLED FABRIC BAGS AT				
		Per Cubic Foot				
986.	40	MODIFIED ROCKFILL At				
		Per Ton				
991.11	1	CONTROL OF WATER – STRUCTURE NO. U-02-069 AT				
		Per Lump Sum				
991.12	1	CONTROL OF WATER – STRUCTURE NO. U-02-070 At				
		Per Lump Sum				
991.13	1	CONTROL OF WATER – BRIDGE NO. U-02-038 AT				
		Per Lump Sum				
994.01	1	TEMPORARY PROTECTIVE SHIELDING, BRIDGE NO. U-02-037 AT				
		Per Lump Sum				

BID ITEMS (Continued)

Item No.	Approx. Qty.	Item Description	Unit Price		Amount	
			Dollars	Cents	Dollars	Cents
994.02	1	TEMPORARY PROTECTIVE SHIELDING, BRIDGE NO. U-02-069 At				
		Per Lump Sum				
994.03	1	TEMPORARY PROTECTIVE SHIELDING, BRIDGE NO. U-02-070 AT				
		Per Lump Sum				
991.1	1	POLICE At	\$10,000	00	\$10,000	00
		Per Allowance				
999.2	1	ADJUSTMENT FOR INCREASES AND DECREASES TO FUEL (BOTH DIESEL AND GASOLINE), ASPHALT, CEMENT, AND STRUCTURAL AND REINFORCING STEEL BASE PRICES At	\$3,000	00	\$3,000	00
		Per Allowance				

(Note: All entries in the entire BID must be made clearly and in ink; price bid must be written in both words and figures.)

TOTAL OF BID:

_____ dollars
and _____ cents \$ _____

The undersigned agrees that for extra work, if any, performed in accordance with the terms and provisions of the annexed form of AGREEMENT, he will accept compensation as stipulated therein as full payment for such extra work.

If the Bid is accepted by the OWNER, the undersigned agrees to commence work under this Contract on a date to be specified in a written "Notice to Proceed" by the Owner and complete the entire work provided to be done under this Contract within the time stipulated in **Table "A"** of the AGREEMENT. If this bid is accepted by the Owner, the undersigned, also agrees to comply with the provisions of Section 1.14 "Liquidated Damages" and Table A of the Agreement.

As provided in the INFORMATION FOR BIDDERS, the bidder hereby agrees that he will not withdraw this BID, within 90 consecutive calendar days after the actual date of the opening of Bids, and that, if the Owner shall accept this BID, the bidder will duly execute and acknowledge the AGREEMENT and furnish, duly executed and acknowledged, the required CONTRACT BONDS within fourteen (14) consecutive calendar days after notification that the AGREEMENT and other Contract Documents are ready for signature.

Should the bidder fail to execute any of his agreements as hereinabove set forth, the Owner shall have the right to retain as liquidated damages, the Bid Security attached in the sum of (5 percent of Total Bid) _____ Dollars, (\$ _____) which shall become the Owner's property for the delay and additional expense to the Owner caused thereby. If a bid bond was given, it is agreed that the amount thereof shall be paid as liquidated damages to the Owner by the Surety. (Bidder must fill in this blank.)

The bidder hereby acknowledges the receipt of, and has included in this BID, the following Addenda:

(To be filled in by Bidder, if Addendums are issues.)

Addendum No. _____, dated _____

Addendum No. _____, dated _____

Addendum No. _____, dated _____

The bidder, by submittal of this BID, agrees with the Owner that the amount of the bid security deposited with this BID fairly and reasonably represents the amount of damages the Owner will suffer due to the failure of the bidder to fulfill his agreements as above provided.

(SEAL)

_____ L.S.
(Name of Bidder)

By _____
(Signature and title of authorized representative)

(Business address)

(City and State)

Date _____

The bidder is a corporation incorporated in the State (or Commonwealth) of _____ - a partnership - an individual. (Bidder must add and delete as necessary to make this sentence read correctly.)

(Note: If the bidder is a corporation, affix corporate seal and give below the names of its president treasurer, and general manager, if any; if a partnership, give full names and residential addresses of all partners; and if an individual, give residential address, if different from business address.)

The required names and addresses of all persons interested in the foregoing Bid, as Principals, are as follows:

(Add supplementary page if necessary)

**CERTIFICATE OF AUTHORIZATION
FOR
BIDDING REPRESENTATIVE**

(Note: Bidder must complete for certification of authorized representative signing Bid.)

At a duly authorized meeting of the Board of Directors of the

_____ held on _____,
(Name of Corporation) (Date)

at which all the Directors were present or waived notice, it was voted that

(Name of Authorized Representative) (Title)

of this company shall be, and hereby is, authorized to execute bidding documents, contracts and bonds in the name and on behalf of said company, and to affix the corporate seal thereto, and such execution of any contract obligation in this company's name on its behalf of such

_____ under seal of the company shall be valid and binding upon this company.
(Title)

A true copy

ATTEST _____

(Clerk)

Place of Business _____

I hereby certify that I am the clerk of the _____
(Name of Corporation)

_____, that _____
(Name of Authorized Representative)

is the duly elected _____ of said company, and that the
(Title)

above vote has not been amended or rescinded and remains in full force and effect as of the date of this contract.

Corporate Seal

(Clerk)

STATEMENT OF BIDDERS' QUALIFICATIONS

The following shall accompany the bid and is required as evidence of the bidder's qualifications to perform the work, as bid upon, in accordance with the contract drawings and specifications. This statement must be notarized. All questions must be answered. Additional data may be submitted on separate attached sheets.

- 1. Name of Bidder_____
- 2. Permanent Main Office Address_____
- 3. Official Mailing Address For This Contract_____
- 4. When Organized?_____
- 5. Where Incorporated, If a Corporation_____
- 6. Years Contracting under Present Name_____

7. List contracts on hand, and those completed similar in nature to this kind of project.

Owner	Engineer	Contract	Description	Contract Amount	Completion Date
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

- 8. List any work the firm has failed to complete, state where and why.

- 9. If you have ever defaulted on any contract, state where and why.

10. List full names and residences of all principals (i.e.: Officers, Directors, Partners, Owners) interested in this bid.

<u>Name</u>	<u>Residence</u>	<u>Title</u>	<u>Firm</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

11. State name(s) and qualifications of resident supervisor(s) for this project.

12. List major equipment available for this project and identify ownership or rental.

13. Will you furnish a detailed financial statement and other information, requested by the Owner?

14. List bank references for verifying financial ability of your company.

<u>Name</u>	<u>Address</u>
_____	_____
_____	_____

15. The undersigned hereby authorized and requests any person, firm or corporation, to furnish all information requested by the Owner and/or its designated agents relative to the recitals comprising this Statement of the Bidder's Qualifications.

Dated at _____ this _____ day of _____ 20_____.

(Name of Bidder)

By: _____

(Title)

State of _____

County of _____

_____ being duly sworn in person, deposes and says

that he is _____ of _____,
(Title) (Name of Bidder)

that he is the firm's duly authorized agent to execute these contract documents, and that the answers to the foregoing questions and all statements therein contained are correct and true.

Subscribed and sworn to before me this _____ day of _____ 20_____.

(SEAL)

(Notary Public)

(My Commission Expires)

STATEMENT OF PROPOSED SUBCONTRACTORS

The following shall accompany the bid and is required as evidence of the bidder's qualifications to perform the work as bid upon, in accordance with the contract drawings and specifications. The Bidder must state the names and appurtenant information of all major subcontractors he proposed to use to complete the work as bid upon. Additional data may be submitted on separate attached sheets.

If subcontractors are not to be used to complete the Work and/or any portion thereof, as herein bid upon, the Bidder must acknowledge by writing "NONE" _____.

Description of Work _____

Approximate percentage of Total Bid _____

Proposed Subcontractor, Name _____

Address _____

Description of Work _____

Approximate percentage of Total Bid _____

Proposed Subcontractor, Name _____

Address _____

Description of Work _____

Approximate percentage of Total Bid _____

Proposed Subcontractor, Name _____

Address _____

Bidder to insert description of work, percentage of Total BID, and subcontractors' names as may be required.

This is to certify that all names of the above-mentioned subcontractors are submitted with full knowledge and consent of the respective parties.

The Bidder warrants that none of the proposed subcontractors have any conflict of interest as respects this contract.

Date _____ Bidder _____
(Name of Bidder)

By _____
(Signature)

(Title)

(Business Address)

(City and State)

LABOR HARMONY AND OSHA 10 CERTIFICATION

The undersigned certifies that they will conform to and provide documentation for the requirements as stated in MGL c. 30, §39S(a) as follows:

The bidder certifies that he is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed in the work; and that all employees to be employed at the worksite will have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least 10 hours in duration at the time the employee begins work and who shall furnish documentation of successful completion of said course with the first certified payroll report for each employee; and that all employees to be employed in the work subject to this bid have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least 10 hours in duration.

Name of Contractor/Business

Signature of Authorized Representative of Contractor/Business

Date

CERTIFICATE OF NON - COLLUSION

Any person submitting a bid under this section shall, on such bid, certify the following: The undersigned certifies under penalties of perjury that this bid is in all respects bona fide, fair and made without collusion or fraud with any other person. As used in this paragraph the word "person" shall mean any natural person, joint venture, partnership, corporation, or other business, or legal entity.

Name of Contractor/Business

Signature of Authorized Representative of Contractor/Business

Date

TAX COMPLIANCE CERTIFICATION

Pursuant to MGL c. 62C, §49A, I certify under the penalties of perjury that, to the best of my knowledge and belief, I am in compliance with all laws of the Commonwealth relating to taxes, reporting of employees and contractors and withholding and remitting child support, and, subject to the conditions stated above, the contracting agency confirms with the Massachusetts Department of Revenue (DOR) that the person is in good standing with respect to all returns due and taxes payable to DOR as of the date of confirmation.

Name of Contractor/Business

Signature of Authorized Representative of Contractor/Business

Social Security or Federal Identification Number

Date

END OF SECTION

SECTION 00400

BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we the undersigned (Insert Name of Bidder) _____, as Principal, and (Insert Name of Surety) _____, as Surety, are hereby held and firmly bound and obligated unto the Town of Uxbridge, Massachusetts, as Owner, in the sum of _____ Dollars (\$ _____), as liquidated damages for payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns.

The condition of the above obligation is such that whereas the Principal has submitted to the Town of Uxbridge, Massachusetts a certain Bid attached hereto and hereby made a part hereof, to enter into a contract in writing, hereinafter referred to as the "AGREEMENT" and/or "Contract", for "Town of Uxbridge, Massachusetts, Department of Public Works, Ironstone Road, Carney Street, and Aldrich Street Bridge Preservations, Contract No. 2024-12".

NOW THEREFORE,

- (a) If said BID shall be rejected or withdrawn as provided in the INFORMATION FOR BIDDERS attached hereto or, in the alternative,
- (b) If said BID shall be accepted and the Principal shall duly execute and deliver the form of AGREEMENT attached hereto and shall furnish the specified bonds for the faithful performance of the AGREEMENT and/or Contract and for the payment for labor and materials furnished for the performance of the AGREEMENT and/or Contract,

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

The Surety, for value received, hereby agrees that the obligations of said Surety and its bond shall in no way be impaired or affected by any extensions of the time with which such BID may be accepted, and said Surety does hereby waive notice of any such extensions.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, have duly executed this bond on the

_____ day of _____, 20_____.

(SEAL)

_____ L.S.
(Name of Principal)

BY: _____
(Signature)

(Title)

(Name of Surety (Seal)

BY: _____
(Signature and Title)

BY: _____
Attorney-In-Fact

Sealed and delivered in
the presence of:

IMPORTANT: Surety Companies executing BONDS must appear on the U.S. Treasury Department's most current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Audit Staff Bureau of Accounts and be authorized to transact business in the state where the PROJECT is located.

If the Bond is signed on behalf of the Surety by an Attorney-In-Fact, there should be attached, a duly certified copy of his power of attorney showing his authority to sign such Bond.

END OF SECTION

SECTION 00500

**CONTRACT AGREEMENT
TOWN OF UXBRIDGE, MASSACHUSETTS
DEPARTMENT OF PUBLIC WORKS
IRONSTONE ROAD, CARNEY STREET, AND ALDRICH STREET
BRIDGE PRESERVATIONS
CONTRACT NO. 2024-12**

THIS AGREEMENT, is executed this _____ day of _____ in the year Two Thousand and Twenty Four (herein referred to as the "AGREEMENT") by and between the Town of Uxbridge, Massachusetts party of the first part, and _____ (Name of Contractor) party of the second part.

WITNESSETH, that the parties to these presents, each in consideration of the undertakings, promises, and agreements on the part of the other herein contained, have undertaken, promised, and agreed and do hereby undertake, promise, and agree, the party of the first part for itself, its successors and assigns, and the party of the second part for himself and his heirs, executors, administrators, successors and assigns, as follows:

1.01	Definitions	1.28	Claims for Damages
1.02	The Contract Documents	1.29	Abandonment of Work or Other Default
1.03	Obligations and Liability of Contractor	1.30	Prices for Work
1.04	Authority of the Engineer	1.31	Moneys May Be Retained
1.05	Supervision of Work	1.32	Formal Acceptance
1.06	Insurance	1.33	Progress Estimates
1.07	Patents	1.34	Partial Acceptance
1.08	Compliance with Laws	1.35	Final Estimate and Payment
1.09	Provisions Required by Law Deemed Inserted	1.36	Liens
1.10	Permits	1.37	Claims
1.11	Not to Sublet or Assign	1.38	Application of Moneys Retained
1.12	Delay by Owner	1.39	No Waiver
1.13	Time for Completion	1.40	Liability of Owner
1.14	Liquidated Damages	1.41	Guarantee
1.15	Night, Saturday, Sunday and Holiday Work	1.42	Return of Drawings
1.16	Employ Competent Persons	1.43	Cleaning Up
1.17	Employ Sufficient Labor and Equipment	1.44	Legal Address of Contractor
1.18	Intoxicating Liquors and/or Drugs	1.45	Headings
1.19	Access to Work	1.46	Modification or Termination
1.20	Examination of Work	1.47	Direct Labor cost
1.21	Defective Work, Etc.	1.48	Massachusetts Tax Laws
1.22	Protection Against Water and Storm	1.49	Minority Business
1.23	Right to Materials	1.50	Termination for Convenience
1.24	Changes	1.51	Equal Employment Opportunity...
1.25	Extra Work	1.52	Unlawful Conduct and Participation in Boycott
1.26	Extension of Time on Account of Extra Work		
1.27	Changes Not to Affect Bonds		

1.01 DEFINITIONS

Wherever the words hereinafter defined or pronouns used in their stead occur in the Contract Documents, they shall have the following meaning indicated which

shall be applicable to both the singular and plural thereof:

ADDENDA - Written or graphic instruments prior to the opening of Bids which Clarify, correct or change the Bidding Requirements or Contract Documents.

AGREEMENT - the written contract between Owner and Contractor covering the Work to be performed.

"AS DIRECTED," "AS ORDERED," "AS REQUESTED," "AS REQUIRED", "AS PERMITTED," or words of like import are used, it shall be understood that the direction, order, request, requirement, or permission of the Engineer is intended.

"APPROVED," "ACCEPTABLE," "SUITABLE," "SATISFACTORY," and words of like import shall mean approved by, acceptable to, suitable to, or satisfactory to the Engineer.

APPLICATION FOR PAYMENT - Form used by Contractor in requesting progress or final payments, format to be acceptable to the Engineer.

BID - The offer or proposal of the bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

BIDDER - Any person, firm or corporation submitting a bid for the work.

CHANGE ORDER - A document recommended by the Engineer, which is signed by the Contractor and Owner authorizing the addition, deletion or revision in the Work, or adjustment in the Contract Price or Contract Time, issued on or after the effective date of the Agreement.

CONTRACTOR - The person, firm or corporation with whom the Owner has entered into the Agreement.
Contract Bonds - Bid, Performance, and Labor and Materials Bonds and other instruments of security furnished by the Contractor and his surety in accordance with the Contract Documents.

CONTRACT DOCUMENTS - The Agreement, Addenda, Bid, Post Bid documentation submitted prior to the Notice Award, The Notice to Proceed, Bonds, General Conditions, Supplementary Conditions, The Specifications, the Drawings, all written Amendments, Change Orders, Field Orders, and Engineers written interpretations and clarifications.

CONTRACT PRICE - The total monies payable to the Contractor under the terms and conditions of the Contract Documents.

CONTRACT TIME - The number of calendar days stated in the Contract Documents for the completion of the Work.

CONSTRUCTION SUPERINTENDENT - That person designated by the Contractor to carry out the provisions of the Contract.

DATUM OR LEVELS - The figures given in the Contract and Specifications or upon the Drawings after the word elevation or abbreviation of it, shall mean the distance in feet above mean sea level, the base of the State in which the Work is located and the United States Geodetic Survey (U.S.G.S.).

DRAWINGS - The part of the Contract Drawings which show the characteristics and Scope of the Work to be performed and which have been prepared or approved by the Engineer.

EARTH - Wherever used as the name of an excavated material or material to be excavated, shall mean all kinds of material other than rock as defined in this section.

ELEVATION - The figures given on the Drawings or in the other Contract Documents after the word "elevation" or abbreviation of it shall mean the distance in feet above the datum adopted by the Engineer.

ENGINEER - The person, firm or corporation duly appointed by the Owner to undertake the duties and powers herein assigned to the Engineer, acting either directly or through duly authorized representatives. (For this Contract, BETA Group, Inc.)

FIELD ORDER - A written order issued by the Engineer which orders minor changes in the Work which do not involve a change in the Contract Price or an extension of the Contract time.

GENERAL REQUIREMENTS - Sections of Division 1 of the Specifications.

"HEREIN," "HEREINAFTER," "HEREUNDER," and words of like import shall be deemed to refer to the Contract Documents.

NOTICE OF AWARD - The written notice of the acceptance of the Bid from the Owner to the successful Bidder.

NOTICE TO PROCEED - Written communication issued by the Owner to the Contractor authorizing him to proceed with the Work and establishing the date of commencement of the Work.

OWNER - The public body or authority, corporation, association, firm or person with whom the Contractor has entered into the Agreement and for whom the Work is to be provided.

PROJECT OR CONTRACT - The undertaking to be performed in the Contract Documents.

PROJECT REPRESENTATIVE - The authorized representative of the owner who is assigned to the project site or any part thereof.

ROCK - wherever used as the name of an excavated material to be excavated, shall mean only boulders and pieces of concrete and masonry exceeding 1 cu. yd. in volume, or igneous, sedimentary, metamorphic, and conglomerate rock which, in the opinion of the Engineer, requires, for its removal, drilling and blasting, wedging, sledging, barring, or breaking up with a power-operated tool. No soft or disintegrated rock which can be removed with a hand pick or power-operated excavator or shovel, no loose, shaken, or previously blasted rock or broken stone in rock fillings, or elsewhere, and no rock exterior to the maximum limits of measurement allowed, which may fall into the excavation, will be measured or allowed as "rock."

SHOP DRAWINGS - All drawings, diagrams, schedules and other data or information prepared for and submitted by the Contractor, to illustrate portions of the Work.

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

SUBCONTRACTOR - An individual, firm or corporation, approved by the Owner and Engineer having a direct contract with the Contractor or with any other Sub-Contractor for the performance of a part of the Work on the Project.

SUBSTANTIAL COMPLETION - Shall mean either that the Work required by the Contract has been completed except for Work having a contract price of less than one percent of the then adjusted total Contract Sum, or substantially all of the Work has been completed and opened to public use except for minor incomplete or unsatisfactory Work items that do not materially impair the usefulness of the Work required by the Contract. Substantial Completion shall be conclusively determined by the Engineer after inspection of the Work.

SUPPLEMENTARY CONDITIONS - The part of the Contract Documents which amends or supplements the General Conditions.

SUPPLIER - Any person or organization who supplies materials or equipment for the Work, including that

fabricated to a special design, but who does not perform labor at the site.

WRITTEN NOTICE - Any notice to any party of the Agreement relative to any part of this Agreement in writing and considered delivered and the service thereof completed when posted by certified or registered mail to the said party at his last given address or delivered in person to said party or his authorized representative on the Work.

WORK - The entire completed construction or the various separately identifiable parts thereof required to be furnished under the Contract Documents. Work includes and is the result of performing or furnishing labor and furnishing and incorporating materials and equipment into the construction, and performing or furnishing services and furnishing documents, all as required by the Contract Documents.

1.02 THE CONTRACT DOCUMENTS

A. The Contract Documents, as defined above, are sometimes herein referred to as the "Contract". The Contract Documents are complementary, and what is called for by any one shall be as binding as if called for by all. In the event of any conflict or inconsistency between the provisions of the AGREEMENT and the provisions of any of the other Contract Documents, the provisions of the AGREEMENT shall prevail.

1.02.1 Reference to standard specifications, manuals or codes of any technical society, organization or association, or to the laws or regulations of any governmental authority, whether such reference be specific or by implication, shall mean the edition of the standard specification, manual, code or laws or regulations identified in the reference. In the event a particular edition is not identified, the reference shall mean the latest amended edition in effect at the time of receipt of the Bid. However, no provision of any referenced standard specification, manual or code (whether or not specifically incorporated by reference in the Contract Documents) shall change the duties and responsibilities of the Owner, the Contractor or the Designer, or any of their consultants, agents or employees from those set forth in the Contract Documents, nor shall it be effective to assign to the Engineer, or any of the Engineer's consultants, agents or employees, any duty or authority to supervise or direct the furnishing or performance of the work or any duty or authority to undertake responsibility contrary to the provisions of the AGREEMENT.

1.03 OBLIGATIONS AND LIABILITY OF CONTRACTOR

1.03.1 The Contractor shall do all the work and perform and furnish all the labor, services, materials, equipment, plant, machinery, apparatus, appliances, tools, supplies and all other things (except as otherwise expressly provided herein) necessary and as herein specified for the proper performance and completion of the Work in the manner and within the time hereinafter specified, in strict accordance with the Drawings, Specifications and other Contract Documents, in conformity with the directions and to the satisfaction of the Engineer, and at the prices herein agreed upon therefor.

1.03.2 All parts of the Work and all fixtures, equipment, apparatus and other items indicated on the Drawings and not mentioned in the Specifications, or vice versa, and all work and material usual and necessary to make the work complete in all its parts, including all incidental work necessary to make it complete and satisfactory and ready for use and operation, whether or not they are indicated on the Drawings or mentioned in the Specifications, shall be furnished and executed the same as if they were called for both by the Drawings and by the Specifications.

1.03.3 The Contractor shall coordinate his operations with those of any other contractors who may be employed on other work of the Owner, shall avoid interference therewith, and shall cooperate in the arrangements for storage of materials and equipment.

1.03.4 The Contractor shall conduct his work so as to interfere as little as possible with private business and public travel. Wherever and whenever necessary or required, he shall maintain fences, furnish watchmen, maintain lights, and take such other precaution as may be necessary to protect life and property.

1.03.5 The Contractor shall indemnify and save harmless the Owner and the Engineer and their officers, agents, servants and employees, from and against any and all claims, demands, suits, proceedings, liabilities, judgments, awards, losses, damages, costs and expenses, including attorneys' fees, on account of bodily injury, sickness, disease or death sustained by any person or persons or injury or damage to or destruction of any property, directly or indirectly arising out of, relating to or in connection with the Work, whether or not due or claimed to be due in whole or in part to the active, passive or concurrent negligence or fault of the Contractor, his officers, agents, servants or employees, any of his subcontractors, or any of their respective officers, agents, servants or employees and/or any other person or persons, and whether or not such claims, demands, suits or proceedings are just, unjust,

groundless, false or fraudulent; and the Contractor shall and does hereby assume and agrees to pay for the defense of all such claims, demands, suits and proceedings, provided, however, that the Contractor shall not be required to indemnify the Engineer, his officers, agents, servants or employees, against any such damages occasioned solely by defects in maps, plans, drawings, designs or specifications prepared, acquired or used by the Engineer and/or solely by the negligence or fault of the Engineer; and provided further, that the Contractor shall not be required to indemnify the Owner, his officers, agents, servants or employees, against any such damages occasioned solely by acts or omissions of the Owner other than supervisory acts or omissions of the Owner in the Work.

1.03.6 The Contractor shall have complete responsibility for the Work and the protection thereof, and for preventing injuries to persons and damage to the Work and property and utilities on or about the Work, until final completion and final acceptance thereof. He shall in no way be relieved of his responsibility by and right of the Engineer to give permission or directions relating to any part of the Work, by any such permission or directions given, or by failure of the Engineer to give such permission or directions. The Contractor shall bear all costs, expenses, losses and damages on account of the quantity or character of the Work or the nature of the land (including but not limited to subsurface conditions) in or under or on which the Work is done being different from that indicated or shown in the Contract Documents or from what was estimated or expected, or on account of the weather, elements, or other causes.

1.03.7 The Contractor shall conduct his operations so as not to damage existing structures or work installed either by him or by other contractors. In case of any such damage resulting from his operations, he shall repair and make good as new the damaged portions at his own expense with the consent of the damaged party. In the event that consent is not given, the Contractor shall continue liable for the damage caused.

1.03.8 The Contractor shall be as fully responsible to the Owner for the acts and omissions of his subcontractors, their officers, agents, servants and employees as he is for his own acts and omissions and those of his own officers, agents, servants and employees.

1.03.9 Should the Contractor sustain any loss, damage or delay through any act or omission of any other contractor or any subcontractor of any such other contractor, the Contractor shall have no claim against the Owner therefor, other than for an extension of time, but shall have recourse solely to such other contractor or subcontractor.

1.03.10 If any other contractor or any subcontractor of any such other contractor shall suffer or claim to have suffered loss, damage or delay by reason of the acts or omissions of the contractor or of any of his subcontractors, the Contractor agrees to assume the defense against any such claim and to reimburse such other contractor or subcontractor for such loss or damage.

1.03.11 The Contractor agrees to and does hereby indemnify and save harmless the Owner from and against any and all claims by such other contractors or subcontractors alleging such loss, damage or delay from and against any and all claims, demands, suits, proceedings, liabilities, judgments, awards, losses, damages, costs and expenses, including attorneys' fees, arising out of, relating to or resulting from such claims.

1.03.12 The Contractor shall promptly pay all federal, state and local taxes which may be assessed against him in connection with the Work or his operations under the AGREEMENT and/or the other Contract Documents, including, but not limited to, taxes attributable to the purchase of material and equipment, to the performance of services, and the employment of persons in the prosecution of the Work.

1.03.13 Asbestos, PCBs, Petroleum, Hazardous Waste or Radioactive Material

1.03.13.1 The Owner shall be responsible for any Asbestos, PCBs, Petroleum, Hazardous Waste or Radioactive Material uncovered or revealed at the site which was not shown or indicated in Drawings or Specification or identified in the Contract Documents to be within the scope of the Work and which may present a substantial danger to persons or property exposed thereto in connection with the Work at the site. The Owner shall not be responsible for any such materials brought to the site by the Contractor, Subcontractors, Suppliers or anyone else for whom the Contractor is responsible.

1.03.13.2 To the fullest extent permitted by Laws and Regulations, the Owner shall indemnify and hold harmless the Contractor, Subcontractors, Engineer, Engineer's Consultants and the officers, directors, employees, agents other consultants and subcontractors of each and any of them from and against all claims, costs, losses and damages arising out of or resulting from such hazardous condition, provided that: (i) any such claim, cost, loss or damage is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, and (ii) nothing in this subparagraph shall obligate the Owner to indemnify any person or entity from and

against the consequences of that person's or entity's own negligence.

1.04 AUTHORITY OF THE ENGINEER

1.04.1 The Engineer shall be the sole judge of the intent and meaning of the Drawings and Specifications and his decisions thereon and his interpretation thereof shall be final, conclusive and binding on all parties.

1.04.2 The Engineer shall be the Owner's representative during the life of the Contract and he shall observe the Work in progress on behalf of the Owner. He shall have authority (1) to act on behalf of the Owner to the extent expressly provided in the Contract or otherwise in writing; (2) to determine the amount, quality, acceptability and fitness of all work, materials and equipment required by the Contract; and (3) to decide all questions which arise in relation to the Work, the execution thereof, and the fulfillment of the Contract.

1.04.3 The Contractor shall proceed without delay to perform the work as directed, instructed, determined or decided by the Engineer and shall comply promptly with such directions, instructions, determinations or decisions. If the Contractor has any objection thereto he may, within ten (10) days of having received any such direction, instruction, determination or decision, require that any such direction, instruction, determination or decision be put in writing and within ten (10) days after receipt of any such writing he may file a written protest with the Owner stating clearly and in detail his objections, the reasons therefor, and the nature and amount of additional compensation, if any, to which he claims he will be entitled thereby. A copy of such protest shall be filed with the Engineer at the same time it is filed with the Owner. Unless the Contractor requires that any such direction, instruction, determination or decision be put in writing within ten (10) days of having received such direction, instruction, determination or decision and unless the Contractor files such written protest with the Owner and Engineer within such ten (10) day period, he shall be deemed to have waived all grounds for protest of such direction, instruction, determination, or decision and all claims for additional compensation or damages occasioned thereby, and shall further be deemed to have accepted such direction, instruction, determination, or decision as being fair, reasonable, and finally determinative of his obligations and rights under the Contract.

1.05 SUPERVISION OF WORK

1.05.1 The Contractor shall be solely responsible for supervision of the Work, shall give the work the constant attention necessary to ensure the expeditious and orderly progress thereof, and shall cooperate with the Engineer in every possible way.

1.05.2 At all times, the Contractor shall have his agent on the Work a competent superintendent capable of reading and thoroughly understanding the Drawings and Specifications, with full authority to execute the directions of the Engineer without delay and to supply promptly such labor, services, materials, equipment, plant, apparatus, appliances, tools, supplies and other items as may be required. Such superintendent shall not be removed from the Work without the prior written consent of the Engineer. If, in the opinion of the Engineer, the superintendent or any successor proves incompetent, the Contractor shall replace him with another person approved by the Engineer; such approval, however, shall in no way relieve or diminish the Contractor's responsibility for supervision of the Work.

1.05.3 Whenever the Contractor or his agent or superintendent is not present on any part of the Work where it may be necessary to give directions or instructions with respect to such work, such directions or instructions may be given by the Engineer to and shall be received and obeyed by the designated foreman or any other person in charge of the particular work involved.

1.06 INSURANCE

1.06.1 Before starting and until final completion and acceptance of the Work and expiration of the guarantee period provided for in the AGREEMENT the Contractor shall procure and maintain insurance of the types specified in paragraphs (1) to (11), inclusive, below, and to the limits for this insurance specified in Table A at the end of this section. All insurance shall be obtained from companies satisfactory to the Owner and Engineer.

1.06.2 Insurance shall be in such forms as will protect the Contractor from all claims and liability for damages for bodily and personal injury, including accidental death, and for property damage, which may arise from operations under the Contract, whether such operations be by himself, his subcontractors, or by anyone directly or indirectly employed or engaged by him.

1.06.3 The Town of Uxbridge, Massachusetts (Owner) and the Engineer shall be named as an "additionally insured".

1.06.4 All insurance policies provided by the Contractor shall include a "Waiver of Subrogation" endorsement for the Owner, Engineer and/or other third party entity.

1.06.5 The following types of insurance shall be provided on all policies:

1.06.5.1 Workmen's Compensation and Employer's Liability Insurance.

1.06.5.2 General Liability coverage, including Bodily Injury Insurance for operations and completed operations and Contractor's Protective Bodily Injury Insurance.

1.06.5.3 General Liability coverage, including Property Damage Insurance for operations and completed operations and Contractor's Protective Property Damage Insurance, each including coverage for injury to or destruction of wires or pipes and similar property and appurtenant apparatus and the collapse of or structural injury to any building or structure except those on which work under the Contract is being done. Blasting and explosion coverage shall be obtained if there is a need for blasting under the Contract, and no blasting shall be performed until such insurance has been secured.

1.06.5.4 Bodily Injury Insurance covering the operation of all motor vehicles owned by the Contractor.

1.06.5.5 Personal Injury Insurance to cover claims for personal injury and including claims brought by employees.

1.06.5.6 Property Damage Insurance covering the operation of all motor vehicles owned by the Contractor.

1.06.5.7 Insurance to cover bodily injuries and property damage resulting from the use of motor vehicles not owned by the Contractor, while such vehicles are being operated in connection with the prosecution of the Work.

1.06.5.8 Contractual Liability Insurance covering the liability assumed by the Contractor under the fifth paragraph of that subsection titled "Obligations and Liability of Contractor" of this AGREEMENT.

1.06.5.9 Owner's/Contractor's Protective Liability and Property Damage Insurance to protect the Owner and the Engineer against claims for Property damage and for bodily injuries, including accidental death, caused by the operations of the Contractor or his subcontractors on the Work. The policy shall indicate the Owner and the Engineer as the named insured. A copy of the policy shall be furnished to the Owner and a Certificate of Insurance shall be furnished to the Engineer.

1.06.5.10 Excess/Umbrella Liability Coverage shall be provided in accordance with the minimum limits stated in Table A.

1.06.5.11 Builders' Risk Insurance with an "All Risk" Installation Floater covering loss by fire and extended coverage in the completed value form in the amount of the total insurable value of all structures, materials, and equipment to be built and installed. The insurance shall be obtained from a company satisfactory to the Owner. The policy shall indicate Owner, the Contractor, all subcontractors, and the Engineer as the

named insured with loss payable to the Owner as Trustee. The policy shall provide for a 30-day notice to the Owner of cancellation or restrictive amendment. A copy of the policy shall be furnished to the Owner and a Certificate of Insurance shall be furnished to the Engineer. The insurance shall be obtained before the work is started and shall be maintained until the date of completion of the work as stated in the final estimate, or until the Owner occupies or otherwise take possession of the structure, whichever occurs first.

1.06.6 All policies shall be so written that the Owner will be notified in writing of cancellation or restrictive amendment at least 30 days prior to the effective date of such cancellation or amendment.

1.06.7 Certificates from the Contractor's insurance carriers stating the coverage provided, the limits of liability, and expiration dates shall be filed in triplicate with the Owner before operations are begun.

1.06.8 Certificates from the contractor naming the Owner, Town of Uxbridge, Massachusetts and the Engineer as additionally insured must be received by the Owner prior to initiating the work.

1.06.9 Renewal certificates must be furnished by the Contractor prior to the expiration date of any of the initial insurances.

1.06.10 No insurance required or furnished hereunder shall in any way relieve the Contractor of or diminish any of his responsibilities, obligations and liabilities under the Contract.

1.07 PATENTS

1.07.1 The Contractor's attention is directed to the following "Patent Indemnity Clause" illustrating the format and/or required wording therefore which shall be used by all manufacturers and/or suppliers, as deemed necessary by the Owner and Engineer, as an Indemnification and Hold Harmless Agreement.

1.07.2 This Agreement shall be accepted and approved in form by the Owner and Engineer prior to the approval and/or installation of the product.

PATENT INDEMNIFICATION

"In consideration for their purchase and use of the (Name of product and/or equipment) manufactured by (name of Manufacturer) and for other good and valuable consideration, (Name of Manufacturer) agrees to defend and hold harmless (Name of Contractor), BETA Group, Inc., and the (Name of Owner), and their employees and agents, from and against any liability, loss, cost, expense

or damage including reasonable attorneys' and accountants' fees incurred by these entities in defending or prosecuting any claim for such liability, loss, cost, expense or damage resulting or arising out of a claim that the use of the above mentioned product and/or equipment delivered hereunder directly infringes any United States Patent, provided that (Name of Manufacturer) is given authority, information, and assistance for the defense of such suit, and (Name of Manufacturer) shall pay all damages and costs assessed against the above named entities for the use of such produce and/or equipment provided, however, that this indemnification shall not apply to equipment of (Name of Contractor) design, and provided further that if the use of such product and/or equipment is enjoined in any suit, (Name of Manufacturer) shall at its own expense and its option either procure for (name of Contractor) the right to continue the normal use of such produce and/or equipment, replace said product and/or equipment, modify said equipment or refund the purchase price thereof; and provided further that (Name of Manufacturer) indemnity as to use shall not apply to infringement resulting from the use of the produce and/or equipment delivered hereunder in combination with other items where use of the product and/or equipment per se does not constitute infringement."

1.08 COMPLIANCE WITH LAWS

1.08.1 The Contractor shall keep himself fully informed of all existing and future federal, state, and local laws, ordinances, rules, and regulations affecting those engaged or employed on the Work, the materials and equipment used in the Work or the conduct of the Work, and of all orders, decrees and other requirements of bodies of tribunals having any jurisdiction or authority over the same. If any discrepancy or inconsistency is discovered in the Drawings, Specifications or other Contract Documents in relation to any such law, ordinance, rule, regulation, order, decree or other requirement, the Contractor shall forthwith report the same to the Engineer in writing. The Contractor shall at all times observe and comply with, and cause all his agents, with all such existing and future laws, ordinances, rules, regulations, orders, decrees and other requirements, and he shall protect, indemnify and save harmless the Owner, its officers, agents, servants and employees, from and against any and all claims, demands, suits, proceedings, liabilities, judgements, penalties, losses, damages, costs and expenses, including attorneys' fees, arising from or based upon any violation or claimed violation of any such law, ordinance, rule, regulation, order, decree or other requirement, whether committed by the Contractor

or any of his agents, servants, employees or subcontractors.

1.09 PROVISIONS REQUIRED BY LAW DEEMED INSERTED

1.09.1 Each and every provision of law and clause required by law to be inserted in the Contract shall be deemed to be inserted herein, and the Contract shall be read and enforced as though they were included herein. If through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon the application of either party, the Contract shall forthwith be physically amended to make such insertion.

1.10 PERMITS

1.10.1 The Contractor shall, at his own expense, take out and maintain all necessary permits from the county, municipal, or other public authorities; shall give the notices required by law; and shall post all bonds and pay all fees and charges incident to the due and lawful prosecution of the Work.

1.11 NOT TO SUBLET OR ASSIGN

1.11.1 The Contractor shall constantly give his personal attention to the faithful prosecution of the Work, shall keep the same under his personal control, shall not assign the Contract or sublet the Work or any part thereof without the previous written consent of the Owner, and shall not assign any of the moneys payable under the Contract, or his claim thereto, unless by and with the like written consent of the Owner and the Surety on the Contract Bonds. Any assignment or subletting in violation hereof shall be void and unenforceable.

1.11.2 The Contractor shall not sublet or assign work to a subcontractor(s), for a total in excess of fifty (50) percent of the Contract Price, without prior written approval of the Owner and Engineer.

1.11.3 The Contractor shall be fully responsible to the Owner for the acts and omissions of his subcontractors, suppliers, and of persons either directly or indirectly employed by them as he is for the acts and omissions of persons directly employed by him.

1.11.4 The Contractor shall cause appropriate provisions, and applicable State or Federal regulations, to be inserted in all subcontractors relative to the work to bind subcontractors to the Contractor by the terms of the Contract Documents insofar as applicable to the work of subcontractors, and to give the Contractor the same power as regards terminating any subcontract that the Owner may exercise over the Contractor under any provision of the Contract Documents.

1.11.5 The Contractor's attention is directed to the fact that nothing contained in this Contract shall create any contractual relation between any subcontractor and the Owner.

1.12 DELAY BY OWNER

1.12.1 The Owner may delay the beginning of the Work or any part thereof if the necessary lands or rights-of-way for such work shall not have been obtained. The Contractor shall have no claim for additional compensation or damages on account of such delay, but shall be entitled only to any extension of time as hereinafter provided.

1.13 TIME FOR COMPLETION

1.13.1 The rate of progress shall be such that the Work shall be performed and completed in accordance with the Contract before the expiration of the time limit stipulated in Table A at the end of this section, except as otherwise expressly provided herein.

1.13.2 It is agreed that the rate of progress herein required has been purposely made low enough to allow for the ordinary and foreseeable delays incident to construction work of this character. No extension of time will be given for ordinary or foreseeable delays, inclement weather, or accidents and the occurrence of such will not relieve the Contractor from the necessity of maintaining this rate of progress and completing the Work within the stipulated time limit.

1.13.3 If delays are caused by acts of God, acts of Government, unavoidable strikes, extra work, or other cause or contingencies clearly beyond the control or responsibility of the Contractor, the Contractor may be entitled to additional time to perform and complete the Work, provided that the Contractor shall, within ten (10) days from the beginning of such delay notify the Owner in writing, with a copy to the Engineer, of the cause and particulars of the delay. Upon receipt of such notification, the Owner shall review and evaluate the cause and extent of the delay. If, under the terms of the AGREEMENT, the delay is properly excusable, the Owner will, in writing, appropriately extend the time for completion of the Work. (This paragraph will be interpreted to include delays in receipt of equipment provided that the Contractor placed his order and submitted shop drawings for such equipment promptly after execution of the Contract, that he has shown due diligence in following the progress of the order, and that the time required for delivery is in accordance with conditions generally prevailing in the industry.) The Contractor agrees that he shall not have or assert any claim for nor shall he be entitled to any additional compensation or damages on account of such delays.

1.13.4 The time in which the Work is to be performed and completed is of the essence of this AGREEMENT.

1.14 LIQUIDATED DAMAGES

1.14.1 In case the Contractor fails to complete the Work satisfactorily on or before the date of completion fixed herein or as duly extended as hereinbefore provided, the Contractor agrees that the Owner shall deduct from the payments due the Contractor each month the sum set forth in Table A at the end of this section for each calendar day of delay, which sum is agreed upon not as a penalty, but as fixed and liquidated damages for each day of such delay. If the payments due the Contractor are less than the amount of such liquidated damages, said damages shall be deducted from any other moneys due or to become due the Contractor, and, in case such damages shall exceed the amount of all moneys due or to become due the Contractor, the Contractor or his Surety shall pay the balance to the Owner.

1.15 NIGHT, SATURDAY, SUNDAY AND HOLIDAY WORK

1.15.1 No work shall be done at night, on Saturday on Sunday or on a holiday except (1) usual protective work, such as pumping and the tending of lights, (2) work done in case of emergency threatening injury to persons or property, or (3) if all of the conditions set forth in the next paragraph below are met.

1.15.2 No work other than that included in (1) and (2) above shall be done at night except when (a) in the sole judgment of the Owner, the work will be of advantage to the Owner and can be performed satisfactorily at night, (b) the work will be done by a crew organized for regular and continuous night work, and (c) in the sole judgment of the Owner and Engineer, adequate noise prevention measures are incorporated into the Work by the Contractor to minimize any noise impact within the work area and (d) the Owner has given written permission for such night work. The Contractor is responsible for obtaining all permits and approvals required.

1.16 EMPLOY COMPETENT PERSONS

1.16.1 The Contractor shall employ only competent persons on the Work and shall not employ persons or means which may cause strikes, work stoppages or any disturbances by persons employed by the Contractor, any subcontractor, the Owner, the Engineer or any other contractor. Whenever the Engineer notifies the Contractor in writing that in his opinion any person on the Work is incompetent, unfaithful, disorderly, or otherwise unsatisfactory, or not employed in accordance with the provisions of the Contract, such person shall be discharged from the Work and shall not again be

employed on it, except with the written consent of the Engineer.

1.17 EMPLOY SUFFICIENT LABOR AND EQUIPMENT

1.17.1 If in the sole judgment of the Engineer the Contractor is not employing sufficient labor, plant, equipment or other means to complete the Work within the time specified, the Engineer may, after giving written notice, require the Contractor to employ such additional labor, plant, equipment and other means as the Engineer deems necessary to enable the Work to progress properly.

1.18 INTOXICATING LIQUORS AND/OR DRUGS

1.18.1 The Contractor shall not sell and shall neither permit nor suffer the introduction and/or use of intoxicating liquors and/or drugs upon or about the Work.

1.19 ACCESS TO WORK

1.19.1 The Owner, the Engineer, and their officers, agents, servants and employees may at any and all times and for any and all purposes, enter upon the Work and the site thereof and the premises used by the Contractor, and the Contractor shall at all times provide safe and proper facilities therefor.

1.20 EXAMINATION OF WORK

1.20.1 The Engineer shall be furnished by the Contractor with every reasonable facility for examining and inspecting the Work and for ascertaining that the Work is being performed in accordance with the requirements and intent of the Contract, even to the extent of requiring the uncovering or taking down portions of furnished work by the Contractor.

1.20.2 Should the work thus uncovered or taken down prove satisfactory, the cost of uncovering or taking down and the replacement thereof shall be considered as extra work unless the original work was done in violation of the Contract in point of time or in the absence of the Engineer or his inspector and without his written authorization, which case said cost shall be borne by the Contractor. Should the work uncovered or taken down prove unsatisfactory, said cost shall likewise borne by the Contractor.

1.20.3 Examination of inspection of the Work shall not relieve the Contractor of any of his obligations to perform and complete the Work as required by the Contract.

1.21 DEFECTIVE WORK, ETC.

1.21.1 Until acceptance and during the applicable guarantee period thereafter, the Contractor shall promptly, without charge, repair, correct or replace work, equipment, materials, apparatus or parts thereof which are defective, damaged or unsuitable or which in any way fail to comply with or be in strict accordance with the provisions and requirements of the Contract or applicable guarantee and shall pay to the Owner all resulting costs, expenses, losses or damages suffered by the Owner.

1.21.2 If any material, equipment, apparatus or other items brought upon the site for use or incorporation in the Work, or selected for the same, is rejected by the Engineer as unsuitable or not in conformity with the Specifications or any of the other Contract Documents, the Contractor shall forthwith remove such materials, equipment, apparatus and other items from the site of the Work and shall at his own cost and expense make good and replace the same and any material furnished by the Owner which shall be damaged or rendered defective by the handling or improper installation by the Contractor, his agents, servants, employees or subcontractors.

1.22 PROTECTION AGAINST WATER AND STORM

1.22.1 The Contractor shall take all precautions necessary to prevent damage to the Work by storms or by water entering the site of the Work directly or through the ground. In case of damage by storm or water, the Contractor shall at his own cost and expense make such repairs or replacements or rebuild such parts of the Work as the Engineer may require in order that the finished Work may be completed as required by the Contract.

1.23 RIGHT TO MATERIALS

1.23.1 Nothing in the Contract shall be construed as vesting in the Contractor any right of property in the materials, equipment, apparatus and other items furnished after they have been installed or incorporated in or attached or affixed to the Work or the site, but all such materials, equipment, apparatus and other items shall, upon being so installed, incorporated, attached or affixed, become the property of the Owner. Nothing in this subsection shall relieve the Contractor of his duty to protect and maintain all such materials, equipment, apparatus and other items.

1.24 CHANGES

1.24.1 The Owner, through the Engineer, may make changes in the Work and in the Drawings and Specifications therefor by making alterations therein, additions thereto or omissions therefrom. All work resulting from such changes shall be performed and

furnished under the pursuant to the terms and conditions of the Contract. If such changes result in an increase or decrease in the Work to be done hereunder, or increase or decrease the quantities thereof, adjustment in compensation shall be made therefor at the unit prices stipulated in the Contract for such work, except that if unit prices are not stipulated for such work, compensation for additional or increased work shall be made as provided hereinafter under the subsection titled "Extra Work"; and for eliminated or decreased work the Contractor shall allow the Owner a reasonable credit as determined by the Engineer.

1.24.2 Except in an emergency endangering life or property, no change shall be made unless in pursuance of a written order from the Engineer authorizing the change, and no claim for additional compensation shall be valid unless the change is so ordered.

1.24.3 The Contractor agrees that he shall neither have nor assert any claim for or be entitled to any additional compensation for damages or for loss of anticipated profits on work that is eliminated.

1.25 EXTRA WORK

1.25.1 The Contractor shall perform any extra work (work in connection with the Contract but not provided for herein) when and as ordered in writing by the Engineer, at the unit prices stipulated in the Contract for such work or, if none are so stipulated, whether (a) at the price agreed upon before such work is commenced and named in the written order for such work, or (b) if the Engineer so elects, for the reasonable cost of such work, as determined by the contractor and approved by the Engineer, plus a percentage of such cost, as set forth below. No extra work shall be paid for unless specifically ordered as such in writing by the Engineer.

1.25.2 The Contractor shall submit claim for any extra work within fourteen (14) calendar days of performing said extra work.

1.25.3 The cost of extra work done under (b) above shall include the reasonable cost to the Contractor of materials used and equipment installed, common and skilled labor, and foremen, and the fair rental of all machinery and equipment used on the extra work for the period of such use.

1.25.4 At the request of the Engineer, the Contractor shall furnish itemized statements for the cost of the extra work ordered as above and give the Engineer access to all records, accounts, bills and vouchers and correspondence relating thereto.

1.25.5 The Contractor may include in the cost of extra work the amounts of additional premiums, if any, (other

than premiums on bonds) paid on the required insurance on account of such extra work, of Social Security or other direct assessments upon the Contractor's payroll by Federal or other properly authorized public agencies, and of other approved assessments when such assessments are not normally included in payments made by the Contractor directly to his employees, but in fact are, and are customarily recognized as, part of the cost of doing work.

1.25.6 The fair rental hourly rate for all machinery and equipment shall be based upon the most recent edition of "Rental Rate Blue Book" published by Equipment Watch or a similar publication approved by the Engineer. Hourly rental rates for machinery and equipment shall be developed by dividing the monthly Blue Book rates by 176 hours per month plus Estimated Hourly Operating Costs (FHWA rate). Rate Adjustment tables shall be utilized for equipment model year and region of operation. If said extra work requires the use of machinery or equipment not already on the site of the Work the cost of transportation, not exceeding a distance of 100 miles, of such machinery or equipment to and from the Work shall be added to the fair monthly rental; provided, however, that this shall not apply to machinery or equipment already required to be furnished under the terms of the Contract.

1.25.7 The Contractor shall not include in the cost of extra work any cost or rental of small tools, building, or any portion of the time of the Contractor, his superintendent, or his office and engineering staff.

1.25.8 To the cost of extra work done by the Contractor's own forces under (b) above (determined as stated above), the Contractor may add 20 percent to cover his overhead, use of capital, the premium on the Bonds as assessed upon the amount of this extra work, and profit.

1.25.9 In the case of extra work done under (b) by a subcontractor the subcontractor shall compute, as above, his cost for the extra work, to which he may add 20 percent as in the case of the Contractor. The Contractor shall be allowed an additional 5 percent of the subcontractor's initial cost for the extra work prior to the 20 percent adjustment, to cover the costs of the Contractor's overhead use of capital, the premium on the Bonds as assessed upon the amount of this work, and profit. Said subcontractor's cost must be reasonable and approved by the Engineer.

1.25.10 If extra work is done under (b) above, the Contractor and/or subcontractor shall keep daily records of such extra work. The daily record shall include the names of men employed, the nature of the work performed, and hours worked, materials and equipment incorporated, and machinery or equipment used, if any,

in the prosecution of such extra work. This daily record, to constitute verification that the work was done, must be signed both by the Contractor's authorized representative and by the Engineer. A separate daily record shall be submitted for each Extra Work Order.

1.26 EXTENSION OF TIME ON ACCOUNT OF EXTRA WORK

1.26.1 When extra work is ordered near the completion of the Contract or at any time during the progress of the Work which unavoidably increases the time for the completion of the Work, and extension of time shall be granted as hereinbefore provided.

1.27 CHANGES NOT TO AFFECT BONDS

1.27.1 It is distinctly agreed and understood that any changes made in the Work or the Drawings or Specifications therefor (whether such changes increase or decrease the amount thereof or the time required for its performance) or any changes in the manner of time of payments made by the Owner to the Contractor, or any other modifications of the Contract, shall in no way annul, release, diminish or affect the liability of the Surety on the CONTRACT BONDS given by the Contractor, it being the intent hereof that notwithstanding such changes the liability of the Surety on said bonds continue and remain in full force and effect.

1.28 CLAIMS FOR DAMAGES

1.28.1 If the Contractor makes claim for any damages alleged to have been sustained by breach of contract or otherwise, he shall, within ten (10) days after occurrence of the alleged breach or within ten (10) days after such damages are alleged to have been sustained, whichever date is the earlier, file with the Engineer a written, itemized statement of the details of the alleged breach and the details and amount of the alleged damages. The Contractor agrees that unless such statement is made and filed as so required, his claim for damages shall be deemed waived, invalid and unenforceable, and that he shall not be entitled to any compensation for any such alleged damages. Within ten (10) days after the timely filing of such statement, the Engineer shall file with the Owner a copy of the statement, together with his recommendations for action by the Owner.

1.28.2 The Contractor shall not be entitled to claim any additional compensation for damages by reason of any direction instruction, determination or decision of the Engineer, nor shall any such claims be considered, unless the Contractor shall have complied in all respects with the Article titled "Authority of the Engineer", including, but not limited to the filing of a written protest in the manner and within the time therein provided.

1.29 ABANDONMENT OF WORK OR OTHER DEFAULT

1.29.1 If the Work shall be abandoned, or any part thereof shall be sublet without previous written consent of the Owner, or the Contract or any moneys payable hereunder shall be assigned otherwise than as herein specified, or if at any time the Engineer shall be of the opinion, and shall so certify in writing, that the conditions herein specified as to rate of progress are not being complied with, or that the Work or any part thereof is being unnecessarily or unreasonably delayed, or that the Contractor has violated or is in default under any of the provisions of the Contract, or if the Contractor becomes bankrupt or insolvent or goes or is put into liquidation or dissolution, either voluntarily or involuntarily, or petitions for an arrangement or reorganization under the Bankruptcy Act, or makes a general assignment for the benefit of creditors or otherwise acknowledges insolvency, the happening of any of which shall be and constitute a default under the Contract, the Owner may notify the Contractor in writing, with a copy of such notice mailed to the Surety, to discontinue all Work or any part thereof; thereupon the Contractor shall discontinue such Work or such part thereof as the Owner may designate; and the Owner may, upon giving such notice, by contract or otherwise as it may determine, complete the Work or such part thereof and charge the entire cost and expense of so completing the Work or such part thereof to the Contractor. In addition to the said entire cost and expense of completing the Work, the Owner shall be entitled to reimbursement from the Contractor and the Contractor agrees to pay to the Owner any losses, damages, costs and expenses, including attorney's fees, sustained or incurred by the Owner by reason of any of the foregoing causes. For the purposes of such completion the Owner may for itself or for any Contractors employed by the Owner take possession of and use or cause to be used any and all materials, equipment, plant, machinery, appliances, tools, supplies and such other items of every description that may be found or located at the site of the Work.

1.29.2 All costs, expenses, losses, damages, attorney's fees and any and all other charges incurred by the Owner under this subsection shall be charged against the Contractor and deducted and/or paid by the Owner out of any moneys due of payable or to become due or payable under the Contract to the Contractor; in computing the amounts chargeable to the Contractor the Owner shall not be held to a basis of the lowest prices for which the completion of the Work or any part thereof might have been accomplished, but all sums actually paid or obligated therefor to effect its prompt completion shall be charged to and against the account of the Contractor. In case the costs, expenses, losses, damages, attorney's fees and other charges together with

all payments theretofore made to or for the account of the Contractor are less than the sum which would have been payable under the Contract if the Work had been properly performed and completed by the Contractor, the Contractor shall be entitled to receive the difference, and, in case such costs, expenses, losses, damages, attorneys' fees and other charges, together with all payments theretofore made to or for the account of the Contractor, shall exceed the said sum, the Contractor shall pay the amount of the excess to the Owner.

1.30 PRICES FOR WORK

1.30.1 The Owner shall pay and the Contractor shall receive the prices stipulated in the BID made a part hereof as full compensation for everything performed and furnished and for all risks and obligations undertaken by the Contractor under and as required by the Contract.

1.31 MONEYS MAY BE RETAINED

1.31.1 The Owner may at any time retain from any moneys which would otherwise be payable hereunder so much thereof as the Owner may deem necessary to complete the Work hereunder and to reimburse it for all costs, expenses, losses, damage and damages chargeable to the Contractor hereunder, in accordance with the States General Laws.

1.32 FORMAL ACCEPTANCE

1.32.1 This Agreement constitutes an entire contract for one whole and complete Work or result. Fixing of the date of completion and acceptance of the Work or a specified part thereof shall only be effective when accomplished by a writing specifically so stating and signed by the Owner.

1.33 PROGRESS ESTIMATES

1.33.1 Once a month, except as hereinafter provided, the Engineer shall make an estimate in writing of the total amount and value of the work done to the first of the month by the Contractor. The Owner shall retain a percentage of such estimated value, as set forth in Table A at the end of this section, as part security for fulfillment of the Contract by the Contractor and shall deduct from the balance all previous payments made to the Contractor, all sums chargeable against the Contractor and all sums to be retained under the provisions of the Contract.

1.33.2 Estimates of lump-sum items shall be based on a schedule dividing each such item into its appropriate component parts together with a quantity and a unit price for each part so that the sum of the products of prices and quantities will equal the Contract price for the item. This schedule must be submitted by the Contractor for

and must have the approval of the Engineer before the first estimate becomes due.

1.33.3 If the Engineer determines that the progress of the Work will be benefited by the delivery to the site of certain materials and equipment, when available, in advance of actual requirement therefor and if such materials and equipment are delivered and properly stored, protected and insured as determined by the Engineer, the cost to the Contractor or subcontractor as established by invoices or other suitable vouchers satisfactory to the Engineer, less the retained percentages as above provided, may be included in the progress estimates; provided always that there be duly executed and delivered by the Contractor to the Engineer at the same time a Bill of Sale in form satisfactory to the Owner, transferring and assigning to the Owner full ownership and title to such materials or equipment.

1.33.4 The Owner shall pay monthly to the Contractor in accordance with General Laws Chapter 30, Section 39, as amended:

1.33.4.1 Within fifteen (15) days (twenty-four (24) days in the case of the Commonwealth) after receipt from the Contractor, at the place designated by the Owner if such a place is so designated, of a periodic estimate requesting payment of the amount due for the preceding month, the Owner will make periodic payment to the Contractor for the work performed during the preceding month and for the materials not incorporated in the work but delivered and suitably stored at the site (or at some location agreed upon in writing) to which the Contractor has title or to which a subcontractor has title and has authorized the Contractor to transfer title to the Owner, less (1) a retention based on its estimate of the fair value of its claims against the Contractor and less (2) a retention for direct payments to subcontractors based on demands for same in accordance with the provisions of section 39F and less (3) a retention not exceeding five percent of the approved amount of the periodic payment. After the receipt of a periodic estimate requesting final payment and within 65 days after (a) the Contractor fully completes the work or substantially completes the work so that the value of the work remaining to be done is, in the estimate of the awarding authority, less than one percent of original contract price, or (b) the Contractor substantially completes the work and the Owner takes possession for occupancy, whichever occurs first, the Owner shall pay the Contractor the entire balance due on the contract less (1) a retention based on its estimate of the fair value of its claims against the Contractor and of the cost of completing the incomplete and unsatisfactory items of work and less (2) a retention for direct payments to subcontractors based on demands for same in accordance with the provisions of section 39 F, or based on the record of payments by the Contractor to

the subcontractors under this contract if such record of payment indicates that the Contractor has not paid subcontractors as provided in section 39 F. If the Owner fails to make payment as herein provided, there shall be added to each such payment daily interest at the rate of three percentage points above the rediscount rate than charged by the Federal Reserve Bank of Boston commencing on the first day after said payment is due and continuing until payment delivered or mailed to the Contractor; provided, that no interest shall be due, in any event, on the amount due on periodic estimate for final payment until 15 days (24 days in the case of the Commonwealth) after receipt of such a periodic estimate from the Contractor, at the place designated by the Owner if such a place is so designated. The Contractor agrees to pay to each subcontractor a portion of any such interest in accordance with the amount due each subcontractor.

1.33.4.2 Forthwith after the Contractor receives payment on account of a periodic estimate, the Contractor shall pay to each subcontractor the amount paid for the labor performed and the materials furnished by that subcontractor, less any amount specified in any court proceedings barring such payment and also less any amount claimed due from the subcontractor by the Contractor.

1.33.4.3 Not later than the 65th day after each subcontractor substantially completes his work in accordance with the plans and specifications, the entire balance due under the subcontract less amounts retained by the Owner as the estimated cost of completing the incomplete and unsatisfactory items of work, shall be due the subcontractor; and the Owner shall pay that amount to the Contractor. The Contractor shall forthwith pay to the subcontractor the full amount specified in any court proceedings barring such payment and also less any amount claimed due from the subcontractor by the Contractor.

1.33.4.4 Each payment made by the Owner to the Contractor pursuant to subparagraphs (2) and (3) of this paragraph for the labor performed and the materials furnished by a subcontractor shall be made to the Contractor for the account of that subcontractor; and the Owner shall take reasonable steps to compel the Contractor to make each such payment to each such subcontractor. If the Owner has received a demand for direct payment from a subcontractor for any amount which has already been included in a payment to the Contractor or which is to be included in a payment to the Contractor for payment to the subcontractor as provided in subparagraphs (2) and (3), the Owner shall act upon the demand as provided in this section.

1.33.4.5 If, within 70 days after the subcontractor has substantially completed the subcontract work, the subcontractor has not received from the Contractor the balance due under the subcontract including any amount

due for extra labor and materials furnished to the Contractor, less any amount retained by the Owner as the estimated cost of completing the incomplete and unsatisfactory items of work, the subcontractor may demand direct payment of that balance from the Owner. The demand shall be by a sworn statement delivered to or sent by certified mail to the Owner, and a copy shall be delivered to or sent by certified mail to the Contractor at the same time. The demand shall contain a detailed breakdown of the balance due under the subcontract and also a statement of the status of completion of the subcontract work. Any demand made after substantial completion of the subcontract work shall be valid even if delivered or mailed prior to the 70th day after the subcontractor has substantially completed the subcontract work. Within ten days after the subcontractor has delivered or so mailed the demand to the Owner and delivered or so mailed a copy to the Contractor, the Contractor may reply to the demand. The reply shall be by a sworn statement delivered to or sent by certified mail to the Owner and a copy shall be delivered to or sent by certified mail to the subcontractor at the same time. The reply shall contain a detailed breakdown of the balance due under the subcontract including any amount due for extra labor and materials furnished to the Contractor and of the amount due for each claim made by the Contractor against the subcontractor.

1.33.4.6 Within 15 days after receipt of the demand by the Owner, but in no event prior to the 17th day after substantial completion of the subcontract work, the Owner shall make direct payment to the subcontractor of the balance due under the subcontract including any amount due for extra labor and materials furnished to the Contractor, less any amount (i) retained by the Owner as the estimated cost of completing the incomplete or unsatisfactory items of work, (ii) specified in any court proceedings barring such payment, or (iii) disputed by the Contractor in the sworn reply; provided, that the Owner shall not deduct from a direct payment any amount as provided in part (iii) if the reply is not sworn to, or for which the sworn reply does not contain the detailed breakdown required by subparagraph (5). The Owner shall make further direct payments to the subcontractor forthwith after the removal of the basis for deductions from direct payments made as provided in parts (i) and (ii) of this subparagraph.

1.33.4.7 The Owner shall forthwith deposit the amount deducted from a direct payment as provided in part (iii) of subparagraph (6) in an interest-bearing joint account in the names of the Contractor and the subcontractor in a bank in Massachusetts selected by the Owner or agreed upon by the Contractor and the subcontractor and shall notify the Contractor and the subcontractor of the date of the deposit and the bank receiving the deposit. The bank shall pay the amount in the account, including accrued interest, as provided in an agreement between

the Contractor and the subcontractor or as determined by decree of a court of competent jurisdiction.

1.33.4.8 All direct payments and all deductions from demands for direct payments deposited in an interest-bearing account or accounts in a bank pursuant to subparagraph (7) shall be made out of amounts payable to the Contractor at the time of receipt of a demand for direct payment from a subcontractor and out of amounts which later become payable to the Contractor and in the order of receipt of such demands from subcontractors. All direct payments shall discharge the obligation of the Owner to the Contractor to the extent of such payment.

1.33.4.9 The Owner shall deduct from payments to a Contractor amounts which, together with the deposits in interest-bearing accounts pursuant to subparagraph (7), are sufficient to satisfy all unpaid balances of demands for direct payment received from subcontractors. All such amounts shall be earmarked for such direct payments, and the subcontractors shall have a right in such deductions prior to any claims against such amounts by creditors of the Contractor.

1.33.4.10 If the subcontractor does not receive payment as provided in subparagraph (2) or if the Contractor does not submit a periodic estimate for the value of the labor or materials performed or furnished by the subcontractor and the subcontractor does not receive payment for same when due less the deductions provided for in subparagraph (2), the subcontractor may demand direct payment by following the procedure in subparagraph (5) and the Contractor may file a sworn reply as provided in that same subparagraph. A demand made after the first day of the month following that for which the subcontractor seeks payment shall be valid even if delivered or mailed prior to the time payment was due on a periodic estimate from the Contractor. Thereafter the Owner shall proceed as provided in subparagraph (6), (7), (8), and (9).

1.33.4.11 "Subcontractor" as used in subparagraph 10, shall mean a person who files a sub-bid and receives a subcontract as a result of that filed sub-bid or who is approved by the Owner in writing as a person performing labor or both performing labor and furnishing materials pursuant to a contract with the Contractor.

1.34 PARTIAL ACCEPTANCE

1.34.1 The Owner may, at any time in a written order to the Contractor (1) declare that he intends to use a specified part of the Work which in his opinion is sufficiently complete, in accordance with the Contract Documents, to permit its use; (2) enclose a tentative list of items remaining to be completed or corrected, and (3) fix the date of acceptance of that specified part of the Work.

1.34.2 Within 45 days after acceptance under this subsection, the Engineer shall make an estimate in writing of the amount and value of the part of the Work so accepted. The Owner shall pay said amount to the Contractor after deducting therefrom all previous payments, all charges against the Contractor as provided for hereunder, and all amounts to be retained under the provisions of the Contract, said payment to be made at the time of the next monthly progress estimate.

1.34.3 Acceptance by the Owner under this subsection shall not relieve the Contractor of any obligations under the Contract Documents except to the extent agreed upon in writing between the Owner and the Contractor.

1.34.4 The Owner shall have the right to exclude the Contractor from any part of the Work which has been accepted, but the Owner will allow the Contractor reasonable access thereto to complete or correct items on the tentative list.

1.35 FINAL ESTIMATE AND PAYMENT

1.35.1 As soon as practicable (but not more than sixty-five (65) days after final completion of the Work), the Engineer shall make a final estimate in writing of the quantity of Work done under the Contract and the amount earned by the Contractor.

1.35.2 The Owner shall pay to the Contractor the entire amount found by the Engineer to be earned and due hereunder after deducting therefrom all previous payments, all charges against the Contractor as provided for hereunder, and all amounts to be retained under the provisions of the Contract. Except as in this subsection otherwise provided, such payment shall be made not later than fifteen (15) days after but in no event before, the expiration of the time within which claims for labor performed or materials or equipment furnished must be filed under the applicable Lien Law, or, if such time is not specified by law, the expiration of thirty (30) days after the completion of the Engineer's final estimate.

1.35.3 All quantities shown on progress estimates and all prior payments shall be subject to correction in the final estimate and payment as determined by the Engineer.

1.35.4 The acceptance by the Contractor of final payment shall be and shall operate as a release to the Owner of all claims and all liability to the Contractor under or by virtue of this Agreement; and upon satisfactory completion of the work performed under this Agreement, as a condition before final payment under this Agreement or as a termination settlement under this Agreement the Contractor shall execute and deliver to the Owner a release of all claims against the Owner arising under or by virtue of, this Agreement,

except claims which are specifically exempted by the Contractor to be set forth herein. Unless otherwise provided in this Agreement, by State law or otherwise expressly agreed to be the parties to this Agreement, any payment, including final payment under, this Agreement or settlement upon termination of this Agreement shall not constitute a waiver of the Owner's claims against the Contractor or his sureties under this Agreement or applicable Performance and Labor and Materials Bonds.

1.36 LIENS

1.36.1 If at any time any notices of lien are filed and labor performed or materials or equipment manufactured, furnished, or delivered to or for the Work, the Contractor shall, at its own cost and expense, promptly discharge, remove or otherwise dispose of the same, and until such discharge, removal or disposition, the Owner shall have the right to retain from any moneys payable hereunder an amount which, in its sole judgement, it deems necessary to satisfy such liens and pay the costs and expenses, including attorneys' fees, of defending any actions brought to enforce the same, or incurred in connection therewith or by reason thereof.

1.37 CLAIMS

1.37.1 If at any time there be any evidence of any claims for which the Contractor is or may be liable or responsible hereunder, the Contractor shall promptly settle or otherwise dispose of the same, and until such claims are settled or disposed of, the Owner may retain from any moneys which would otherwise be payable hereunder so much thereof as, in its sole judgement, it may deem necessary to settle or otherwise dispose of such claims and to pay the costs and expenses, including attorney's fees, of defending any actions brought to enforce such claims, or incurred in connection therewith or by reason thereof.

1.38 APPLICATION OF MONEYS RETAINED

1.38.1 The Owner may apply any moneys retained hereunder to reimburse itself for any and all costs, expenses, losses, damage and damages, liabilities, suits, judgements and awards incurred, suffered or sustained by the Owner and chargeable to the Contractor hereunder or as determined hereunder.

1.39 NO WAIVER

1.39.1 Neither the inspection by the Owner or the Engineer, nor any order, measurement, approval, determination, decision or certificate by the Engineer, nor any order by the Owner for the payment of money, nor any payment for or use, occupancy, possession or acceptance of the whole or any part of the Work by the Owner, nor any extension of time, nor any other act or

omission of the Owner or of the Engineer shall constitute or be deemed to be an acceptance of any defective or improper work, materials, or equipment nor operate as a waiver of any requirement or provision of the Contract, nor of any remedy, power or right of or herein reserved to the Owner, nor of any right to damages for breach of contract. Any and all rights and/or remedies provided for in the Contract are intended and shall be construed to be cumulative; and, in addition to each and every other right and remedy provided for herein or by law, the Owner shall be entitled as of right to a writ of injunction against any breach or threatened breach of the Contract by the Contractor, by his subcontractors or by any other person or persons.

1.40 LIABILITY OF OWNER

1.40.1 No person, firm or corporation, other than the Contractor who signed this Contract as such, shall have any interest herein or right hereunder. No claim shall be made or be valid either against the Owner or any agent of the Owner and neither the Owner nor any agent of the Owner shall be liable for or be held to pay any money, except as herein provided. The acceptance by the Contractor of the payment as fixed in the final estimate shall operate as and shall be a full and complete release of the Owner and of every agent of the Owner of and from any and all claims, demands, damages and liabilities of, by or to the Contractor for anything done or furnished for or arising out of or relating to or by reason of the Work or for or on account of any act or neglect of the Owner or of an agent of the Owner or of any other person, arising out of, relating to or by reason of the Work, except the claim against the Owner for the unpaid balance, if any there be, of the amounts retained as herein provided.

1.41 GUARANTEE

1.41.1 The Contractor guarantees that the Work and services to be performed under the Contract, and all workmanship, materials and equipment performed, furnished, used or installed in the construction of the same, shall be free from defects and flaws, and shall be performed and furnished in strict accordance with the Drawings, Specifications, and other Contract Documents, that the strength of all parts of all manufactured equipment shall be adequate and as specified and that the performance test requirements of the Contract shall be fulfilled. This guarantee shall be for a period of one year from and after the date of completion and acceptance of the Work as stated in the final estimate. If part of the Work is accepted in accordance with that subsection of this AGREEMENT titled "Partial Acceptance", the guarantee for that part of the Work shall be for a period of one year from the date fixed for such acceptance.

1.41.2 If at any time within the said period of guarantee any part of the Work requires repairing, correction or replacement, the Owner may notify the Contractor in writing to make the required repairs, correction, or replacements. If the Contractor neglects to commence making such repairs, correction, or replacements to the satisfaction of the Owner within three (3) days from the date of receipt of such notice, or having commenced fails to prosecute such Work with diligence, the Owner may employ other persons to make the same, and all direct and indirect costs of making said repairs, correction or replacements, including compensation for additional professional services, shall be paid by the Contractor.

1.42 RETURN OF DRAWINGS

1.42.1 All Drawings furnished by the Owner or the Engineer to the Contractor may be used only in connection with the prosecution of the Work and shall be returned by the Contractor upon completion of the Work.

1.43 CLEANING UP

1.43.1 The Contractor at all times shall keep the site of the Work free from rubbish and debris caused by his operations under the Contract. When the Work has been completed, the Contractor shall remove from the site of the Work all of his plant, machinery, tools, construction equipment, temporary work, and surplus materials so as to leave the Work and the site clean and ready for use.

1.44 LEGAL ADDRESS OF CONTRACTOR

1.44.1 The Contractor's business address and his office at or near the site of the Work are both hereby designated as places to which communications shall be delivered. The depositing of any letter, notice, or other communication in a postpaid wrapper directed to the Contractor's business address in a post office box regularly maintained by the Post Office Department or the delivery at either designated address of any letter, notice, or other communication by mail or otherwise shall be deemed sufficient service thereof upon the Contractor, and the date of such service shall be the date of receipt. The first-named address may be changed at any time by an instrument in writing, executed and acknowledged by the Contractor delivered to the Engineer. Service of any notice, letter, or other communication upon the Contractor personally shall likewise be deemed sufficient service.

1.45 HEADINGS

1.45.1 The headings or titles of any section, subsection, paragraph, provision, or part of the Contract Documents shall not be deemed to limit or restrict the

content, meaning or effect of such section, subsection, paragraph, provision or part.

1.46 MODIFICATION OR TERMINATION

1.46.1 Except as otherwise expressly provided herein, the Contract may not be modified or terminated except in writing signed by the parties hereto.

1.47 DIRECT LABOR COST

1.47.1 Direct labor cost percentage for change orders shall be ____ percent. (Direct labor cost percent shall be established following award and prior to execution of the Contract).

1.48 MASSACHUSETTS TAX LAWS

1.48.1 The Contractor shall provide a statement that indicates compliance with all the requirements of Massachusetts General Law Chapter 62C.

1.49 MINORITY BUSINESS

1.49.1 There is no goal for minority business enterprise (MBE/WBE) participation for this contract.

1.50 TERMINATION FOR CONVENIENCE

1.50.1 This Agreement may be terminated by the Owner upon not less than seven days' written notice for the Owner's convenience. In the case of termination for convenience, the Owner shall be responsible for amounts due the Contractor for work performed through the date of termination, provided that the Contractor

shall submit a request for payment in accordance with the provisions hereof. The Contractor shall have no other claim for payments due with respect to such termination including any claim for lost profits with respect to the balance of the project.

1.51 EQUAL EMPLOYMENT OPPORTUNITY, ANTIDISCRIMINATION AND AFFIRMATIVE ACTION

1.51.1 The Contractor shall not discriminate against or exclude any person from participation herein on grounds of race, religion, color, sex, age, or national origin; and that it shall take affirmative actions to insure that applicants are employed, and that employees are treated during their employment, without regard to race, religion, color, sex, age, handicapped status, or national origin.

1.52 UNLAWFUL CONDUCT AND PARTICIPATION IN BOYCOTT

1.52.1 The Contractor shall not participate in or cooperate with an international boycott, as defined in Section 999 (b) (3) and (4) of the Internal Revenue Code of 1954, as amended, or engage in conduct declared to be unlawful by Section 2 of Chapter 151E of the Massachusetts General Laws.

IN WITNESS WHEREOF, the parties to this AGREEMENT have hereunto set their hands and seals, and have executed, or caused to be executed by their duly authorized officials, the AGREEMENT in Four (4) copies, each of which shall be deemed an original, as of the day and year first above-written.

WITNESSES

Town of Uxbridge, Massachusetts

(Owner - party of the first part)

(SEAL)

BY: _____

(Signature)

(Title)

ATTEST:

(Signature)

(Contractor - party of the second part)

(SEAL)

BY: _____

(Signature)

(Title)

(Address)

ATTEST:

(Signature)

CERTIFICATE OF OWNER'S LEGAL COUNSEL

I, the undersigned, _____ the duly authorized and acting legal representative of the _____, acting herein through its _____, do hereby certify as follows:

I have examined the foregoing contract and surety bonds and the manner of execution thereof, and I am of the opinion that each of the aforesaid agreements has been duly executed by the proper parties thereto acting through their duly authorized representatives; that said representatives have full power and authority to execute said agreements on behalf of the respective parties named thereon; and that the foregoing agreements constitute valid and legally binding obligations upon the parties executing the same in accordance with the terms, conditions, and provisions thereof.

By: _____
(Signature)

Date: _____

(Name)

(Title)

(Address)

(City, State, Postal code)

Auditor's/Accountant's Certification

Pursuant to M.G.L. c.44, s31C, I certify that an appropriation has been made in the total amount of the contract.

(Signature)

**CERTIFICATE OF ACKNOWLEDGMENT OF CONTRACTOR IF A CORPORATION
For AGREEMENT**

State of _____)

County _____)

ON THIS _____ DAY OF _____, 20 _____, BEFORE ME
PERSONALLY

came _____ to me known, who being me duly

sworn, did depose and say as follows:

That he resides at _____

and is the _____

of _____

the corporation described in and which executed the foregoing instrument; that he knows the corporate seal of said corporation; that the seal affixed to the foregoing instrument is such corporate seal and it was so affixed by order of the Board of Directors of said corporation; and that by the like order he signed thereto his name and official designation.

Notary Public

(Seal)

My commission expires _____

Auditor's/Accountant's Certification

Pursuant to M.G.L. c.44, s31C, I certify that an appropriation has been made in the total amount of the contract.

(Signature)

TABLE A

Agreement Subsection Reference	Item	Minimum limits
1.06	Workman's Compensation and Employer's Liability Insurance	As required by the law of the State of Massachusetts
1.06	General Liability including Contractor's Protective, Completed Operations and Contractual Liability	Bodily Injury/Property Damage including C.U. Coverage <u>\$1,000,000</u> (Each Occurrence) <u>\$2,000,000</u> (Aggregate) Blasting and explosion coverage shall be obtained if there is a need for blasting under the contract.
1.06	Personal Injury Insurance	<u>\$2,000,000</u> (Aggregate)
1.06	Automobile Liability including coverage for owned, hired or borrowed vehicles	Bodily Injury/Property Damage <u>\$1,000,000</u> Combined Single Limit (Each Occurrence)
1.06	Owner's/Contractor's Protective (OCP) Liability & Property Damage	Bodily Injury/Property Damage <u>\$3,000,000</u> (Each Occurrence) <u>\$3,000,000</u> (Aggregate)
1.06	Excess/Umbrella Liability Coverage	<u>\$5,000,000</u> (Each Occurrence) <u>\$5,000,000</u> (Aggregate)
1.06	Builder's Risk Insurance (If Applicable)	Total insurable value of all structures, materials, and equipment to be built and installed.
1.13	a) Time of Completion - Total Contract	Construction shall be completed by June 30, 2025.
1.14	Liquidated Damages for each consecutive calendar day of delay in completion time	\$500.00
1.33	Percentage of Progress Estimates to be Retained	5%

END OF SECTION

SECTION 00600

CONTRACT BONDS

PERFORMANCE BOND

(NOTE: This Bond is issued simultaneously with the attached Labor and Materials Bond in favor of the Owner.)

KNOW ALL MEN BY THESE PRESENTS:

That we, _____
(an individual, a partnership, a corporation)

duly organized under the Laws of the State (or Commonwealth) of _____,

and having a usual place of business at _____,

as Principal, and _____, a corporation duly organized

under the Laws of the State (or Commonwealth) of _____,

and duly authorized to do business in the Commonwealth of Massachusetts,

and having a usual place of business at _____

as Surety, are holden and stand firmly bound and obligated unto Town of Uxbridge, Massachusetts, as obligee, in the sum of

_____ lawful money of the United States of America, to and for the true payment whereof we bind ourselves and, each of us, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal, be means of a written AGREEMENT (which together with the Contract Documents in said AGREEMENT referred to are collectively sometimes referred to as the "Contract") dated _____, has entered into a contract with the said obligee for **“Town of Uxbridge, Massachusetts, Department of Public Works, Ironstone Road, Carney Street, and Aldrich Street Bridge Preservations, Contract No. 2024-12”** in the Town of Uxbridge, Massachusetts, a copy of Which agreement is attached hereto and by references made a part hereof.

NOW THEREFORE, THE CONDITION of this obligation is such that if the Principal shall well and truly keep and fully and faithfully perform all of the terms and conditions of said AGREEMENT and of the "Contract Documents" referred to in said AGREEMENT (which collectively are hereinafter and in

said AGREEMENT sometimes referred to as the "Contract") and all modifications thereof on the Principal's part to be performed, this obligation shall be void; otherwise it shall remain in full force and effect.

Whenever the said Principal shall be, and declared by the Owner to be, in default under the said Contract,

the Owner having performed the Owner's obligations thereunder Surety, for value received, shall promptly remedy the default, or, at the option of the Owner, shall promptly.

- (a) Complete the said AGREEMENT and/or Contract in accordance with its terms and conditions, or
- (b) Obtain a bid or bids for submission to and the approval of the Owner for completing the said AGREEMENT and/or Contract and any modifications thereof in accordance with the terms and conditions thereof, and upon determination by the Owner and the Surety of the lowest responsible and acceptable bidder, arrange for a contract between such bidder and the Owner, and make available to the Owner as the work progresses (even though there should be default or a succession of defaults under the contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less a sum that shall be equal to the difference between the Contract price as fixed and provided in said AGREEMENT and/or Contract or any modifications thereof to be paid thereunder to the Principal and the amount previously paid by the Owner to and/or for the account of and/or chargeable against the Principal, but not exceeding (including other costs and damages for which the Surety may be liable hereunder) the amount set forth in the first paragraph hereof.

The Surety, for value received, agrees further that no changes in, omissions from, or alterations, modifications or additions to the terms and provisions of said AGREEMENT and/or Contract or the Work to be performed thereunder, and that no extensions of time given or changes made in the manner or time of making payments thereunder, shall in any way effect the Surety's obligations on this bond, and the Surety hereby waives notice of any such changes, omissions, alterations, modifications, additions or extensions.

No right of action shall accrue on this Bond to or for the use of any persons other than the Owner named herein or the heirs, executors, administrators, successors and assigns of the Owner.

IN WITNESS WHEREOF, we have hereunto set our hands and seals to _____
_____ counterparts of this bond, this _____ day of _____,
in the year Two Thousand and _____.

Principal (SEAL)

Principal (SEAL)

Principal (SEAL)

Surety (SEAL)

Surety (SEAL)

NOTE:

If the Principal (Contractor) is a partnership, the Bond should be signed by each of the partners.

If the Principal (Contractor) is a corporation, the Bond should be signed in its correct corporate name by its duly authorized officer or officers.

If this Bond is signed on behalf of the Surety by an attorney-in-fact, there should be attached to it a duly certified copy of his power of attorney showing his authority to sign such Bonds.

There should be executed an appropriate number of counterparts of the Bond corresponding to the number of counterparts of the AGREEMENT.

Date of Bond must not be prior to the date of Contract.

Important

Surety Companies executing BONDS must appear on the U.S. Treasury Department's most current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Audit Staff Bureau of Accounts and be authorized to transact business in the state where the PROJECT is located.

The attention of the Surety Companies and Principal executing this Performance Bond is Directed to the fact that said Bond shall remain in full effect throughout the life of any guaranty or warranty periods stipulated in the Contract Documents and/or Agreement.

LABOR AND MATERIALS BOND

(NOTE: This Bond is issued simultaneously with the attached Performance Bonds in favor of the Owner.)

KNOW ALL MEN BY THESE PRESENTS:

That we, _____ (an individual, a partnership, a corporation)

duly organized under the Laws of the State (or Commonwealth) of _____,

having a usual place of business at _____,

as Principal, and _____ a corporation duly organized

under the Laws of the State (or Commonwealth) of _____,

and duly authorized to do business in the Commonwealth of Massachusetts,

and having a usual place of business at _____,

as Surety, are holden and stand firmly bound and obligated unto the Town of Uxbridge, Massachusetts, as obligee, in the sum of

_____ lawful money of the United States of America, to and for the true payment whereof we bind ourselves and, each of us, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal, be means of a written AGREEMENT (which together with the Contract Documents in said AGREEMENT referred to are collectively sometimes referred to as the "Contract") dated _____, has entered into a contract with the said obligee for "Town of Uxbridge, Massachusetts, Department of Public Works, Ironstone Road, Carney Street, and Aldrich Street Bridge Preservations, Contract No. 2024-12" in the Town of Uxbridge, Massachusetts, a copy of Which agreement is attached hereto and by references made a part hereof.

NOW, THEREFORE, THE CONDITION of this obligation is such, that if the Principal shall promptly make payments to all claimants as hereinafter defined, for all labor performed or furnished and for all materials and equipment furnished for or used in or in connection with the Work called for by said AGREEMENT and/or Contract and any modifications thereof, including lumber used but not incorporated in said Work, and for the rental or hire of vehicles, tools and other appliances and equipment furnished for or used in connection with said Work, this obligation shall be void; otherwise it shall remain in full force and effect, subject, however, to the following conditions:

- (a) A claimant is defined as one having a direct contract with the Principal or with a subcontractor of the Principal for labor, materials and/or equipment used or reasonably required for use in the performance of the said Work, labor and materials being construed to include that part of

water, gas, power, light, heat, oil, gasoline, telephone service or rental or equipment directly applicable to the said AGREEMENT and/or Contract and any modifications thereof.

- (b) The above named Principal and Surety hereby jointly and severally agree with the Owner that every claimant as herein defined, who has not been paid in full before the expiration of a period of ninety (90) days after the date on which the last of such claimant's work or labor was done or performed, or materials or equipment were furnished by such claimant, may sue on this bond for the use of such claimant, prosecute the suit to final judgment for such sum or sums as may be justly due claimant, and have execution thereon. The Owner shall not be liable for the payment of any costs or expenses of any such suit.
- (c) No suit or action shall be commenced hereunder by any claimant.

Unless claimant, other than one having a direct contract with the Principal, shall have given written notice to any two of the following: the Principal, the Owner, or the Surety above named, within ninety (90) days after such claimant did or performed the last of the work or labor, or furnished the last of the materials or equipment for which said claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the materials or equipment were furnished, or for whom the work or labor was done or performed. Such notice shall be served by mailing the same by registered mail or certified mail, postage prepaid, in an envelope addressed to the Principal, Owner or Surety at any place where an office is regularly maintained for the transaction of business, or served in any manner in which legal process may be served in the state in which the said Work is located, save that such service need not be made by a public officer;

After the expiration of one (1) year following the date on which the Principal ceased work on said AGREEMENT and/or Contract and any modifications thereof, it being understood, however, that if any limitation embodied in this bond is prohibited by any law controlling the construction hereof, such limitation shall be deemed to be amended so as to be equal to the minimum period of limitation permitted by such law.

Other than in a state court of competent jurisdiction in and for the county or other political subdivision of the State in which the said Work, or any part thereof, is situated, or in the United States District Court for the district in which the said Work, or any part thereof, is situated, and not elsewhere.

- (d) The amount of this bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder, inclusive of the payment by Surety of mechanics liens which may be filed of record against said AGREEMENT and/Contract or said Work, whether or not claim for the amount of such lien be presented under and against this bond.

The surety, for value received, agrees further that no changes in, omissions from, or alterations, modifications or additions to the terms and provisions of said AGREEMENT and/or Contract or the Work to be performed thereunder, and that no extensions of time given or changes made in the manner or time of making payments thereunder, shall in any way affect the Surety's obligations on this Bond, and the Surety hereby waives notice of any such changes, omissions, alterations, modifications, additions or extensions.

IN WITNESS WHEREOF, we have hereunto set our hands and seals to _____
counterparts of this Bond, this _____ day of _____, in
the year Two Thousand and _____.

Principal (SEAL)

Principal (SEAL)

Principal (SEAL)

Surety (SEAL)

Surety (SEAL)

NOTE:

If the Principal (Contractor) is a partnership, the Bond should be signed by each of the partners.

If the Principal (Contractor) is a corporation, the Bond should be signed in its correct corporate name by its duly authorized officer or officers.

If this Bond is signed on behalf of the Surety by an attorney-in-fact, there should be attached to it a duly certified copy of his power of attorney showing his authority to sign such Bonds.

There should be executed an approximate number of counterparts of the Bond corresponding to the number of counterparts of the AGREEMENT.

Date of Bond must not be prior to the date of Contract.

Important

Surety Companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state where the PROJECT is located.

The attention of the Surety Companies and Principal executing this Labor and Materials Bond is directed to the fact that said Bond shall remain in full effect throughout the life of any guaranty or warranty periods stipulated in the Contract Documents and/or Agreement

**CERTIFICATE OF ACKNOWLEDGMENT OF CONTRACTOR IF A CORPORATION
For CONTRACT BONDS**

State of _____

County of _____

On this _____ day of _____, 20 _____, before
me personally came _____ to me known, who being by me duly
sworn, did depose and say as follows:

That he resides at _____

and is the _____

of _____

the corporation described in and which executed the foregoing instrument; that he knows the corporate seal of said corporation; that the seal affixed to the foregoing instrument is such corporate seal and it was so affixed by order of the Board of Directors of said corporation; and that by the like order he signed thereto his name and official designation.

Notary Public (Seal)

My commission expires _____

STATE TAX CERTIFICATE

Pursuant to M.G.L., Ch. 62C, sec. 49A, I certify under the penalties of perjury that I, to the best of my knowledge and belief, have filed all state tax returns and paid all state taxes required under law.

Social Security Number *
Or Federal Identification Number *

Signature of Individual or
Corporate Name

by: _____
Corporate Office (if applicable)

* Submission of a Social Security Number or a Federal Identification Number is voluntary.

END OF SECTION

SECTION 00700

GENERAL CONDITIONS

- 1.01 General Provisions
- 1.02 Definitions
- 1.03 Materials and Equipment
 - A. General
 - B. Handling
 - C. Storage of Excavated Material
 - D. Inspection
 - E. Inspection Away from Site
 - F. Samples
 - G. Shop testing
- 1.04 Contractor's Shop and Working Drawings
- 1.05 Occupying Private Land
- 1.06 Interference with and Protection of Streets
- 1.07 Safety
- 1.08 Existing Facilities
 - A. Dimensions of Existing Structures
 - B. Proposed Pipe Location
 - C. Interference with Existing Works
 - D. Existing Utilities or Connections
 - E. Failure to Repair
 - F. Disturbance of Bounds
- 1.09 Work to Conform
- 1.10 Planning and Progress Schedules
- 1.11 Precautions During Adverse Weather
- 1.12 Temporary Heat
- 1.13 Electrical Energy
- 1.14 Certificates of Conformance
- 1.15 Patents
- 1.16 "Or Equal" Clause
- 1.17 Additional or Substitute Bonds
- 1.18 Separate Contracts
- 1.19 Payrolls of Contractor and Subcontractors
- 1.20 Payments by Contractor
- 1.21 "Dig Safe" Law
- 1.22 Fire Prevention and Protection
- 1.23 Dust Control
- 1.24 Disposal of Debris
- 1.25 Night, Saturday, Sunday and Holiday Work
- 1.26 Length of Work Day
- 1.27 Hurricane Protection
- 1.28 Reduction in Scope of Work

Sections of Division 1, General Requirements govern the execution of the Work of all sections of the specifications.

The Specifications are written in imperative and streamlined form. This imperative language is directed to the Contractor, unless stated otherwise.

DEFINITIONS

Wherever the words as listed in subsection 1.01 of the AGREEMENT or pronouns used in their stead occur in the Contract Documents, they shall have the meanings as given in the AGREEMENT.

MATERIALS AND EQUIPMENT

General

Unless otherwise provided in the Contract Documents, only new materials and equipment shall be incorporated in the Work.

As soon as possible after execution of the AGREEMENT, submit to the Engineer the names and addresses of the manufacturers and suppliers of all materials and equipment proposed to be incorporated into the Work.

When shop and working drawings are required as specified below, submit, prior to the submission of such drawings, data in sufficient detail to enable the Engineer to determine whether the manufacturer and/or the supplier have the ability to furnish a product meeting the Specifications.

Submit data relating to the materials and equipment proposed to be incorporated into the Work in sufficient detail to enable the Engineer to identify and evaluate the particular product and to determine whether it conforms to the Contract requirements. Such data shall be submitted in a manner similar to that specified for submission of shop and working drawings.

Handling

Handle, haul, and distribute materials and all surplus materials on the different portions of the Work, required to complete the Work in accordance with the Contract Documents.

Provide suitable storage room for materials and equipment during the progress of the Work, and be

GENERAL PROVISIONS

The duties and obligations imposed by these General Conditions 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.

responsible for the protection, loss of, or damage to materials and equipment furnished under this Contract, until the final completion and acceptance of the Work.

Pay all storage and demurrage charges by transportation companies and vendors.

Storage of Excavated Material

Place excavated materials and equipment to be incorporated in the Work so as not to injure any part of the Work or existing facilities and so that free access can be had at all times to all parts of the Work and to all public utility installations in the vicinity of the Work.

Materials shall be kept neatly piled and compactly stored in such locations as will cause a minimum of inconvenience to public travel and adjoining owners, tenants and occupants.

Inspection

All materials and equipment furnished by the Contractor to be incorporated in the Work shall be subject to the inspection of the Engineer.

No material shall be processed or fabricated for the Work or delivered to the work site without prior concurrence of the Engineer.

Facilities and labor for the storage, handling, and inspection of all materials and equipment shall be furnished by the Contractor.

Defective materials and equipment shall be removed immediately from the site of the Work.

Inspection away from Site

If work to be done, away from the construction site, is to be inspected on behalf of the Owner during its fabrication, manufacture, or testing, or before shipment, the Contractor shall give notice to the Engineer of the place and time where such fabrication, manufacture, testing, or shipping is to be done. Such notice shall be in writing and delivered to the Engineer in ample time, as determined solely by the Engineer, so that the necessary arrangements for the inspection can be made.

Samples

Submit samples of materials for tests, as the Engineer deems necessary to demonstrate conformance with the Specifications. Such samples, including concrete test cylinders, shall be furnished, taken, stored, packed,

and shipped by the Contractor as directed by the Engineer.

Furnish suitable molds for making concrete test cylinders. Except as otherwise expressly specified, the Owner shall make arrangements for, and pay for, the tests.

Pack samples so as to reach their destination in good condition, and label to indicate the material represented, the name of the building or work and location for which the material is intended, and the name of the Contractor submitting the sample. To ensure consideration of samples, notify the Engineer by letter that the samples have been shipped and properly describe the samples in the letter. Send letter of notification separate from the samples.

Submit data and samples, or place his orders, sufficiently early to permit consideration, inspection and testing before the materials and equipment are needed for incorporation in the Work. The consequences for failure to do so shall be the Contractor's sole responsibility.

In order to demonstrate the proficiency of workmen, or to facilitate the choice among several textures, types, finishes, surfaces, etc., provide such samples of workmanship of wall, floor, finish, etc., as may be required.

After review of the samples, data, etc. the materials and equipment used for the Work shall in all respects conform therewith.

Shop Testing

When required, furnish to the Engineer in triplicate, sworn copies of manufacturer's shop or mill tests (or reports from independent testing laboratories) relative to materials, equipment performance ratings, and concrete data.

CONTRACTOR'S SHOP AND WORKING DRAWINGS

Submit shop drawings to the Engineer for review and approval.

All submittals will be identified as the Engineer may require and in the number of copies also as required by the Engineer.

The data shown on the Shop Drawings will be complete regarding quantities, dimensions, specified performance and design criteria, materials and other data as particular to the Work that the Contractor proposes to provide.

OCCUPYING PRIVATE LAND

Entering or occupying with men, tools, materials, or equipment, any land outside the rights-of-way or property of the Owner (except after written consent from the proper parties) will not be permitted. A copy of the written consent shall be given to the Engineer.

INTERFERENCE WITH AND PROTECTION OF STREETS

Obtain permits from the governing authorities prior to obstructing any portion of a street, road, or private way. If any street, road or private way is rendered unsafe by the Contractor's operations, he shall make such repairs or provide such temporary ways or guards as ordered by the governing authorities.

Maintain streets, roads, private ways, and walks not closed in a passable and safe condition,

Provide at least 24 hours in advance, notice to the Owner, Police, Fire and School Departments in writing, with a copy to the Engineer, if the closure of a street or road is necessary. Cooperate with all Departments in the establishment of alternate routes and provide adequate detour signs, plainly marked and well lighted, in order to minimize confusion.

SAFETY

Take all precautions and provide safeguards to prevent personal injury and property damage. Provide protection for all persons including but not limited to employees and employees of other contractors and subcontractors; members of the public; and employees, agents and representatives of the Owner, the Engineer, and regulatory agencies that may be on or about the Work. Provide protection for all public and private property including but not limited to structures, pipes, and utilities, above and below ground.

Provide and maintain all safety equipment such as fences, barriers, signs, lights, walkways, guards and fire prevention and fire-fighting equipment.

Comply with all applicable Federal, State and local laws, ordinances, rules and regulations and lawful orders of all authorities having jurisdiction for the safety of persons and protection of property.

Designate a responsible member of his organization at the site whose duty shall be the prevention of

accidents. This responsible person shall have the authority to take immediate action to correct unsafe or hazardous conditions and to enforce safety precautions and programs.

EXISTING FACILITIES

Dimensions of Existing Structures

Where the dimensions and locations of existing structures are of importance in the installation or connection of any part of the Work, verify such dimensions and locations in the field before the fabrication of any material or equipment which is dependent on the correctness of such information.

Proposed Pipe Location

Exterior pipelines will be located substantially as indicated on the Drawings, but the right is reserved to the Owner, acting through the Engineer, to make such modifications in location as may be found desirable to avoid interference with existing structures or for other reasons. Where fittings, etc., are noted on the Drawings, such notation is for the Contractor's convenience and does not relieve him for laying and jointing different or additional items where required.

Small interior piping is indicated diagrammatically on the Drawings, and the exact location is to be determined in the field. Piping shall be arranged in a neat, compact, and workmanlike manner, with a minimum of crossing and interlacing, so as not to interfere with equipment or access way, and, in general, without diagonal runs.

Interference with Existing Works

Conduct operations so as to interfere as little as possible with existing works. Develop a program, in cooperation with the Engineer and interested officials, which shall provide for the construction and putting into service of the new works in the most orderly manner possible. This program shall be adhered to except as deviations therefrom are expressly permitted. All work of connecting with, cutting into, and reconstructing existing pipes or structures shall be planned to interfere with the operation of the existing facilities for the shortest time when the demands on the facilities best permit such interference, even though it may be necessary to work outside of normal working hours to meet these requirements. Electrical connections should be coordinated with the Owner so as to minimize disruption of normal plant operations. Before starting work which will interfere with the operation of existing facilities, perform preparatory

work and see that all tools, materials and equipment are made ready and at hand.

Repair utilities damaged by the Contractors operations during the progress of the work, and be responsible for correcting all damages to existing utilities and structures at no additional expense to the Owner. Contact the proper utility or authority to correct or make any changes due to utility or other obstructions during the work but the entire responsibility and expense shall be with the Contractor.

Make such minor modifications in the work relating to existing structures as may be necessary, without additional compensation.

Submit no claim for additional compensation by reason of delay or inconvenience in adapting his operations to the need for continuous flow of sewage.

Existing Utilities or Connections

The location of existing underground pipes, conduits, and structures, as shown, has been collected from the best available sources. The Owner, together with its agents, does not imply nor guarantee the data and information in connection with underground pipes, conduits, structures and such other parts as to their completeness, nor their locations as indicated. The Contractor shall assume that there are existing water, sewer, gas and other utility connections to each and every building enroute, whether they appear on the drawings or not. An expense and/or delay occasioned by utilities and structures, or damage thereof, including those not shown, shall be the responsibility of the Contractor, at no additional expense to the Owner.

Above ground utilities may be present in the areas of the proposed Work. Take all necessary actions and/or precautions, including, but not limited to, utility company notification and necessary relocations (both temporary and permanent), to insure proper protection of those aboveground utilities and appurtenances to be affected by his operations. All costs associated with the aboveground utilities shall be paid by the Contractor at no additional expense to the Owner.

If and when encountered, existing utilities shall be properly supported and protected during the construction work and the Engineer shall be notified accordingly. The operation of existing utilities shall not be interrupted except with written permission of the operator and owner of such utilities. Allow ample time for all measures as may be required for the continuance of existing utility operations. Take extreme precautions to minimize disruption of utilities. Make prompt and full restitution for repairs

by others for all disruptions caused by operations required to perform the Work.

Comply with all requirements of utility organizations involved.

Failure to Repair

Any emergency arising from the interruption of electric, telephone, gas, water, or sewer service due to the activities of the Contractor, shall be repaired by the Contractor as quickly as is possible.

If and when, in the opinion of the Owner, the Contractor is not initiating repair work as expeditiously as possible upon notification to do so, the Owner, may at his own option, make the necessary repairs using his own forces or those of others. The cost of such repairs shall be subtracted from the payments due to the Contractor.

Disturbance of Bounds

Replace all bounds disturbed during the construction operation, at no additional cost to the Owner. The bounds shall be relocated by a land surveyor approved by the Engineer and registered in the State that the Work is to be done.

WORK TO CONFORM

During its progress and on its completion, the Work shall conform to the lines, levels, and grades indicated on the Drawings or given by the Engineer and shall be built in strict accordance with the Contract Documents and the directions given from time to time by the Engineer.

All work done without instructions having been given therefore by the Engineer, without proper lines or levels, or performed during the absence of the Engineer, will not be estimated or paid for except when such work is authorized by the Engineer in writing. Work so done may be ordered uncovered or taken down, removed, and replaced at the Contractor's expense.

PLANNING AND PROGRESS SCHEDULES

Before starting the Work and from time to time during its progress, as the Engineer may request, the Contractor shall submit to the Engineer a written description of the methods he plans to use in doing the Work and the various steps he intends to take.

Within 14 calendar days after the date of formal execution of the AGREEMENT, the Contractor shall prepare and submit to the Engineer (a) a written schedule fixing the dates on which additional drawings, if any, will be needed by the Contractor and (b) a written schedule fixing the respective dates for the start and completion of various parts of the Work. Each such schedule shall be subject to review from time to time during the progress of the Work.

PRECAUTIONS DURING ADVERSE WEATHER

During adverse weather and against the possibility thereof, take all necessary precautions so that the Work may be properly done and satisfactory in all respects. When required by the manufacturer of the material or equipment to be installed, protection shall be provided by use of tarpaulins, wood and building-paper shelters, or other suitable means.

During cold weather, materials shall be preheated, if required, and the materials and adjacent structure into which they are to be incorporated shall be made and kept sufficiently warm so that a proper bond will take place and a proper curing, aging, or drying will result. Protected spaces shall be artificially heated by suitable means that will result in a moist or dry atmosphere according to the particular requirements of the work being protected. Ingredients for concrete and mortar shall be sufficiently heated so that the mixture will be warm throughout when used.

TEMPORARY HEAT

If temporary heat is required for the protection of the Work, provide and install suitable heating apparatus, provide adequate and proper fuel, and shall maintain heat as required.

Temporary heating apparatus shall be installed and operated in such manner that finished work will not be damaged.

ELECTRICAL ENERGY

Make all necessary applications and arrangements and pay all fees and charges for electrical energy for power and light necessary for the proper completion of the Work and during its entire progress. Provide and pay for all temporary wiring, switches, connections, and meters.

Provide sufficient electric lighting so that all work may be done in a workmanlike manner when there is not sufficient daylight.

CERTIFICATES OF CONFORMANCE

Furnish to the Engineer, in the manner as directed and prior to actual installation, notarized certificates of conformance for all materials to be furnished under this Contract. The notarized certificates of conformance shall state that the material to be furnished meets or exceeds all requirements specified under the Contract Documents. When so directed, the manufacturer's notarized certificates of conformance, certifying that the materials meet the requirements specified shall accompany each shipment of material. Unless otherwise specifically specified and/or directed by the Engineer, all testing of materials required under this Contract shall be provided by the Contractor at no additional expense to the Owner.

PATENTS

Pay, at no additional expense to the Owner, all applicable royalties and license fees associated with the materials and construction methods to be used under this Contract. Defend all suits or claims for infringements of any patent rights, and save the Owner and Engineer harmless from loss on account thereof, except that the Owner shall be responsible for any such loss when a particular process, design, or product of a particular manufacturer (s) is specifically specified with no option to the Contractor. However, if the Contractor has reason to believe that the design, process or product specified is an infringement of a patent, he shall be responsible for such loss unless he promptly gives such information to the Owner.

Refer to Specification Section 00500 Article 1.07, Patents, regarding the Contractor's responsibilities for any patent rights associated with the materials and construction methods to be used under this Contract.

" OR EQUAL " CLAUSE

Whenever a material or article required is specified or shown on the drawings by using the name of the proprietary product of a particular manufacturer or vendor, any material or article which will perform adequately, in the Engineer's sole judgment and/or opinion, the duties imposed by the general design may be considered equal and satisfactory providing the material or article so proposed is of equal substance. It shall not be purchased or installed without his written approval. In all cases new material shall be used in the project.

If more than one brand, name of material, device, or piece of equipment is shown or specified, each should

be regarded as the equal of the other. Any other brand, make of material, device or equipment, which in the opinion of the OWNER and/or ENGINEER, is the recognized equal of that specified (considering quality, workmanship, and economy of operation), and is suitable for the purpose intended, may be accepted.

ENGINEER will be allowed a reasonable time within which to evaluate submittals for Substitute Items. ENGINEER will be the sole judge of acceptability. No "Or Equal" or Substitute Item will be ordered, installed or utilized without ENGINEER's prior written acceptance which will be evidenced by either a Change Order or an approved Shop Drawing. OWNER may require CONTRACTOR to furnish at CONTRACTOR's expense a special performance guarantee or other surety with respect to any "or equal" or substitute. ENGINEER will record time required by ENGINEER and ENGINEER's Consultants in evaluating substitutes proposed or submitted by CONTRACTOR and in making changes to the Contract Documents. Whether or not ENGINEER accepts a Substitute Item so proposed or submitted by CONTRACTOR, CONTRACTOR shall reimburse OWNER for the charges of ENGINEER and ENGINEER's Consultants for evaluating each such proposed Substitute Item.

ADDITIONAL OR SUBSTITUTE BONDS

If at any time the Owner, for justifiable cause, shall be or become dissatisfied with any Surety or Sureties than upon the performance or payment bonds, the Contractor shall, within five (5) calendar days after notice from the Owner so to do, substitute an acceptable bond (or bonds) in such form and sum and signed by such other Surety or Sureties as may be acceptable to the Owner. The Contractor shall pay the premiums on such bonds with no additional expense to the Owner. No further payments shall be deemed due nor will be made until the new Surety or Sureties shall have furnished such as acceptable bond to the Owner.

SEPARATE CONTRACTS

The Owner reserves the right to let other contracts in connection with the construction of the contemplated work of this project or contiguous projects of the Owner. The Contractor, therefore, will afford any such other contractors reasonable opportunity for the introductions and storage of their materials and the execution of their work, will properly connect and coordinate his work with theirs, and will not commit or permit any act which will interfere with the performance of their work.

Coordinate operations with those of other contractors. Cooperation will be required in the arrangement for the storage of materials and in the detailed execution of the work.

It is essential that all parties interested in the project cooperate to the end that the entire project will be brought to a successful conclusion as rapidly as possible, but the Owner cannot guarantee that no interference or delay will be caused thereby. Interference and delay resulting from such cooperation shall not be basis of claims against the Owner.

PAYROLLS OF CONTRACTOR AND SUBCONTRACTORS

The Contractor and each of his Subcontractors shall prepare his payrolls on forms prescribed and in accordance with instructions to be furnished by the Owner. Within seven (7) days after the regular payment date of the payroll, the Contractor shall deliver to the Owner, with copies to the Engineer, a certified legible copy or copies of each such payroll. Each such payroll shall contain the statement required by the Federal Regulations issued pursuant to the "Anti-Kickback Statute", (48 Stat. 948; 18 U.S.C. 874; 40 U.S.C. 276C).

Carrying any person on his payrolls not employed by him will not be permitted. Carrying employees of a subcontractor on his payrolls will not be permitted, but such employees must be carried on the payrolls of the employing subcontractor.

Each Contractor or Subcontractor shall preserve his weekly payroll records for a period of three (3) years from the date of completion of the Contract. The payroll records shall set out accurately and completely the name, occupational classification, and hourly wage rate of each employee, hours worked by him during the payroll period and full weekly wages earned by him, and deductions made from such weekly wages and the actual weekly wages paid to him. Such payroll records shall be made available at all times for inspection by the Owner or his authorized representatives, the Engineer or by agents of the United States Department of Labor.

PAYMENTS BY CONTRACTOR

Pay for all traffic control, safety, transportation and utility services not later than the 20th day of the calendar month following that in which services are rendered. Reimbursable costs for services rendered, as specified in the Contract Documents, shall not be

incorporated into partial payment estimates until such time that the Contractor submits to the Engineer actual paid invoices from those in which services were rendered.

" DIG SAFE" LAW

Before proceeding with construction operations, the Contractor shall notify the State of Massachusetts Underground Plant Damage Prevention Systems (DIG SAFE at 811), and shall make such supplemental investigations, including exploratory excavations, by hand digging, as he deems necessary to uncover and determine the exact locations of utilities and structures, and shall have no claims for damages due to encountering subsurface structures or utilities in locations other than that shown on the drawings, or which were made known to the Contractor prior to construction operations. The Contractor shall be responsible and liable for all damages to the existing utilities and structures.

Before commencing with the construction of any work, identify any water main, gas main, telephone duct, electric duct, and/or other utility present which is or could be in conflict with the proposed work.

Relocation of the affected utilities shall be done as directed by the Owner and in accordance with the requirements of the utility company.

The attention of the Contractor is directed to the fact that certain utility companies may not fall under the provisions of "DIG SAFE". Individual utility company notifications by the Contractor shall be necessary to insure proper notification and protection of all existing utilities affected by this Contract.

FIRE PREVENTION AND PROTECTION

State and municipal rules and regulations with respect to fire prevention, fire-resistant construction and fire protection shall be strictly adhered to and all work and facilities necessary therefore shall be provided and maintained by the Contractor in an approved manner.

Provide fire protection equipment such as water tanks, hoses, pumps, extinguishers, and other materials, and apparatus, for the protection of the contract work, and adjacent property. Trained personnel experiences in the operation of all fire protection equipment and apparatus shall be available on the site whenever work is in progress, and at such other times as may be necessary for the safety of the public and the work.

DUST CONTROL

Exercise every precaution and means to prevent and control dust arising out of all construction operations from becoming a nuisance to abutting property owners or surrounding neighborhoods. Pavements adjoining pipe trench shall be kept clean of excess materials wherever and whenever directed by the Engineer. Repeated daily dust control treatment shall be provided to satisfactorily prevent the spread of dust until permanent pavement repairs are made and until earth stockpiles have been removed, and all construction operations that might cause dust have been completed. No extra payment will be made for dust control measures, compensation shall be considered to be included in the prices stipulated for the appropriate items as listed in the Bid.

DISPOSAL OF DEBRIS

The materials from the demolition, and those used in the construction of the Work throughout the project, shall be deposited in such a manner so as to not endanger persons or the Work, and so that free access may be had at any time to all hydrants, gates and existing equipment in the vicinity of the work. The materials shall be kept trimmed-up so as to be of as little inconvenience as possible to the public travel and plant operations. All excavated materials not approved for backfill and fill, all surplus material, and all rock and boulders resulting from the excavations, shall be removed and satisfactorily disposed of off the site by the Contractor, at no additional expense to the Owner.

The materials being removed from the pipelines and manholes during the cleaning process shall be deposited in such a manner as to not endanger the public, plant personnel or persons performing the work. Such debris deposits may be of such nature, high in biological organic contents, or chemically aggressive that they will require proper disposal in a safe, health risk free, environment. Contact the Owner and Engineer and all agencies having jurisdiction thereof, for approval of debris disposal methods and locations of disposal, prior to disposing of any or all debris removed from pipe cleaning methods. All debris shall be removed and satisfactorily disposed of off the work site, at no additional expense to the Owner.

NIGHT, SATURDAY, SUNDAY AND HOLIDAY WORK

No work shall be done at night or on Saturdays, or Sundays or holidays without the prior written approval of the Owner and Engineer.

LENGTH OF WORK DAY

The Owner retains the right to restrict the Contractor to an eight-hour workday. Such restrictions shall not be the basis for damages or claims against the Owner.

The Contractor's attentions is also directed to the fact that should it be deemed necessary to perform various items of work during off-peak flow or traffic hours, early morning or late night hours, then he shall notify the Engineer a minimum of 24 hours in advance as to his intentions and reasons for the change in work hours. The Contractor shall be responsible for properly contacting and informing all involved parties of such a change in work hours. The Contractor shall not be entitled to any additional compensation from the Owner for any expenses that may be incurred by change of working hours and/or scheduling.

HURRICANE PROTECTION

Should hurricane warnings be issued, the Contractor shall take every practicable precaution to minimize danger to persons, to the work and to adjacent property. These precautions shall include closing all openings; removing all loose materials, tools and/or equipment from exposed locations; and removing or securing scaffolding and other temporary work.

REDUCTION IN SCOPE OF WORK

The Owner reserves the right to decrease the scope of the work to be done under this Contract and to omit any work should the Owner deem it to be in the public interest to do so. To this end, the Owner reserves the right to reduce the quantity of any items or omit all of any as set forth in the BID, either prior to executing the contract or at any time during the progress of the work. The Owner further reserves the right, at anytime during the progress of the work, to restore all or part of any items previously omitted or reduced. Exercise by the Owner of the above rights shall not constitute any ground or basis of claim for damages or for anticipated profits on the work omitted.

END OF SECTION

SECTION 00800

SUPPLEMENTARY CONDITIONS

- 1.01 General
- 1.02 Limits of Normal Excavation
- 1.03 Bolts, Anchor Bolts, and Nuts
- 1.04 Concrete Inserts
- 1.05 Sleeves
- 1.06 Cutting and Patching
- 1.07 Foundations, Installations and Grouting
- 1.08 Services of Manufacturer's Representative
- 1.09 Operating Instructions and Parts List
- 1.10 Lubricants
- 1.11 Special Tools
- 1.12 Equipment Drive Guards
- 1.13 Protection Against Electrolysis
- 1.14 Covering Excavated Trench
- 1.15 Maintaining Trench Excavations
- 1.16 Disruption of Storm Drains
- 1.17 Precaution Against Hydraulic Uplift During Construction
- 1.18 Blasting
- 1.19 Nameplates
- 1.20 Special Safety Precautions
- 1.21 Land, Easements and Rights-of-Way
- 1.22 Cleaning Finished Work

1.01 GENERAL

A. These Supplementary Conditions are requirements which amend or supplement the General Conditions specified elsewhere.

B. The duties and obligations imposed by these Supplementary Conditions 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.

C. Assertion of any claim for any additional compensation or damages on account of and/or the fulfillment of these Supplementary Conditions will not be allowed.

1.02 LIMITS OF NORMAL EXCAVATION

A. In determining the quantities of excavation to which unit prices shall apply, the limits of normal width and depth of excavation shall be as described below, unless other limits are indicated in the Contract Documents.

1. For pipes in trenches, less than or equal to a depth of 5.0-feet, the normal width of the trench shall be 3.0-feet greater than the rated inside diameter of the pipe.

2. For pipes in trenches, at a depth greater than 5.0-feet, the width of excavation shall be 3.0-feet greater than the rated inside diameter of the pipe up to a point 5.0-feet above the bottom of the pipe barrel and a width above that point equivalent to the base width plus an allowance for 1 to 1 slopes on the sides of the trench for the measured depth described below.

3. The normal depth shall be measured from the bottom of the pipe barrel to the bottom of the roadway excavation or existing ground, whichever is lower.

B. Quantities for payment shall be in accordance with the above limits or the actual widths, whichever is less.

C. For concrete placed directly against undisturbed earth, the normal width and depth of the excavation for such concrete shall be measured to the neat lines of the concrete as indicated on the Drawings or as ordered.

D. For concrete placed against rock surfaces resulting from rock excavation, the normal width and depth of the excavation shall be measured to 4 inches outside the neat lines of the concrete as indicated on the Drawings or as ordered.

E. For other structures, except manholes as noted below, the normal width shall be measured between vertical planes 1.0 feet outside the neat lines of the several parts of the structure, except that the width at any elevation shall be measured as not less than the width at a lower elevation. The normal depth shall be measured to the underside of that part of the structure for which the excavation is made.

F. No additional width or depth of trenches excavated in earth or rock shall be allowed at standard circular manholes. The pay limit for rock removed outside proposed manholes shall commence one foot (1.0) outside the widest dimension of the structure or shall be the maximum connecting trench width, whichever is greater.

G. Wherever bell holes are required for jointing pipe, they shall be provided without additional

compensation over and above that resulting from measurements as above described.

1.03 BOLTS, ANCHOR BOLTS AND NUTS

A. Furnish bolts, anchor bolts, nuts, washers, plates and bolt sleeves required by equipment to be installed under this Contract in accordance herewith. Anchor bolts shall have suitable washers and, where so required, their nuts shall be hexagonal.

B. Anchor bolts, nuts, washers, plates, and bolt sleeves shall be galvanized unless otherwise indicated or specified.

C. Expansion bolts shall have malleable iron and lead composition elements of the required number of units and size.

D. Unless otherwise specified, stud, tap, and machine bolts, and nuts shall conform to the requirements of ASTM Standard Specification for Carbon Steel Externally and Internally Threaded Standard Fasteners, Designation A307. Hexagonal nuts of the same quality of metal as the bolts shall be used. All threads shall be clean cut and shall conform to ANSI Standard B1.1-1974 for Unified Inch Screw Threads (UN and UNR Thread Form).

E. Bolts, anchor bolts, nuts and washers, specified to be galvanized, shall be zinc coated, after being threaded, by the hot-dip process in conformity with the ASTM Standard Specification for Zinc (Hot-Galvanized) Coatings on Products Fabricated from Rolled, Pressed and Forged Steel Shapes, Plates, Bars and Strip, Designation A123, or the ASTM Standard Specifications for Zinc Coating (Hot Dip) on Iron and Steel Hardware, Designation A153, as is appropriate.

F. Bolts, anchor bolts, nuts, and washers specified to be stainless steel shall be Type 316 stainless steel unless otherwise indicated or specified.

G. Anchor bolts and expansion bolts shall be set accurately. If anchor bolts are set before the concrete has been placed, they shall be carefully held in suitable templates of acceptable design. Where indicated on the Drawings, specified, or required, anchor bolts shall be provided with square plates at least 4 inches by 4 inches by 3/8 inches or shall have square heads and washers and be set in the concrete forms with suitable pipe sleeves, or both. If anchor or expansion bolts are set after the concrete has been placed, all necessary drilling and grouting or caulking shall be done by the Contractor and care shall be take not to damage the

structure or finish by cracking, chipping, spalling, or otherwise during the drilling and caulking.

1.04 CONCRETE INSERTS

A. Concrete inserts for hangers shall be designed to support safely, in the concrete that is used, the maximum load that can be imposed by the hangers used in the inserts. Inserts for hangers shall be of a type which will permit adjustment of the hangers both horizontally (in one plane) and vertically and locking of the hanger head or nut. All inserts shall be galvanized.

1.05 SLEEVES

A. Unless otherwise indicated on the Drawings or specified, openings for the passage of pipes through floors and walls shall be formed of sleeves of standard-weight, galvanized steel pipe. The sleeves shall be of ample diameter to pass the pipe and its insulation, if any, and to permit such expansion as may occur. Sleeves shall be of sufficient length to be flush at the walls and the bottom of slabs and to project 1 inch above the finished floor surface. Threaded nipples shall not be used as sleeves.

B. Sleeves in exterior walls below ground or in walls to have liquids on one or both sides shall have a 2 inch annular fin of 1/8 inch plate welded with a continuous weld completely around the sleeve at about mid-length. Sleeves shall be galvanized after the fins are attached.

C. All sleeves shall be set accurately before the concrete is placed or shall be built in accurately as the masonry is being built.

1.06 CUTTING AND PATCHING

A. The Contractor shall leave all chases or openings for the installation of his own or any other contractor's or subcontractor's work, or shall cut the same in existing work, and shall see that all sleeves or forms are at the Work and properly set in ample time to prevent delays. He shall see that all such chases, openings, and sleeves are located accurately and are of proper size and shape and shall consult with the Engineer and the contractors and subcontractors concerned in reference to this work.

B. In case of his failure to leave or cut all such openings or have all such sleeves provided and set in proper time, he shall cut them or set them afterwards at his own expense, but in so doing he shall confine the

cutting to the smallest extent possible consistent with the work to be done. In no case shall piers or structural members be cut without the written consent of the Engineer.

C. The Contractor shall carefully fit around, close up, repair, patch, and point around the work specified herein to the satisfaction of the Engineer.

D. All of this work shall be done by careful workmen competent to do such work and with the proper small hand tools. Power tools shall not be used except where, in the opinion of the Engineer, the type of tool proposed can be used without damage to any work or structures and without inconvenience or interference with the operation of any facilities. The Engineer's concurrence with the type of tools shall not in any way relieve or diminish the responsibility of the Contractor for such damage, inconvenience, or interference resulting from the use of such tools.

E. The Contractor shall not cut or alter the work of any subcontractors or any other contractor, nor permit any of his subcontractors to cut or alter the work of any other contractor, or subcontractor, except with the written consent of the contractor or subcontractor whose work is to be cut or altered or with the written consent of the Engineer. All cutting and patching or repairing made necessary by the negligence, carelessness, or incompetence of the Contractor or any of his subcontractors shall be done by or at the expense of the Contractor and shall be the full responsibility of the Contractor.

1.07 FOUNDATIONS, INSTALLATION AND GROUTING

A. Furnish materials and construct suitable concrete foundation for all equipment installed under this Contract, even though such foundations may not be indicated on the Drawings. The tops of foundations shall be at such elevations as will permit grouting as specified below.

B. Equipment shall be installed by skilled mechanics and in accordance with the instruction of the manufacturer.

C. In setting pumps, motors, and other items of equipment customarily grouted, make an allowance of at least 1-in. for grout under the equipment bases. Shims used to level and adjust the bases shall be steel. Shims may be left embedded in the grout, in which case they shall be installed neatly and so as to be as inconspicuous as possible in the completed work.

Unless otherwise permitted, all grout shall be a suitable nonshrink grout.

D. Grout shall be mixed and placed in accordance with the recommendations of the manufacturer. Where practicable, the grout shall be placed through the grout holes in the base and worked outward and under the edges of the base and across the rough top of the concrete foundation to a peripheral form so constructed as to provide a suitable chamber around the top edge of the finished foundation.

E. Where such procedure is impracticable, the method of placing grout shall be as permitted by the Engineer. After the grout has hardened sufficiently, all forms, hoppers, and excess grout shall be removed, and all exposed grout surfaces shall be patched in an approved manner, if necessary, given a burlap-rubbed finish, and painted with at least two coats of an acceptable paint.

1.08 SERVICES OF MANUFACTURER'S REPRESENTATIVE

A. Arrange for the services of qualified factory service representatives from the companies manufacturing or supplying equipment and/or materials to be used or installed in the work as specified, to perform the following duties.

B. After installation of the listed equipment has been completed and the equipment is presumably ready for operation, but before others operate it, the representative shall inspect, operate, test, and adjust the equipment. The inspection shall include but shall not be limited to, the following points as applicable:

1. Soundness (without cracked or otherwise damaged parts).
2. Completeness in all details, as specified.
3. Correctness of setting, alignment, and relative arrangement of various parts.
4. Adequacy and correctness of packing, sealing and lubricants.

C. The operation, testing, and adjustment shall be as required to prove that the equipment is left in proper condition for satisfactory operation under the conditions specified.

D. On completion of his work, the manufacturer's or supplier's representative shall submit in triplicate to the Engineer a complete signed report of the result of his inspection, operation, adjustments, and tests. The

report shall include detailed descriptions of the points inspected, tests and adjustments made, quantitative results obtained if such are specified, and suggestions for precautions to be taken to ensure proper maintenance. The report also shall include a certificate that specifically states "the equipment conforms to the requirements of the Contract and is ready for permanent operation and that nothing in the installation will render the manufacturer's warranty null and void".

E. After the Engineer has reviewed the reports from the manufacturer's representatives, the Contractor shall make all arrangements to have the manufacturer's representatives present when the field acceptance tests are made by the Engineer without additional cost to the Owner.

1.09 OPERATING INSTRUCTIONS AND PARTS LISTS

A. Where reference is made in the Technical Specifications to operating instructions and spare parts lists, furnish, for each piece of equipment, six complete sets giving the information listed below:

1. Clear and concise instructions for the operation, adjustment, and lubrication and other maintenance of the equipment. These instructions shall include a complete lubrication chart.
2. List of all parts for the equipment, with catalog numbers and other data necessary for ordering replacement parts.

B. Such instructions and parts lists shall be annotated to indicate only the specific equipment furnished. References to other sizes and types or models of similar equipment shall be deleted or neatly lined out.

C. Such operating instructions and parts lists shall be delivered to the Engineer at the same time that the equipment to which they pertain is delivered to the site.

1.10 LUBRICANTS

A. During testing and prior to acceptance, Furnish all lubricants necessary for the proper lubrication of all equipment furnished under this Contract.

1.11 SPECIAL TOOLS

A. For each type of equipment furnished provide a complete set of all special tools (including grease guns or other lubricating devices) which may be necessary for the adjustment, operation, maintenance, and disassembly of such equipment. Tools shall be high-grade, smooth, forged, alloy, tool steel. Grease guns shall be lever type.

B. Special tools are considered to be those tools which because of their limited use are not normally available, but which are necessary for the particular equipment.

C. Special tools shall be delivered at the same time as the equipment to which they pertain. Properly store and safeguard such special tools until completion of the work, at which time they shall be formally transmitted and delivered to the Owner.

1.12 EQUIPMENT DRIVE GUARDS

A. All equipment driven by open shafts, belts, chains, or gears shall be provided with acceptable all-metal guards enclosing the drive mechanism. Guards shall be constructed of galvanized sheet steel or galvanized woven wire or expanded metal set in a frame of galvanized steel members. Guards shall be secured in position by steel braces or straps that will permit easy removal for servicing the equipment. The guards shall conform in all respects to all applicable safety codes and regulations.

1.13 PROTECTION AGAINST ELECTROLYSIS

A. Where dissimilar metals are used in conjunction with each other, suitable insulation shall be provided between adjoining surfaces so as to eliminate direct contact and any resultant electrolysis. The insulation shall be bituminous impregnated felt, heavy bituminous coatings, nonmetallic separators or washers, or by other acceptable materials.

1.14 COVERING EXCAVATED TRENCH

A. In addition to the requirements in Section 00700 titled Interference with and Protection of Streets. Cover all open excavations when construction operations are suspended at the end of the day, or in excavated trenches where work is not actually in progress. Cover shall be capable of withstanding AASHTO H20-S16 loading. This cover shall consist of steel plates or some other satisfactory cover of

adequate size and strength suitably held in place to keep all traffic out of excavations, all as verified in writing by the Contractor. The cover shall be laid over the excavation until it is backfilled.

1.15 MAINTAINING TRENCH EXCAVATIONS

A. The length of trench opened at any time, from point where ground is being broken to completed backfill, and also the amount of space in streets or public and private lands occupied by equipment, trench, and supplies, shall not exceed the length of space considered reasonably necessary and expedient by the Engineer. In determining the length of open trench or spaces for equipment, materials, supplies and other necessities, the Engineer will consider: the nature of the lands or streets where work is being done; types and methods of construction and equipment being used; inconvenience to the public or to private parties; possible dangers; and other proper matters. All work must be constructed with a minimum inconvenience and danger to the public and all other parties concerned.

B. Whenever any trench obstructs pedestrian and vehicular traffic in or to any public street, private driveway or property entrance, or on private property, take such means as may be necessary to maintain pedestrian and vehicular traffic and access. Until such time as the work may have attained sufficient strength to support backfill, or if for any other reason it is not expedient to backfill the trench immediately, construct and maintain suitable plank crossing and bridges to carry essential traffic in or to the street, driveway or property in question, as specified or directed.

C. Suitable signs, lights, and such items required by Police Authorities to direct traffic, shall be furnished and maintained by the Contractor at his own expense.

D. Keep streets and premises free from unnecessary obstructions, debris and all other materials. The Engineer may, at any time, order all equipment, materials, surplus from excavations, debris and all other materials lying outside that length of working space, promptly removed. Should the Contractor fail to remove such material within 24 hours after notice to remove the same, the Owner may cause any part or all of such materials to be removed by such persons as he may employ, at the Contractor's expense; and may deduct the costs thereof from payments which may be or may become, due to the Contractor under the Contract. In special cases, where public safety urgently demands it, the Owner may cause such

materials to be removed at the Contractor's expense without prior notice.

1.16 DISRUPTION OF STORM DRAINS

A. Portions of the Work may be located in areas that are serviced by storm drains. Take extreme precaution to minimize disruption of the drains, and repair and/or make restitution for repairs by others for all disruptions caused by the construction operations.

1.17 PRECAUTION AGAINST HYDRAULIC UPLIFT DURING CONSTRUCTION

A. Protect all structures against hydraulic uplift until such structures have beneficially completed.

1.18 BLASTING AND PRE-CONSTRUCTION BLASTING SURVEY

A. Blasting will not be permitted.

1.19 NAMEPLATES

A. With the exceptions mentioned below, each piece of equipment shall be provided with a substantial nameplate of noncorrodible metal, securely fastened in place and clearly and permanently inscribed with the manufacturer's name, model or type designation, serial number, principal rated capacities, electrical or other power characteristics, and similar information as appropriate. Coordinate nameplate text requirements with Engineer prior to fabrication. Nameplates shall be securely mounted in a readily visible location approved by the Engineer. Equipment Specification sections may contain additional information regarding nameplates.

B. This requirement shall not apply to standard manually operated hydrants or to gate, globe, check, and plug valves.

C. Each process valve shall be provided with a substantial tag of noncorrodible metal securely fastened in place and inscribed with an identification number in conformance with the Valve Identification Schedule indicated on the drawings or furnished later by the Engineer.

1.20 SPECIAL SAFETY PRECAUTIONS

A. Work includes the removal and demolition of the existing chlorine disinfection system. Chlorine is an extremely active chemical, which is extremely

toxic and corrosive. Chlorine must be stored and handled very carefully to avoid possible serious injuries or death to workers and the public.

B. The existing chlorine disinfection system consists of 1 ton chlorine cylinders, which store liquid chlorine under pressure, chlorination equipment, and piping. (Under atmospheric pressure, chlorine exists in the gaseous form). The system draws liquid chlorine from the cylinders evaporates the chlorine to gaseous form and then injects the gas into a plant water line to form a chlorine solution. This solution is then transported to various points of application.

C. Contractor shall take all necessary safety precautions in completing the work including coordinating with and complying with emergency procedures and requirements of the Owner, Police Department, Fire Department, and the Rhode Island Department of Environmental Management. The Contractor shall comply with all applicable federal, state and local laws, ordinances, rules and regulations and lawful orders of all authorities having jurisdiction for the safety of persons and protection of property. The Contractor shall have all necessary safety apparatus on-site and workers shall be instructed in its use.

D. Contractor to note that the atmosphere in areas of the Inlet Facility where wastewater is open to the air is classified as hazardous Class 1, Division 1, Group D by the NEC. Use appropriate equipment and provide adequate ventilation and safety equipment.

1.21 LAND, EASEMENTS, AND RIGHTS-OF-WAY

A. As indicated, a portion of the work may be located within easements and/or rights-of-way, obtained or which will be obtained by the Owner, through private property. On all other lands, the Contractor has no rights unless he obtains them from the proper parties as specified in Section 00700, Occupying Private Land.

B. Prior to issuance of the Notice to Proceed, the Owner shall obtain all land, easements and rights-of-way necessary for carrying out and for the completion of the work to be performed pursuant to the Contract Documents, unless otherwise mutually agreed.

C. The Owner shall provide to the Contractor information which delineates and describes the lands owned and rights-of-way acquired.

D. The Contractor shall provide at his own expense and without liability to the Owner any additional land and access thereto that the Contractor may desire for temporary construction facilities or for storage of equipment and materials.

E. If however, lands, easements or rights-of-way cannot be obtained before work on the project begins, the Contractor shall begin his work upon such land, easements or rights-of-way as have been previously acquired by the Owner, and no claims for damages whatsoever will be allowed by reason of its inability to procure the lands, easements, or rights-of-way for the said work, the Contractor shall not be entitled to make or assert a claim for damages by reason of the said delay, or to withdraw from the Contract except by consent of the Owner. Time for completion of work will be extended to such time as the Owner determines will compensate for the time lost by such delay, such determination to set forth in writing.

1.22 CLEANING FINISHED WORK

A. After the work is completed, the pipes, manholes and structures shall be carefully cleaned free of debris and dirt, broken masonry, and mortar, and left in first class condition, ready to use. All temporary or excess materials shall be disposed of off-site and the work left broom clean, to the satisfaction of the Engineer.

END OF SECTION

DIVISION 1

SECTION 1010

SUMMARY OF WORK

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Work covered by the Contract, listing of Owner, Project location, Engineer. Sequence requirements, the Contractor's use of the premises and Owner's occupancy requirements.

1.02 WORK COVERED BY CONTRACT DOCUMENTS

- A. The work to be done under this contract consists of furnishing all necessary labor, materials and equipment required for the preservation of the Ironstone Road, Carney Street, and Aldrich Street Bridges, including roadway reconstruction. The work includes stone masonry wall repairs, concrete wall and deck slab repairs, demolition and reconstruction of reinforced concrete wingwalls, installation of reinforced concrete moment slabs, installation of bridge and approach guardrail, removal of vegetation, removal of river channel debris, full depth pavement reconstruction, concrete sidewalk reconstruction, pavement markings and the provision of safety controls and signing for construction operations and other incidental items included in the contract documents necessary to complete the Project.
- B. All work is more particularly indicated, shown or described in the Drawings, Specifications, and other Contract Documents.

1.03 OWNER

Uxbridge Department of Public Works
147 Hecla Street
Uxbridge, MA
Telephone: (508) 278-8616
Contact: Benn Sherman, P.E., Director of Public Works

1.04 PROJECT LOCATION

Ironstone Road,
Carney Street, and
Aldrich Street
Uxbridge, MA 01569

1.05 ENGINEER

- A. BETA Group, Inc.
701 George Washington Highway
Lincoln, RI 02865
Telephone: 401-333-2382
Fax: 401-333-9225
Contact: Todd Warzecki, P.E.

Email: TWarzecki@beta-inc.com

1.06 WORK SEQUENCE

- A. In order that Work may be conducted with minimum inconvenience to the public and, work under this Contract may be coordinated with other work which may be under construction or contemplated, and that work under the Contract may conform to conditions which it has been undertaken or conditions attached to a right-of-way or particular location for this work, the Engineer may determine the point or points and time or times when portions of work will commence or be carried on and may issue orders pertaining to the work sequence, relative to the rate of progress on several portions of the work.

1.07 CONTRACTOR USE OF PREMISES

- A. The Contractor's use of premises shall be within the limits shown on the Drawings and as defined in Section 00500 – Contract Agreement, for the performance of the Work.
- B. The Contractor shall assume full responsibility for security of all materials and equipment on the site, including those of his subcontractor's.
- C. Obtain and pay for use of additional storage or work areas if needed to perform the Work.

PART 2 PRODUCTS

NOT USED

PART 3 EXECUTION

NOT USED

END OF SECTION

SECTION 01020

ALLOWANCES

PART 1 GENERAL

1.01 SUMMARY

A. Section Includes

1. Contingencies and their respective value which have been established in the BID as an estimated lump sum to facilitate comparison of bids only.

B. Related Sections

1. Section 00300 - Bid Forms
2. Section 01025 - Measurement and Payment

1.02 ALLOWANCES

A. Police – Bid Item No. 999.1

1. Coordinate and schedule uniformed traffic police prior to commencement of work on public ways.

B. Adjustment for Increases and Decreases to Fuel (Both Diesel and Gasoline), Asphalt, Cement, and Structural and Reinforcing Steel Base Prices – Bid Item No 999.2.

1. This allowance is based on the eventuality that there is an increase of 5% or more to the base prices of materials as described in Section 01065 of the Contract. In the event there is a decrease of 5% or more to the base price of materials as described in Section 01065 of the Contract, this item will result in a deduction to the total contract price, but will not reduce the Allowance balance.

1.03 PAYMENT PROCEDURES

A. Under these items, the Contractor shall be reimbursed for charges for the allowances required and authorized by the Owner and Engineer, as detailed in Section 01025 - Measurement and Payment.

B. The lump-sum price for allowances is established in Section 00300 - Bid Forms as an estimated figure to facilitate comparison of bids only. The actual amount to be paid under this item shall constitute full compensation for services rendered.

C. The lump-sum price for this item shall NOT include any costs associated with services rendered for routine utility markings, repair damages incurred as a result of the Contractor's operations, relocations of utilities done at the Contractor's request and/or convenience, or any other unauthorized services rendered by utility companies. The purpose of this item is strictly for the Contractor's reimbursement for those services authorized by the Owner or Engineer prior to the work being performed.

D. The Contractor will be paid based on the actual PAID invoiced amount from the authority in question as approved by the Engineer. If the total cost for such charges is greater or less than the allowance amount stated under this item of the BID, a debit or credit of the difference in cost shall be to the Owner.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Materials as required and ordered by the Engineer shall conform to the Contract Documents.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Installation, relocation, or repair of utilities, shall be performed in accordance with the Contract Documents.

END OF SECTION

SECTION 01025

MEASUREMENT AND PAYMENT

PART 1 GENERAL

1.01 SCOPE

- A. The purpose of this section is to define the basis of measurement and payment for the unit price or lump sum items listed in SECTION 00300, BID PROPOSAL.
- B. Section 9.00 of the Commonwealth of Massachusetts Department of Transportation (MassDOT) Standard Specifications for Highways and Bridges, 2023 Edition is hereby included in its entirety.

1.02 PAYMENT ITEMS

- A. Work Items of this Project are referenced with Items Numbers and Item Descriptions similar to those currently in use by the MassDOT, Highway Division.

1.03 BASIS OF MEASUREMENT AND PAYMENT

- A. Method of Measurement and Basis of Payment for Work Items shall be as called for under the appropriate section of the MassDOT Standard Specifications, unless modified in Sections 02500, Special Provisions and 02550, Construction Specifications.

1.04 BID ITEM NO. 999.2 – ADJUSTMENT FOR INCREASES AND DECREASES TO FUEL (BOTH DIESEL AND GASOLINE), ASPHALT, CEMENT, AND STRUCTURAL AND REINFORCING STEEL BASE PRICES.

- A. The base prices, period prices and methods used for determining the increases and decreases to fuel, (both diesel and gasoline), asphalt, cement and structural and reinforcing steel will be based on the prices and formulas as stated and described in Section 01065 PRICE ADJUSTMENTS FOR COST INCREASES AND DECREASES FOR FUELS (BOTH DIESEL AND GASOLINE), ASPHALT, CEMENT, AND STRUCTURAL AND REINFORCING STEEL.
- B. Price adjustments will not include any other miscellaneous costs, adjustments or mark-ups, including but not limited to overhead and profit.

END OF SECTION

SECTION 01026

SCHEDULE OF VALUES

PART 2 GENERAL

2.01 SUMMARY

A. Section Includes

Requirements for breakdown of lump sum bid.

B. Related Sections

Section 01300 - Submittals

2.02 BREAKDOWN OF LUMP SUM BID

A. Within 20 business days of the date of the executed Contract, a list detailing the breakdown of the lump sums bid by the appropriate Divisions of these Specifications or as otherwise directed by the Engineer, shall be submitted for review and concurrence by the Engineer. This list will be used by the Engineer as a guide in preparing estimates for payment. The list shall be an accurate representation of costs required to complete the Work in accordance with the Contract Documents.

B. A schedule of the monthly value of work done based on the Progress Schedule submitted under Section 01300 - Submittals shall be submitted within 20 business days of the date of the executed Contract. The schedule shall show the total sum of work done for each month of the projected construction period and shall be updated monthly to reflect the actual amount requisitioned for payment.

PART 3 PRODUCTS

NOT USED

PART 4 EXECUTION

NOT USED

END OF SECTION

SECTION 01035

MODIFICATION PROCEDURES

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes
 - 1. Procedures for making modifications to the Contract by change orders or other means.
- B. Related Sections
 - 1. Document 00500 - Agreement

1.02 CHANGE ORDERS

- A. In general Change Orders will be issued for modification of Contract documents which will incorporate changes in the Contract requirements, including additions or deletions in the Work; for unforeseen field conditions which will necessitate changes in the Work; changes in code provisions or other requirements of federal, state or local authority requiring changes in the Work; changes in the availability of products or for incorporating new products into the work and for changes directed by the Engineer for the benefit of the Owner.
- B. Authority to execute Change Orders shall be that of the Engineer and not of the Contractor. Changes Orders will, in general, originate by a “Change Order Proposal Request” or by issuance of a “Construction Change Authorization”.
- C. Unless authorized by the Engineer, no work shall be performed that is involved in the change until a formal Change Order is issued.
- D. To initiate a Change Order, the Engineer will forward a Change Order proposal request describing the proposed changes and if required, include additional or revised drawings and specifications soliciting a formal quotation of cost and time to complete the proposed Change Order work. Upon reaching mutual agreement on the cost and time, the Engineer will sign his approval of the Change Order and submit it to the Contractor for his full signature of acceptance.

1.03 FIELD ORDERS

- A. The Engineer may, to avoid costly removal of, or alterations to, present on-going work, issue a Work Directive Change authorizing the Contractor to proceed, subject to later negotiation of the price of the change.

1.04 PRICE AGREEMENTS

- A. Prices agreed upon to cover the Change Orders may be either by mutual acceptance of a lump sum or by unit prices as stated in the Contract bid proposal or actual direct cost plus a percentage for overhead, profit and other expenses consistent with Section 00500 – Contract Agreement.
- B. Work done by a subcontractor entitles the General Contractor a percentage of the sum of the actual direct cost, not including the subcontractor’s overhead and profit, consistent with Section 00500 – Contract Agreement.

C. Method for computing the cost of the change shall be based on the net additional increase. No overhead and profit shall be deducted from prices for changes deleting work.

D. The Change Order form document shall indicate the net adjustment (+/-) to the total Contract price as a result thereof including extension or reduction of time when applicable.

PART 2 PRODUCTS

NOT USED

PART 3 EXECUTION

NOT USED

END OF SECTION

SECTION 01050

FIELD ENGINEERING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Survey work and other field engineering responsibilities of the Contractor.

1.02 REQUIREMENTS

- A. Contractor shall be responsible for layout of the work and the establishing of lines and grades and the following.
- B. Establish elevations, lines, levels, reference marks, batter boards, etc., required during the progress of the Work. Verify such marks by instrument to confirm accuracy.
- C. Locate and protect survey control and reference points.
- D. Make, check, and be responsible for all measurements and dimensions necessary for the proper construction of the Work.
- E. Engineer will be permitted to check the lines, elevations, reference marks, batter boards, etc., set by the Contractor. The Contractor shall correct any errors found in lines, elevations, reference marks, batter boards, etc. Such a check shall not be construed as approval of the Contractor's work and shall not relieve or diminish the responsibility of the Contractor for the accurate construction and completion of the Work.
- F. Control datum for survey as shown on Drawings.

1.03 QUALITY ASSURANCE

- A. Qualifications: Employ a Civil Engineer or Land Surveyor registered within the Commonwealth of Massachusetts, acceptable to the Engineer.
- B. Certifications: Submit certificate signed by the Contractor's Engineer or Land Surveyor stating elevations and locations of the Work are in conformance with the Contract Documents.

PART 2 PRODUCTS

NOT USED

PART 3 EXECUTION

NOT USED

END OF SECTION

SECTION 01065

MATERIAL PRICE ADJUSTMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. General Provisions
- B. MGL Chapter 30 Section 38A
- C. Fuel Price Adjustment, (Both Diesel and Gas)
- D. Asphalt Price Adjustment
- E. Cement Price Adjustment
- F. Structural and Reinforcing Steel Price Adjustment

1.02 GENERAL PROVISIONS

- A. The herein specified material price adjustments are required in contracts for road, bridge water and sewer projects awarded under Chapter 30, Section 39M of the Massachusetts General Laws.
- B. Material price adjustments are not required for contracts awarded under Chapter 149, Section 44A of the Massachusetts General Laws.

1.03 MASSACHUSETTS GENERAL LAW CHAPTER 30 SECTION 38A

- A. Section 38A. "Contracts for road and bridge projects awarded as a result of a proposal or invitation for bids under section 39M shall include a price adjustment clause for each of the following materials: fuel, both diesel and gasoline; asphalt; concrete; and steel. Contracts for water and sewer projects awarded as a result of a proposal or invitation for bids under said section 39M shall include a price adjustment clause for fuel, both diesel and gasoline; liquid asphalt; and portland cement contained in cast-in-place concrete. A base price for each material shall be set by the awarding authority or agency and shall be included in the bid documents at the time the project is advertised. The awarding authority or agency shall also identify in the bid documents the price index to be used for each material. The price adjustment clause shall provide for a contract adjustment to be made on a monthly basis when the monthly cost change exceeds plus or minus 5 per cent."

1.04 MONTHLY PRICE ADJUSTMENTS FOR DIESEL FUEL AND GASOLINE

- A. 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 Owner, depending on an increase or decrease in the average price of diesel fuel or gasoline.
- B. 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

- C. The Base Price of Diesel Fuel and Gasoline will be the price as indicated in the Massachusetts DOT Highway Division's web site:
<https://www.mass.gov/massdot-contract-price-adjustments> for the month in which the contract was bid, which included State Tax.
- D. The Period Price will be the average of prices charged to the State, including State Tax for the bulk purchases made during each month.
- E. This adjustment will be effected 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.
- F. No adjustment will be paid for work done beyond the extended completion date of any contract.
- G. 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.
- H. 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

1.05 ASPHALT PRICE ADJUSTMENT

- A. This provision applies to all projects using greater than 100 tons of hot mix asphalt (HMA) mixtures containing liquid asphalt cement as stipulated in this section.
- B. 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.
- C. Base Price
 - 1. The Base Price of liquid asphalt on a project as listed herein, is a fixed price determined by the Department 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.
- D. Period Price
 - 1. 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/2019-massdot-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. Separate website postings using both the New Asphalt Period Price Method and the Old Asphalt Period Price Method were discontinued after June 2013.

E. Price Adjustment Determination, Calculation, and Payment

1. 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.
2. 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.
3. The Price Adjustment applies only to the actual virgin liquid asphalt content in the mixture placed on the job in accordance with the Standard Specifications for Highways and Bridges, Division III, Section M3.11.03.
4. 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:

$$\text{Price Adjustment} = \text{Tons of HMA Placed} \times \text{Liquid Asphalt Content \%} \times \text{RAP Factor} \times (\text{Period Price} - \text{Base Price})$$

5. No Price Adjustment will be allowed beyond the Completion Date of this Contract, unless there is a Department-approved extension of time.

1.06 CEMENT PRICE ADJUSTMENT

- A. This provision applies to all projects using greater than 100 Cubic Yards (76 Cubic Meters) of Portland cement concrete containing Portland cement as stipulated in this section. This Price Adjustment will occur on a monthly basis.
- B. The Price Adjustment will be based on the variance in price for the Portland cement component only from the Base Price to the Period Price. It shall not include transportation or other charges.
- C. The Base Price of Portland cement on a project is a fixed price determined at the time of bid by the Department by using the same method as for the determination of the Period Price (see below) and found herein.
- D. The Period Price of Portland cement will be determined by using the latest published price, in dollars per ton (U.S.), for Portland cement (Type I) quoted for Boston, U.S.A. in the **Construction Economics** section of *ENR Engineering News-Record* magazine or at the ENR website <http://www.enr.com> under **Construction Economics**. The Period Price will be posted

on the MassDOT website <https://www.mass.gov/massdot-contract-price-adjustments> the Wednesday immediately following the publishing of the monthly price in ENR, which is normally the first week of the month.

- E. The Contract Price of the Portland cement concrete mix will be paid under the respective item in the Contract. The price adjustment, as herein provided, 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.
- F. The price adjustment applies only to the actual Portland cement content in the mix placed on the job in accordance with the Contract Plans and Specifications. No adjustments will be made for any cement replacement materials such as fly ash or ground granulated blast furnace slag.
- G. The Price Adjustment will be a separate pay item. It will be determined by multiplying the number of cubic yards of Portland cement concrete placed during each monthly period times the Portland cement content percentage times the variance in price between the Base Price and Period Price of Portland cement.
- H. This Price Adjustment 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.
- I. No Price Adjustment will be allowed beyond the Completion Date of this Contract, unless there is an approved extension of time.

1.07 STRUCTURAL AND REINFORCING STEEL PRICE ADJUSTMENT

- A. This special provision applies to all projects containing the use of structural steel and/or reinforcing steel as specified elsewhere in the Contract work. It applies to all structural steel and all reinforcing steel, as defined below, on the project. Compliance with this provision is mandatory, i.e., there are no “opt-in” or “opt-out” clauses. Price adjustments will be handled as described below and shall only apply to unfabricated reinforcing steel bars and unfabricated structural steel material, consisting of rolled shapes, plate steel, sheet piling, pipe piles, steel castings and steel forgings.
- B. Price adjustments will be variances between Base Prices and Period Prices. Base Prices and Period Prices are defined below.
- C. Price adjustments will only be made if the variances between Base Prices and Period Prices are 5% or more. A variance can result in the Period Price being either higher or lower than the Base Price. Once the 5% threshold has been achieved, the adjustment will apply to the full variance between the Base Price and the Period Price.
- D. Price adjustments will be calculated by multiplying the number of pounds of unfabricated structural steel material or unfabricated reinforcing steel bars on a project by the index factor calculated as shown below under Example of a Period Price Calculation.
- E. Price adjustments will *not* include guardrail panels or the costs of shop drawing preparation, handling, fabrication, coatings, transportation, storage, installation, profit, overhead, fuel costs, fuel surcharges, or other such charges not related to the cost of the unfabricated structural steel and unfabricated reinforcing steel.

F. The weight of steel subject to a price adjustment shall not exceed the final shipping weight of the fabricated part by more than 10%.

G. Base Prices and Period Prices are defined as follows:

1. Base Prices of unfabricated structural steel and unfabricated reinforcing steel on a project are fixed prices determined by the MassDOT and found in the table below. While it is the intention to make this table comprehensive, some of a project's unfabricated structural steel and/or unfabricated reinforcing steel may be inadvertently omitted. Should this occur, the Contractor shall bring the omission to the Engineers attention so that a contract alteration may be processed that adds the missing steel to the table and its price adjustments to the Contract.
2. The Base Price Date is the month and year in which the Owner opened bids for the project. This date is used to select the Base Price Index.
3. Period Prices of unfabricated structural steel and unfabricated reinforcing steel on a project are variable prices that have been calculated using the Period Price Date and an index of steel prices to adjust the Base Price.
4. The Period Price Date is the date the steel was delivered to the fabricator as evidenced by an official bill of lading submitted to the Owner containing a description of the shipped materials, weights of the shipped materials and the date of shipment. This date is used to select the Period Price Index.
5. The index used for the calculation of Period Prices is the U.S. Bureau of Labor Statistics (BLS) Producer Price Index (PPI) Series ID WPU101702 (Not Seasonally Adjusted, Group: Metals and Metal Products, Item: Semi-finished Steel Mill Products.) As this index is subject to revision for a period of up to four (4) months after its original publication, no price adjustments will be made until the index for the period is finalized, i.e., the index is no longer suffixed with a "(P)".

H. Period Prices are determined as follows:

1. $\text{Period Price} = \text{Base Price} \times \text{Index Factor}$
2. $\text{Index Factor} = \text{Period Price Index} / \text{Base Price Index}$

I. Example of a Period Price Calculation:

1. Calculate the Period Price for December 2009 using a Base Price from March 2009 of \$0.82/Pound for 1,000 Pounds of ASTM A709 (AASHTO M270) Grade A36 Structural Steel Plate.
2. The Period Price Date is December 2009. From the PPI website*, the Period Price Index = 218.0.
3. The Base Price Date is March 2009. From the PPI website*, the Base Price Index = 229.4.
4. $\text{Index Factor} = \text{Period Price Index} / \text{Base Price Index} = 218.0 / 229.4 = 0.950$
 $\text{Period Price} = \text{Base Price} \times \text{Index Factor} = \$0.82/\text{Pound} \times 0.950 = \$0.78/\text{Pound}$
5. Since $\$0.82 - \$0.78 = \$0.04$ is less than 5% of \$0.82, no price adjustment is required.
6. If the \$0.04 difference shown above was greater than 5% of the Base Price, then the price adjustment would be 1,000 Pounds \times \$0.04/Pound = \$40.00. Since the Period Price of \$0.78/Pound is less than the Base Price of \$0.82/Pound, indicating a drop in the price of

steel between the bid and the delivery of material, a credit of \$40.00 would be owed to the Owner. When the Period Price is higher than the Base Price, the price adjustment is owed to the Contractor.

7. * To access the PPI website and obtain a Base Price Index or a Period Price Index, go to <http://data.bls.gov/cgi-bin/srgate>

J. The Contractor will be paid for unfabricated structural steel and unfabricated reinforcing steel under the respective contract pay items or for all components constructed of either structural steel or reinforced Portland cement concrete under their respective Contract Pay Items.

K. Price adjustments, as herein provided for, will be paid separately as follows:

1. Structural Steel

- i. Pay Item Number 999.449 for positive (+) pay adjustments (payments to the contractor)
- ii. Pay Item Number 999.457 for negative (-) pay adjustments (credits to the Owner)

2. Reinforcing Steel

- i. Pay Item Number 999.466 for positive (+) pay adjustments (payments to the contractor)
- iii. Pay Item Number 999.467 for negative (-) pay adjustments (credits to the Owner)

L. No price adjustment will be made for price changes after the Contract Completion Date, unless the Owner has approved an extension of Contract Time for the Contract.

Steel Type	Price per Pound
ASTM A615 Grade 60 (AASHTO M31 Grade 60) Reinforcing Steel	\$0.70
ASTM A709 Grade 36 / AASHTO M270 Grade 36 Structural Steel Plate	\$1.05
ASTM A709 Grade 50 / AASHTO M270 Grade 50 Structural Steel Plate	\$1.05
ASTM A709 Grade 50 / AASHTO M270 Grade 50 Structural Steel Shapes	\$0.98
ASTM A36 Grade 50	\$1.05
ASTM A570 Grade 50	\$1.04

END OF SECTION

SECTION 01067

STATE OF MASSACHUSETTS AND LOCAL REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. EXCERPTS FROM MASSACHUSETTS STATUTES
- B. MINIMUM WAGE RATES
- C. SAFETY AND HEALTH

1.02 EXCERPTS FROM MASSACHUSETTS STATUTES

- A. In addition to the requirements as set forth under "Compliance with Laws" in the AGREEMENT, particular attention is directed to certain stipulations of Chapter 149 of the General Laws of Massachusetts, as amended to date as follows:

Section 25. "Every employee in public work shall lodge, board, and trade where and with whom he elects; and no person or his agents or employees under contract with the commonwealth, a county, city or town, or with a department, board, commission or officer acting therefore, for the doing of public work shall directly or indirectly require, as a condition of employment therein, that the employee shall lodge, board or trade at a particular place or with a particular person. This section shall be made a part of the contract for such employment."

Section 26. "In the employment of mechanics and apprentices, teamsters, chauffeurs and laborers in the construction of public works by the commonwealth, or by a county, town or district, or by persons given to citizens of the commonwealth who have been residents of the commonwealth for at least six months at the commencement of their employment who are male veterans as defined in clause forty-three of section seven of chapter four and who are qualified to perform the work to which the employment relates;

and secondly, to citizens of the commonwealth generally who have been residents of the commonwealth for at least six months at the commencement of their employment, and if they cannot be obtained in sufficient numbers then to citizens of the United States, and every contract for such work shall contain a provision to this effect."

Section 34. "Every contract, except for the purchase of, material or supplies, involving the employment of laborers, workmen, mechanics, foremen, or inspectors, to which the commonwealth or any county or any town, subject to section thirty, is a party, shall contain a stipulation that no laborer, workman, mechanic, foreman or inspector working within the commonwealth, in the employ of the contractor, subcontractor or other person doing or contracting to do the whole or a part of the work contemplated by the contract, shall be required or permitted to work more than eight hours in any one day or more than 48 hours in any one week, or more than six days in any one week, except in cases of emergency, or in case any town subject to section thirty-one is a party to such a contract, more than eight hours in any one day, except as aforesaid..."

Section 34A. "Every contract for the construction, alteration, maintenance, repair or demolition of or addition to, any public building or other public works for the commonwealth or any political subdivision thereof shall contain stipulations requiring that the contractor shall, before commencing performance of such contract, provide by insurance for the payment of compensation and the furnishing of other benefits under chapter one hundred and fifty-two to all persons to be employed under the contract, and that the contractor shall continue such insurance in full force and effect during the term of the contract. No officer or agent contracting in behalf of the commonwealth or any political subdivision thereof shall award such a contract until he has been furnished with sufficient proof of compliance with the aforesaid stipulations. Failure to provide and continue in force such insurance as aforesaid shall be deemed a material breach of contract and shall operate as an immediate termination thereof. No cancellation of such insurance, whether by the insurer or by the insured, shall be valid unless written notice thereof is given by the party proposing cancellation to the other party and to the officer or agent who awarded the contract at least fifteen days prior to the intended effective date thereof, which date shall be expressed in said notice. Notice of cancellation sent by the party proposing receipt of the addressee requested, shall be a sufficient notice..."

Section 34B. "Every contract for the construction, alteration, maintenance, repair or demolition of, or addition to, any public works for the commonwealth or any political subdivision thereof shall contain stipulations requiring that the contractor shall pay to any reserve police officer employed by him in any city or town the prevailing rate of wage paid to regular police officers employed by him in such city or town."

Attention is directed to Chapter 774 of the Acts of 1972 amending Section 39F of Chapter 30 to read as follows:

Section 39F. "(1) Every contract awarded shall contain the following subparagraphs and in each case those subparagraphs shall be binding between the general contractor and each subcontractor.

"(a) Forthwith after the general contractor receives payment on account of a periodic estimate, the general contractor shall pay to each subcontractor the amount paid for the labor performed and the materials furnished by that subcontractor, less any amount specified in any court proceedings barring such payment and also less any amount claimed due from the subcontractor by the general contractor.

(b) Not later than the sixty-fifth day after each subcontractor substantially completes his work in accordance with the plans and specifications, the entire balance due under the subcontract less amounts retained by the awarding authority as the estimated cost of completing the incomplete and unsatisfactory items of work, shall be due the subcontractor; and the awarding authority shall pay that amount to the general contractor. The general contractor shall forthwith pay to the subcontractor the full amount received from the awarding authority less any amount specified in any court proceedings barring such payment and also less any amount claimed due from the subcontractor by the general contractor.

(c) Each payment made by the awarding authority to the general contractor pursuant to subparagraphs (a) and (b) of this paragraph for the labor performed and the materials furnished by a subcontractor shall be made to the general contractor for the account of that subcontractor; and the awarding authority shall take reasonable steps to compel the general contractor to make each such payment to each such subcontractor. If the awarding authority has received a demand for direct payment from a subcontractor for any amount which has already been included in a payment to the general contractor for payment to the subcontractor as provided in

subparagraphs (a) and (b), the awarding authority shall act upon the demand as provided in this section.

(d) If, within seventy days after the subcontractor has substantially completed the subcontractor work, the subcontractor has not received from the general contractor the balance due under the subcontract including any amount due for extra labor and materials furnished to the general contractor, less any amount retained by the awarding authority as the estimated cost of completing the incomplete and unsatisfactory items of work, the subcontractor may demand direct payment of that balance from the awarding authority. The demand shall be by a sworn statement delivered to or sent by certified mail to the awarding authority, and a copy shall be delivered to or sent by certified mail to the general contractor at the same time. The demand shall contain a detailed breakdown of the balance due under the subcontract and also a statement of the status of completion of the subcontract work. Any demand made after substantial completion of the subcontract work shall be valid even if delivered or mailed prior to the seventieth day after the subcontract work. Within ten days after the subcontractor has delivered or so mailed the demand to the awarding authority and delivered or so mailed a copy to the general contractor, the general contractor may reply to the demand. The reply shall be by a sworn statement delivered to or sent by certified mail to the awarding authority and a copy shall be delivered to or sent by certified mail to the subcontractor at the same time. The reply shall contain a detailed breakdown of the balance due under the subcontract including any amount due for extra labor and materials furnished to the general contractor and of the amount due for each claim made by the general contractor against the subcontractor.

(e) Within fifteen days after receipt of the demand by the awarding authority, but in no event prior to the seventieth day after substantial completion of the subcontract work, the awarding authority shall make direct payment to the subcontractor of the balance due under the subcontract including any amount due for extra and materials furnished to the general contractor, less any amount (i) retained by the awarding authority as the estimated cost of completing the incomplete or unsatisfactory items of work, (ii) specified in any court proceedings barring such payment, or (iii) disputed by the general contractor in the sworn reply; provided, that the awarding authority shall not deduct from a direct payment any amount as provided in part (iii) if the reply is not sworn to, or for which the sworn reply does not contain the detailed breakdown required by subparagraph (d). The awarding authority shall make further direct payments to the Subcontractor forthwith after the removal of the basis for deductions from direct payments made as provided in parts (i) and (ii) of this subparagraph.

(f) The awarding authority shall forthwith deposit the amount deducted from a direct payment as provided in part (iii) of subparagraph (e) in an interest-bearing joint account in the names of the general contractor and the subcontractor in a bank in Massachusetts selected by the awarding authority or agreed upon by the general contractor and the subcontractor and shall notify the general contractor and the subcontractor of the date of the deposit and the bank receiving the deposit. The bank shall pay the amount in the account, including accrued interest, as provided in an agreement between the general contractor and the subcontractor or as determined by decree of a court of competent jurisdiction.

(g) All direct payments and all deductions from demands for direct payments deposited in an interest-bearing account or accounts in a bank pursuant to subparagraph (f) shall be made out of amounts payable to the general contractor at the time of receipt of a demand for direct payment for a subcontractor and out of amounts which later become payable to the general contractor and in the order of receipt of such demands from subcontractors. All direct payments

shall discharge the obligation of the awarding authority to the general contractor to the extent of such payment.

(h) The awarding authority shall deduct from payments to a general contractor amounts which, together with the deposits in interest-bearing accounts pursuant to subparagraph (f), are sufficient to satisfy all unpaid balances of demands for direct payment received from subcontractors. All such amounts shall be earmarked for such direct payments, and the subcontractors shall have a right in such deductions prior to any claims against such amounts by creditors of the general contractor."

Section 39L. The commonwealth and every county, city, town, district, board, commission or other public body which, as the awarding authority, requests proposals, bids or sub-bids for any work in the construction, reconstruction, alteration, remodeling, repair or demolition of any public building or other public works (1) shall not enter into a contract for the work with, and shall not approve as a subcontractor furnishing labor and materials for a part of the work, a foreign corporation which has not filed with the awarding authority a certificate of the state secretary stating that the corporation has complied with requirements of section 15.03 of subdivision A of Part 15 of chapter 156D and the date of compliance, and further has filed all annual reports required by section 16.22 of subdivision B of Part 16 of said chapter 156D, and (2) shall report to the state secretary and to the department of corporations and taxation any foreign corporation performing work under such contract or subcontract, and any person, other than a corporation, performing work under such contract or subcontract, and residing or having a principal place of business outside the commonwealth.

Attention is also directed to Chapter 774 of the Acts of 1972 further amending Chapter 30 by adding after Section 39M the following section:

Section 39M. (b) Specifications for such contracts, and specification for contracts awarded pursuant to the provisions of said sections forty-four A to forty-four L of said chapter one hundred and forty-nine, shall be written to provide for full competition for each item of material to be furnished under the contract; except, however, that said specifications may be otherwise written for sound reasons in the public interest stated in writing in the public records of the awarding authority or promptly given in writing by the awarding authority to anyone making a written request therefore, in either instance such writing to be prepared after reasonable investigation. Every such contract shall provide that an item equal to that named or described in the said specifications may be furnished; and an item shall be considered equal to the item so named or described if (1) it is at least equal in quality, durability, appearance, strength and design, (2) it will perform at least equally the function imposed by the general design for the public work being contracted for or the material being purchased, and (3) it conforms substantially, even with deviations, to the detailed requirements for the item in the said specifications. For each item of material the specifications shall provide for either a minimum of three named brands of material or a description of material which can be met by a minimum of three manufacturers or producers, and for the equal of any one of said named or described materials.

Section 39N. "Every contract subject to section forty-four A of chapter one hundred forty-nine or subject to section thirty-nine M of chapter thirty shall contain the following paragraph in its entirety and an awarding authority may adopt reasonable rules or regulations in conformity with that paragraph concerning the filing, investigation and settlement of such claims:

If, during the progress of the work, the contractor or the awarding authority discovers that the actual subsurface or latent physical conditions encountered at the site differ substantially or materially from those shown on the plans or indicated in the contract documents either the contractor or the contracting authority may request an equitable adjustment in the contract price of the contract applying to work affected by the differing site conditions. A request for such an adjustment shall be in writing and shall be delivered by the party making such claim to the other party as soon as possible after such conditions are discovered. Upon receipt of such a claim from a contractor, or upon its own initiative, the contracting authority shall make an investigation of such physical conditions, and, if they differ substantially or materially from those shown on the plans or indicated in the contract documents or from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the plans and contract documents are of such a nature as to cause an increase or decrease in the cost of performance of the work or a change in the construction methods required for the performance of the work which results in an increase or decrease in the cost of the work, the contracting authority shall make an equitable adjustment in the contract price and the contract shall be modified in writing accordingly."

Attention is also directed to Chapter 1164 of the Acts of 1973 further amending Chapter 30 by adding after Section 39N the following two sections:

Section 39O. "Every contract subject to the provisions of section thirty-nine M of this chapter or subject to section forty-four A of chapter one hundred forty-nine shall contain the following provisions (a) and (b) in their entirety...

"(a) The awarding authority may order the general contractor in writing to suspend, delay, or interrupt all or any part of the work for such period of time as it may determine to be appropriate for the convenience of the awarding authority; provided however, that if there is a suspension, delay or interruption for fifteen days or more due to a failure of the awarding authority shall make an adjustment in the contract but shall not include any profit to the general contractor on such increase; and provide further, that the awarding authority shall not make any adjustment in the contract price under this provision for any suspension, delay, interruption or failure to act to the extent that such is due to any cause for which this contract provides for an equitable adjustment of the contract price under any other contract provisions.

(b) The general contractor must submit the amount of a claim under provision (a) to the awarding authority in writing as soon as practicable after the end of the suspension, delay, interruption or failure to act and, in any event, not later than the date of final payment under this contract and, except for costs due to a suspension order, the awarding authority shall not approve any costs in the claim incurred more than 20 days before the general contractor notified the awarding authority of the act or failure to act involved in the claim."

Section 39P. "Every contract subject to section thirty-nine M of this chapter or section forty-four A of chapter one hundred forty-nine which requires the awarding authority, any official, its architect or engineer to make a decision on interpretation of the specifications, approval of equipment, material or any other approval, or progress of the work, shall require that the decision be made promptly and, in any event no later than thirty days after the written submission for decision; but if such decision required extended investigation and study, the awarding authority, the official, architect or engineer shall, within thirty days after the receipt of the submission, give the party making the submission written notice of the reasons why the decision cannot be made within the thirty day period and the date by which the decision will be made."

Attention is also directed to Chapter 30, Section 39R of the General Laws of Massachusetts as amended to date as follows:

Section 39R. (a) The words defined herein shall have the meaning stated below whenever they appear in this section:

(1) "Contractor" means any person, corporation, partnership, joint venture, sole proprietorship, or other entity awarded a contract pursuant to section thirty-nine M of chapter thirty, sections forty-four A through forty-four H, inclusive, of chapter one hundred forty-nine and sections thirty B through thirty P, inclusive, of chapter seven.

(2) "Contract" means any contract awarded or executed pursuant to sections thirty B through thirty P, inclusive, of chapter seven and any contract awarded or executed pursuant to section thirty-nine M of chapter thirty, or sections forty-four A through forty-four H, inclusive, of chapter one hundred forty-nine, which is for an amount or estimated amount greater than one hundred thousand dollars.

(3) "Records" means books of original entry, accounts, checks, bank statements and all other banking documents, correspondence, memorandum invoices, computer printouts, tapes, discs, papers and other documents transcribed information of any type, whether expressed in ordinary or machine language.

(4) "Independent Certified Public Accountant" means a person duly registered in good standing and entitled to practice as a certified public accountant under the laws of the place of his/her residence or principal office and who is in fact independent. In determining whether an accountant is independent with respect to a particular person, appropriate consideration should be given to all relationships between the accountant and that person or any affiliate thereof. Determination of an accountant's independence shall not be confined to the relationships existing in connection with the filing of reports with the awarding authority.

(5) "Audit", when used in regard to financial statements, means an examination of records by an independent certified public accountant in accordance with generally accepted accounting principles and auditing standards for the purpose of expressing a certified opinion thereon, or, in the alternative, a qualified opinion or a delineation to express an opinion for stated reasons.

(6) "Accountant's Report", when used in regard to financial statements, means a document in which an independent certified public accountant indicates the scope of the audit which she/he has made and sets forth his/her opinion regarding the financial statements taken as a whole with a listing of noted exceptions and qualifications, or an assertion to the effect that an overall opinion cannot be expressed. When an overall opinion cannot be expressed the reason therefor shall be stated. An accountant's report shall include as a part thereof a signed statement by the responsible corporate officer attesting that management has fully disclosed all material facts to the independent certified public accountant, and that the audited financial statement is a true and complete statement of a financial condition of the contractor.

(7) "Management", when used herein, means the chief executive officers, partners, principals or other person or persons primarily responsible for the financial and operational policies and practices of the contractor.

(8) Accounting terms, unless otherwise defined herein, shall have a meaning in accordance with generally accepted accounting principles and auditing standards.

(b) Subsection (a) (2) hereof notwithstanding, every agreement or contract awarded or executed pursuant to sections 30B through 30P, inclusive, of chapter seven, and pursuant to section 39M of chapter 30 or to section 44A through 44H, inclusive, of chapter 149, shall provide that:

(1) The contractor shall make, and keep for at least six years after final payment, books, records, and accounts which in reasonable detail accurately and fairly reflect the transactions and dispositions of the contractor, and

(2) until the expiration of six years after final payment, the awarding authority, office of inspector general, and the deputy commissioner of capital planning and operations shall have the right to examine any books, documents, papers or records of the contractor or of his/her subcontractors that directly pertain to, and involve transactions relating to, the contractor or his/her subcontractors, and

(3) if the agreement is a contract as defined herein, the contractor shall describe any change in the method of maintaining records or recording transactions which materially affect any statements filed with the awarding authority, including in his/her description the date of the change and reasons therefore, and shall accompany said description with a letter from the contractor's independent certified public accountant approving or otherwise commenting on the changes, and

(4) if the agreement is a contract as defined herein, the contractor has filed a statement of management on internal accounting controls as set forth in paragraph (c) below prior to the execution of the contract, and

(5) if the agreement is a contract as defined herein, the contractor has filed prior to the execution of the contracts and will continue to file annually, an audited financial statement for the most recent completed fiscal year as set forth in paragraph (d) below.

(c) Every contractor awarded a contract shall file with the awarding authority a statement of management as to whether the system of internal accounting controls of the contractor and its subsidiaries reasonably assures that:

(1) transactions are executed in accordance with management's general and specific authorization;

(2) transactions are recorded as necessary

i. to permit preparation of financial statements in conformity with generally accepted accounting principles, and

ii. To maintain accountability for assets;

(3) access to assets is permitted only in accordance with management's general or specific authorization; and

(4) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action was taken with respect to any difference.

Every contractor awarded a contract shall also file with the awarding authority a statement prepared and signed by an independent certified public accountant, stating that she/he has examined the statement of management on internal accounting controls, and expressing an opinion as to

(1) whether the representations of management in response to this paragraph and paragraph (b) above are consistent with the result of management's evaluation of the system of internal accounting controls; and

(2) whether such representations of management are, in addition, reasonable with respect to transactions and assets in amounts which would be material when measured in relation to the applicant's financial statements.

(d) Every contractor awarded a contract by the commonwealth or by any political subdivision thereof shall annually file with the awarding authority during the term of the contract a financial statement prepared by an independent certified public accountant on the basis of an audit by sub accountant. The final statement filed shall include the date of final payment. All statements shall be accompanied by an accountant's report. Such statements shall be made available to the awarding authority upon request.

(e) The office of inspector general, the deputy commissioner for capital planning and operations and any other awarding authority shall enforce the provisions of this section. The deputy commissioner of capital planning and operations may after providing an opportunity for the inspector general and other interested parties to comment, promulgate pursuant to the provisions of chapter thirty A such rules, regulations and guidelines as are necessary to effectuate the purposes of this section. Such rules, regulations and guidelines may be applicable to all awarding authorities. A contractor's failure to satisfy any of the requirements of this section may be grounds for debarment pursuant to section forty-four C of Chapter one hundred forty-nine.

(f) Records and statements required to be made, kept or filed under the provisions of this section shall not be public records as defined in section seven of chapter four and shall not be open to public inspection; provided, however, that such records and statements shall be made available pursuant to the provisions of clause (2) of paragraph (b).

1.03 MINIMUM WAGE RATES

A. Minimum Wage Rates as determined by the Commissioner of Department of Labor and Industries under the provision of the Massachusetts General Laws, Chapter 149, Sections 26 to 27D, as amended, apply to this project. It is the responsibility of the contractor, before bid opening, to request if necessary, any additional information of Minimum Wage Rates for those trades-people who may be employed for the proposed work under this contract. Minimum wage rates are included at the end of this section.

1.04 SAFETY AND HEALTH

A. This project is subject to the Safety and Health regulation of the U.S. Department of Labor set forth in 29 CFR Part 1926, Commonwealth of Massachusetts Regulations CMR 454, and to the Massachusetts (Department of Labor and Industries,) Division of (Industrial) Occupational Safety "Construction Industry Rules and Regulations for the Prevention of Accidents in

Construction operations (Chapter 454 CMR 10.00 et. seq.)". Contractors shall be familiar with the requirements of these regulations.

END OF SECTION

SECTION 01069

HEALTH & SAFETY REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Requirements for providing a Health and Safety Plan (HASP) and maintenance of health and safety, while performing the Work.

1.02 REQUIREMENTS

- A. Monitor working conditions at all times during construction and provide appropriate protective clothing, equipment and facilities for personnel, and establish workplace procedures to ensure personnel safety.
- B. If required, implement Health and Safety protection program. The procedures for such implementation shall be submitted to the Engineer and Owner for approval. The procedures shall include provisions for stations allowing workers to wash and to put on and remove protective clothing, and stations for vehicles to be cleaned, if necessary, before leaving the site, air monitoring, and evaluation of areas where unsafe levels of gas has accumulated.
- C. Comply with all Federal, State, and local safety requirements related to the hazards anticipated to be encountered during the course of this project.
- D. In addition to the above requirements, comply with the following:
 - 1. All construction equipment on the site shall be equipped with vertical exhaust pipes or a spark proof exhaust.
 - 2. Smoking shall not be permitted in any area where gases can accumulate, or in areas where contaminated soil is present.
 - 3. Welding or open flames shall not be permitted in enclosed areas.
 - 4. Toxic gas indicators, an organic vapor analyzer, a combustible gas indicator, an oxygen indicator, and fire extinguishers shall be available at all times during operations. Periodic monitoring with portable monitoring devices shall be employed as dictated by the Health and Safety Plan.
 - 5. During operations, whenever unsafe levels of toxic gases are detected, all work will cease in that area until acceptable levels are reached.

1.03 SHOP DRAWINGS

- A. Submit site specific Health and Safety Plan (HASP) that complies with all applicable OSHA requirements to the Engineer for review and acceptance within fifteen (15) working days of the Contractor's Notice to Proceed. Certified Industrial Hygienist must certify the Contractor's plan prior to submittal to and review by the Engineer. The Contractor is not to proceed with any subsurface or site work without review and acceptance of the submitted Health and Safety Plan by the Engineer.

1.04 QUALITY ASSURANCE

- A. Engage an independent, qualified Health and Safety expert having experience in similar construction conditions, to monitor site conditions and recommend all necessary Health and Safety protection. This person shall be a Certified Industrial Hygienist (CIH). The Contractor

shall follow such recommendations and shall provide such protection to his personnel, and personnel of the Owner and Engineer, as may be affected.

1.05 REGULATORY REQUIREMENTS

- A. Establish work place procedures, enforce the use of these procedures, and the associated equipment and facilities in accordance with the following guidelines:
 - 1. Safety and Health Regulations Promulgated by the U.S. Department of Labor OSHA, 29 CFR 1910 - Occupational Safety and Health Standards, and 29 CFR 1920 - Safety and Health Regulations for Construction.
 - 2. Occupational Safety and Health Standards, 29 CFR 1926 - Safety and Health Regulations for Construction.
 - 3. U.S. Environmental Protection Agency Medical Monitoring Program Guidelines.

1.06 SITE CONDITIONS

- A. Contractor is also responsible for reviewing site specific investigation reports included in the various Appendices of the Contract Documents.

PART 2 PRODUCTS

NOT USED

PART 3 EXECUTION

3.01 PROTECTION

- A. If, at any time, the Owner or the Engineer is apprised of a safety hazard which demands immediate attention because of its high potential for harm to the public travel, persons on or about the Work, or public or private property, the Owner or the Engineer shall have the right to order such safeguards to be erected and such precautions to be taken as necessary and the Contractor shall comply with such orders. If, under such circumstances, the Contractor does not or cannot immediately put the Work into proper and approved condition, or if the Contractor or his representative is not upon the site so that he can be notified immediately of the insufficiency of safety precautions, then the Owner may put the Work into such a condition that is, in his opinion, in all respects safe, and the Contractor shall pay all expenses of such labor and materials as may have been used for this purpose by him or by the Owner. The fact that the Owner or the Engineer does not observe a safety hazard or does not order the Contractor to take remedial measures shall in no way relieve the Contractor of the entire responsibility for any costs, loss or damage by any party sustained on account of the insufficiency of the safety precautions taken by him or by the Owner acting under authority of this Section.
- B. If the Contractor is alerted to the fact that conditions of high hazard are present or can be present at the site during the performance of the Work, it is the responsibility of the Contractor to take appropriate safety precautions to meet whatever conditions of hazard may be present during the performance of the Work, whether reasonably foreseeable or not. The safety conditions enumerated in the Specifications are the minimum permissible and neither the Owner nor the Engineer makes any representation that the safety standards provided herein will be adequate to meet all eventualities. The Contractor is therefore alerted to the fact that it shall be his responsibility to anticipate and provide such additional safety precautions, facilities, personnel and equipment as shall be necessary to protect life and property from whatsoever conditions of hazard are present or may be present.

- C. Contractor shall supply and erect highly visible safety fencing a minimum of three feet in height around all construction areas that pose a threat to safety and post proper signage as required by Local, State and Federal requirements. The Contractor shall erect safety fencing as documented in the Contact Drawings or as directed by the Engineer and shall maintain such fencing and signage until such a time that the potential safety hazard has been rectified. Upon final completion of construction all safety fencing shall be removed off-site by the Contractor. Safety fencing requirements of OSHA shall be enforced by the Contractor.

END OF SECTION

SECTION 01170

ENVIRONMENTAL PROTECTION

PART 1 GENERAL

1.01 SUMMARY

A. Section Includes

1. Requirements for environmental protection during and as the result of construction operations under this Contract except for those measures set forth in other provisions of these Specifications.
2. Environmental protection requires consideration of air, water and land, noise, solid waste management, vector and fire control.

1.02 QUALITY ASSURANCE

A. Requirements of regulatory agencies:

1. In order to prevent environmental pollution and to provide for environmental protection arising from construction activities related to the performance of this Contract, the Contractor shall comply with all applicable Federal, State, and local laws and regulations concerning environmental protection, as well as the specific requirements stated in the Section and elsewhere in the Specifications.
2. Refer to the Environmental Permitting heading in the Special Provisions – Summary of Work and Specific Requirements of the Contract Documents.

1.03 SUBMITTALS

A. Under the requirements of Section 01300 - Submit the following.

B. Implementation Plan

1. Prior to commencement of the work, the Contractor shall:
 - a. Submit in writing his plans for implementing this Section for environmental protection.
 - b. Meet with the Engineer to develop mutual understandings relative to compliance with the provisions of this Section and administration of the environmental protection program.

C. Temporary Excavation and Embankments

1. If the Contractor proposes to construct temporary roads or embankments and excavations for work areas, he shall submit the following for approval prior to scheduled start of such temporary work:
 - a. A layout of all temporary roads, excavations and embankments to be constructed within the work area.
 - b. Plans and cross-sections of proposed embankments and their foundations, including a description of proposed materials.
 - c. A landscaping plan showing the proposed restoration of the area. Removal of any necessary trees and shrubs outside the limits of existing cleared areas shall be indicated. The plan shall provide for the obliteration of construction scars

and shall provide for a reasonably natural appearing final condition of the area. Modification of the Contractor's plans shall be made only with the written approval of the Engineer. No unauthorized road construction, excavation or embankment construction, including disposal areas will be permitted.

D. Erosion Sedimentation Plan

1. The Contractor shall submit to the Engineer, a detailed erosion and sedimentation plan for approval at least 10 days prior to initiation of work. The plan shall include location and construction details of the Contractor's proposed dikes, basins, etc. The Contractor shall provide and submit his control measures for stockpile material.

PART 2 PRODUCTS

2.01 GENERAL

- A. All materials shall be as specified elsewhere in this Specification.

PART 3 EXECUTION

3.01 PROTECTION OF LAND RESOURCES

- A. It is intended that the land resources within the project boundaries and outside the limits of permanent work performed under this Contract be preserved in their present condition, or be restored to a condition after completion of construction, that will appear to be natural and not detract from the appearance of the project. The Contractor shall confine his construction activities to areas defined on the Drawings or in the Specifications except with written approval of the property owners and the Engineer.
- B. Limits of working areas include areas for storage of construction material, and shall be cleared in a manner which will enable satisfactory restoration and which will not affect the environment during or after the construction period. The Contractor shall not enter beyond the working limits of the working area except with written approval of the Engineer and Owner.
- C. Location of areas for storage of the Contractor's materials required temporarily in the performance of the work, shall be within the limits of the working area and shall require written approval of the Engineer prior to use. The preservation of the landscape shall be an imperative consideration.
- D. The Contractor shall obliterate all signs of temporary construction facilities such as haul roads, work areas, structures, foundations of temporary structures, stockpiles of excess or waste materials, or any other vestiges of construction. It is anticipated that excavation, filling and plowing of roadways will be required to restore the area to near natural conditions which permit the growth of vegetation thereon. The disturbed areas shall be graded and filled as required, and topsoil shall be spread to a depth of approximately 6 inches over the entire area and the entire area shall be seeded.

3.02 PROTECTION OF WATER RESOURCES

- A. Contractor shall not pollute streams, lakes or reservoirs with fuels, oils, bitumen's, calcium chloride, acids or harmful materials. It is the responsibility of the Contractor to investigate and comply with all applicable Federal, State, County, and Municipal laws concerning pollution of rivers, streams and impounded water. All work under this Contract shall be performed in such

a manner that objectionable conditions will not be created in streams through, or bodies of water adjacent to, the project area.

- B. Surface drainage from cuts and fills within the construction limits, whether or not completed, and from borrow and waste disposal areas, shall, if turbidity producing materials are present, be held in suitable sedimentation basins or shall be graded to control erosion within acceptable limits. Temporary erosion and sediment control measures such as berms, dikes, drains, or sedimentation basins, if required to meet the above standards, shall be provided and maintained until permanent drainage and erosion control facilities are completed and operative. The area of bare soil exposed at any one time by construction operations should be held to a minimum.
- C. Apply temporary mulch on denuded ground immediately after rough grading is completed. This shall apply to all areas not subject to appreciable traffic during construction, even those that are to receive some form of construction later if ground is to be exposed 30 days or more.
- D. Stream and drainage ditch crossings by fording with equipment shall be limited to control turbidity, and in areas of frequent crossings, temporary culverts or bridge structures shall be installed. Any temporary culverts or bridge structures shall be removed upon completion of the project. Fills and waste areas shall be constructed by selective placement to eliminate silts or clays on the surface that will erode and contaminate adjacent streams.
- E. Special measures shall be taken to prevent chemicals, fuels, oils, greases, bituminous materials, waste washings, herbicides and insecticides, and cement and surface drainage from entering public waters.
- F. Disposal of any materials, wastes, effluents, trash, garbage, oil, grease, chemicals, etc., in areas adjacent to streams or other waterways shall be disposed of by the Contractor in accordance with the applicable governing regulations. If any waste material is dumped in unauthorized area, the Contractor shall remove the material and restore the area to the condition of the adjacent undisturbed area. If necessary, contaminated ground shall be excavated, disposed of as specified hereinbefore, and replaced with suitable fill material, compacted and finished with topsoil, all at the expense of the Contractor.

3.03 MAINTENANCE

- A. The Contractor shall dispose of all discarded debris and aggregate samples in a manner approved by the Engineer. Toilet facilities shall be kept clean and sanitary at all times. Services shall be performed at such a time and in such a manner to least interfere with the operations. Services shall be accomplished to the satisfaction of the Engineer.
- B. The Contractor shall frequently remove materials no longer required on the site so that, at all times, the site, access routes to the site and any other areas disturbed by his operations shall present a neat, orderly, workmanlike appearance.
- C. Before semi-final payment, the Contractor shall remove all surplus material, plant of any description, and debris of every nature resulting from his operations, and put the site in a neat, orderly condition; and restore all areas which have been used for storage of materials and equipment, and all areas which have been disturbed by his operations, to their original condition or to a condition satisfactory to and approved by the Engineer.

3.04 DUST CONTROL

- A. Contractor shall maintain all excavations, embankments, stockpiles, and all other work areas within or without the project boundaries free from dust which would cause a hazard or nuisance to others or contaminate surface water.

3.05 NOISE CONTROL

- A. Contractor shall use every effort and means possible to minimize or eliminate noise caused by his operation which the Engineer may consider objectionable.

3.06 LITTER CONTROL

- A. Any litter generated by the Contractor's operation, whether from disturbance of existing buried solid waste or generated in the course of performing the work under Contract, shall be collected and properly disposed of on a daily basis.

3.07 PROHIBITED CONSTRUCTION PROCEDURES

- A. Contractor is advised that the disposal of excess excavated material in wetlands, stream corridors, and floodplains is strictly prohibited. Any violation of this restriction by the Contractor or any person employed by him, will be brought to the immediate attention of the responsible regulatory agencies.
- B. Contractor shall comply with the following requirements regarding prohibited construction procedures as follows:
 - 1. Dumping of spoil material into any stream corridor, any wetland, any surface waters, or at unspecified locations.
 - 2. Indiscriminate, arbitrary or capricious operation of equipment in any stream corridors, any wetlands or surface waters.
 - 3. Pumping of silt-laden water from trenches or other excavations into any surface waters, any stream corridors or any wetlands.
 - 4. Damaging vegetation adjacent to, or outside of, the area of the work.
 - 5. Disposal of trees, brush and other debris in any stream corridors, any wetlands, any surface waters, or at unspecified locations.
 - 6. Permanent or unspecified alteration of the flow line of any stream.
 - 7. Open burning of project debris.
 - 8. Location of storage stockpile areas in environmentally sensitive areas.
 - 9. Disposal of excess or unsuitable excavation material in wetlands or floodplains, even with permission of the property owner.

END OF SECTION

SECTION 01200

PROJECT MEETINGS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Administrative and procedural requirements for project meetings.

1.02 PRECONSTRUCTION CONFERENCE

- A. Engineer will schedule and administer a pre-construction conference.
- B. Pre-construction conference will be scheduled and administered within fourteen (14) calendar days after the dated "Notice to Proceed". The Contractor shall be prepared to address such topics as projected construction schedules, major personnel, critical work areas, construction facilities and shop drawing submittals.

1.03 Progress meetings

- A. Engineer will schedule and administer progress meetings and specially called meetings throughout the duration of the Work at minimum monthly intervals.
- B. Time and location of such meetings shall be designated by the Engineer and shall be convenient for all parties involved.
- C. Engineer will, prepare agenda with copies for participants, preside at meetings, record minutes, and distribute copies to participants.

PART 2 PRODUCTS

NOT USED

PART 3 EXECUTION

NOT USED

END OF SECTION

SECTION 01300

SUBMITTALS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Requirements for submission of schedules and shop drawings.

1.02 PROGRESS SCHEDULE

- A. Within fourteen (14) calendar days after execution of the Contract Documents, the Contractor shall submit to the Engineer for review a construction progress schedule conforming to requirements specified. This schedule should show the proposed dates of commencement and completion of each of the various subdivisions of work required under this Contract and the anticipated monthly percentage of completion based on the total contract price. The Contractor shall be responsible for updating and/or revising this schedule whenever directed by the Engineer throughout the duration of the Contract.
- B. Special attention is directed to the requirement that the Contractor shall start the Work, as specified under this Contract, no later than thirty (30) calendar days after the execution of the Contract Documents, unless otherwise directed by the Owner. The Contractor shall comply with all pre-construction requirements as specified. The Owner reserves the right to delay the commencement of the Work or any part thereof if the specified requirements as determined by the Engineer have not been satisfied. The Owner further reserves the right to limit or, delay construction, or certain activities thereof, in certain areas of the Contract should the Owner deem it to be in the public's best interest and/or safety to do so.
- C. Contractor shall contact the appropriate town or city authorities concerning any public or semi-public events that may occur during the construction period that may affect construction. The Contractor alone shall be responsible for arranging his construction sequence to conform to any restrictions these events may impose. No claims for extras will be allowed because of any delay, extra materials handling, extra excavation, etc. caused by the imposed restrictions. However, additional time may be granted for completion of the work to compensate for delays caused by said restrictions.

1.03 ELECTRONIC SUBMITTAL PROCEDURES

A. Summary:

1. Shop drawing and product data submittals shall be transmitted to Engineer in electronic (PDF) format via email.
2. The intent of electronic submittals is to expedite the construction process by reducing paperwork, improving information flow, and decreasing turnaround time.
3. The electronic submittal process is not intended for color samples, color charts, or physical material samples.

B. Procedures:

1. Create submittal log by inserting required submittals listed in individual specification sections.
2. Submittal Preparation - Contractor may use any or all of the following options:
 - a. Subcontractors and Suppliers provide electronic (PDF) submittals to Contractor via email.
 - b. Subcontractors and Suppliers provide paper submittals to Scanning Service which electronically scans and converts to PDF format.
3. Contractor shall review and apply electronic stamp certifying that the submittal complies with the requirements of the Contract Documents including verification of manufacturer / product, dimensions and coordination of information with other parts of the work.
4. Contractor shall transmit each submittal to Engineer via email.
5. Engineer review comments will be made available via email to the Contractor.
6. Distribution of reviewed submittals to subcontractors and suppliers is the responsibility of the Contractor.

1.04 SHOP DRAWINGS

- A. Once approved through the Electronic Submittal Procedure, Contractor to submit one (1) full-sized copy of all approved shop and working drawings of concrete reinforcement, structural details, piping layout, wiring, materials fabricated especially for the Contract, and materials and equipment for which such drawings are specifically requested.
- B. A maximum of two (2) submittals of each shop drawing will be reviewed by the Engineer. If more submittals are required due to the Contractor's neglect or failure to fulfill the requirements of the Contract plans and specifications, or to make corrections or modifications required by the Engineer in the review of the first two submittals, the Engineer will review the submittal and the Contractor will be responsible for the cost of the review, as determined by the Owner based on the Engineer's documentation of time and rates for additional services established in the Engineering Agreement between the Owner and the Engineer.
- C. Such drawings shall show the principal dimensions, weight, structural and operating features, space required, clearances, type and/or brand of finish or shop coat, grease fittings, etc., depending on the subject of the drawing. When the dimensions are of particular importance, or when specified, the drawings shall be certified by the manufacturer or fabricator as correct for the Contract.
- D. When so specified or if considered by the Engineer to be acceptable, manufacturer's specifications, catalog data, descriptive matter, illustrations, etc., may be submitted in place of shop and working drawings.
- E. Contractor shall be responsible for the prompt and timely submittal of all shop and working drawings to eliminate delay to the Work due to the absence of such drawings. All shop and working drawings must be submitted to the Engineer within thirty (30) calendar days prior to incorporation into the Work, unless otherwise permitted by the Engineer. **Prior to the submittal of any shop drawings, the Contractor shall submit a schedule of proposed shop**

drawing transmittals. The schedule shall identify the subject matter of each transmittal, the corresponding specification section number and the proposed date of submission. Prior to and during the progress of the Work the schedule shall be revised and resubmitted as requested by the Engineer.

- F. No material or equipment shall be purchased or fabricated for the Contract until the required shop and working drawings have been submitted as hereinabove provided and reviewed for conformance to the Contract requirements. All such materials and equipment and the work involved in their installation or incorporation into the Work shall then be as shown in and represented by said drawings.
- G. Until the necessary review has been made, the Contractor shall not proceed with any portion of the Work (such as the construction of foundations) for which review is required.
- H. All shop and working drawings shall be submitted to the Engineer by and/or through the Contractor, who shall be responsible for obtaining shop and working drawings from his subcontractors and returning reviewed drawings to them. All shop and working drawings shall be prepared on standard size, 24 inch by 36 inch sheets, except those which are made by changing existing standard shop and working drawings. All drawings shall be clearly marked with the names of the Owner, Contractor, and building, equipment, or structure to which the drawing applies, and shall be suitable numbered. Submitted shop drawings shall be accompanied by a letter of transmittal, completed by the Contractor provided by the Engineer.
- I. Only drawings which have been checked and corrected by the fabricator should be submitted to the Contractor by his subcontractors and vendors. Prior to submitting drawings to the Engineer, the Contractor shall check thoroughly all such drawings to satisfy himself that the subject matter thereof conforms to the Drawings and Specifications in all respects. All drawings which are correct shall be marked with the date, checker's name, and indication of the Contractor's approval, and then shall be submitted to the Engineer; other drawings shall be returned for correction.
- J. If a shop drawing shows any deviation from the Contract requirements, the Contractor shall make specific mention of the deviations in his letter of transmittal.
- K. The review of shop and working drawings by the Engineer will be general only, and nothing contained in this Section shall relieve, diminish or alter in any respect the responsibilities of the Contractor under the Contract Documents and in particular, the specific responsibility of the Contractor for details of design and dimensions necessary for proper fitting and construction of the work as required by the Contract and for achieving the result and performance as specified. The Contractor shall be responsible for errors and omissions in shop drawings.
- L. Should the Contractor submit equipment that requires modifications to the structures, piping, electrical conduit, wires, appurtenances, or layouts etc., either existing or as detailed on the Drawings, he shall also submit details of the proposed modifications. If such equipment and modifications are accepted, the Contractor, at no additional cost to the Owner, shall do the work necessary to make such modifications.
- M. The Contractor shall furnish additional copies of shop drawings or catalog cuts when so requested.

PART 2 EXECUTION

2.01 SUBMITTAL SCHEDULE

- A. Provide an initial submittal schedule at the pre-construction meeting for review by Owner and Engineer. Incorporate comments from Owner and Engineer into a revised submittal schedule.
- B. Maintain the submittal schedule and provide sufficient copies for review by Owner and Engineer. An up-to-date submittal schedule shall be provided at each project progress meeting.

2.02 PROCEDURES

A. ACTION SUBMITTALS

1. CONTRACTOR'S RESPONSIBILITIES

- a. Coordination of Submittal Times: Prepare and transmit each submittal sufficiently in advance of performing the related work or other applicable activities, or within the time specified in the individual work of other related Sections, so that the installation will not be delayed by processing times including disapproval and resubmittal (if required). Coordinate with other submittals, testing, purchasing, fabrication, delivery and similar sequenced activities. Extensions to the Contract Time will not be approved for the Contractor's failure to transmit submittals sufficiently in advance of the Work.
- b. The submittals of all shop drawings (including working drawings and product data) shall be sufficiently in advance of construction requirement to allow for possible need of re-submittals, including the specified review time for the Engineer.
- c. No less than 30 calendar days will be required for Engineer's review time for shop drawings and O&M manuals involving only one engineering discipline. No less than 45 calendar days will be required for Engineer's review time for shop drawings and O&M manuals that require review by more than one engineering discipline. Resubmittals will be subject to the same review time.
- d. Submittals of operation and maintenance data shall be provided within 30 days of approval of the related shop drawing(s).
- e. Before submission to the Engineer, review shop drawings as follows:
 - 1) Make corrections and add field measurements, as required
 - 2) Use any color for its notations except red (reserved for the Engineer's notations) and black (to be able to distinguish notations on black and white documents)
 - 3) Identify and describe each deviation or variation from Contract Documents
 - 4) Include the required Contractor's Certification statement
 - 5) Provide field measurements (as needed)
 - 6) Coordinate with other submittals

- 7) Indicate relationships to other features of the Work
- 8) Highlight information applicable to the Work and/or delete information not application to the Work
- f. If Contractor considers any correction indicated on the shop drawings to constitute a change to the Contract Documents, provide written notice thereof to the Engineer immediately; and do not release for manufacture before such notice has been received by the Engineer.
- g. When the shop drawings have been completed to the satisfaction of the Engineer, carry out the construction in accordance therewith; and make no further changes therein except upon written instruction from the Engineer.

2. ENGINEER'S RESPONSIBILITIES

- a. Engineer will not review shop drawings (including working drawings and product data) that do not include the Contractor's approval stamp. Such submittals will be returned to the Contractor, without action, for correction.
- b. Partial shop drawings (including working drawings and product data) will not be reviewed. If, in the opinion of the Engineer, a submittal is incomplete, that submittal will be returned to the Contractor for completion. Such submittals may be returned with comments from Engineer indicating the deficiencies requiring correction.
- c. If shop drawings (including working drawings and product data) meet the submittal requirements, Engineer will forward copies to appropriate reviewer(s). Otherwise, noncompliant submittals will be returned to the Contractor without action – with the Engineer retaining one copy.
- d. Submittals which are transmitted in accordance with the specified requirements will be reviewed by the Engineer within the time specified herein. The time for review will commence upon receipt of submittal by Engineer.

3. REVIEW OF SHOP DRAWINGS (INCLUDING WORKING DRAWINGS AND PRODUCT DATA) AND SAMPLES

- a. The review of shop drawings, working drawings, data and samples will be for general conformance with the design concept and Contract Documents. They shall not be construed:
 - 1) As permitting any departure from the Contract requirements
 - 2) As relieving the Contractor of responsibility for any errors, including details, dimensions, and materials
 - 3) As approving departures from details furnished by the Engineer, except as otherwise provided herein

- b. The Contractor remains responsible for details and accuracy, for coordinating the work with all other associated work and trades, for selecting fabrication processes, for techniques of assembly, and for performing work in a safe manner.
- c. If the shop drawings (including working drawings and product data) or samples as submitted describe variations and indicate a deviation from the Contract requirements that, in the opinion of the Engineer are in the interest of the Owner and are so minor as not to involve a change in Contract Price or Contract Time, the Engineer may return the reviewed drawings without noting an exception.
- d. Only the Engineer will utilize the color “RED” in marking submittals.
- e. Shop drawings will be returned to the Contractor with one of the following codes:
 - 1) “Approved”
 - 2) “Approved as Noted” - Minor changes are required, but resubmission is not required.
 - 3) “Revise and Resubmit” - Changes and resubmission are required
 - 4) “Rejected” – The submittal does not meet the intent of the Contract Documents. The Contractor must resubmit the entire package revised to bring the submittal into conformance.
 - 5) “Record File Only” – No action is to be taken (Engineer files submittal)

END OF SECTION

SECTION 01400
QUALITY CONTROL

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Requirements for Contractor's quality control of products, suppliers, manufacturers, services, site conditions, and workmanship, to produce Work of specified quality.

1.02 QUALITY ASSURANCE/CONTROL OF INSTALLATION

- A. Comply fully with manufacturers' instructions, including each step in sequence.
- B. Should manufacturers' instructions conflict with Contract Documents, request clarification from Engineer before proceeding.
- C. Comply with specified standards as a minimum quality for the Work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- D. Perform work by persons qualified to produce workmanship of specified quality.
- E. Secure Products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion or disfigurement.

1.03 FIELD SAMPLES

- A. Install field samples at the site as required by individual specifications sections for review.
- B. Acceptable samples represent a quality level for the Work.
- C. Where field sample is specified to be removed, clear area only after field sample has been accepted by the Engineer.

1.04 CERTIFIED WELDERS

- A. Structural welds shall be made only by operators who have been qualified by tests, as prescribed in the "Standard Qualification Procedure" of the American Welders Society, to perform the type of work required.
- B. Pipe welds shall be made only by operators who have been qualified by the National Certified Pipe Welding Bureau and each operator's qualification record shall be submitted to the Engineer before any work is performed.
- C. Shop welding shall be in accordance with the "Code for Welding in Building Construction".

PART 2 PRODUCTS

NOT USED

PART 3 EXECUTION

NOT USED

END OF SECTION

SECTION 01410

LABORATORY TESTING

PART 1 GENERAL

1.01 SUMMARY

A. Section Includes

1. Qualification, duties and responsibilities of testing laboratories.
2. Coordination and scheduling responsibilities of the Contractor.

B. Related Sections

1. Section 01600 - Materials and Equipment

1.02 PAYMENT PROCEDURES

A. Initial Testing

1. Unless otherwise specified herein, the Contractor will pay for testing services required by the Engineer.

B. Retesting

1. When initial tests indicate noncompliance with the Contract Documents, subsequent retesting occasioned by the noncompliance shall be performed by the same testing agency, at no additional cost.

C. Contractors Convenience Testing

1. Inspecting and testing performed exclusively for the Contractor's convenience or a required by him by the technical specifications shall be the sole responsibility of the Contractor.

1.03 REFERENCES

A. American Society for Testing and Materials (ASTM)

1. E329, Standard Specification for Agencies Engaged in Construction Inspection, Testing, or Special Inspection

1.04 REQUIREMENTS

A. Work included:

1. Cooperate with the selected testing agency and all others responsible for testing and inspecting the Work.
2. Provide other testing and inspecting as specified to be furnished by the Contractor in this Section and/or elsewhere in the Contract Documents.
3. Where no testing requirements are described, but the Owner directs testing, the Contractor shall provide testing under the requirements of this Specification.

B. Work not included:

1. Selection of testing laboratory: The Contractor will select a qualified independent testing laboratory, subject to approval by the Owner..

1.05 QUALITY ASSURANCE

A. Qualifications

1. The testing laboratory will be qualified to the Owner's approval in accordance with ASTM E329.

B. Regulatory requirements

1. Testing, when required, will be in accordance with all pertinent codes and regulations and with selected standards of the American Society for Testing and Materials.
2. Regulatory Requirements Inspections and tests required by codes or ordinances, or by a plan approved authority, and which are made by a legally constituted authority, shall be the responsibility of and shall be paid for by the Contractor, unless otherwise provided in the Contract Documents.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Comply with pertinent provisions of Section 01600 - Materials and Equipment.

B. Promptly process and distribute, to the Engineer, required copies of test reports and instructions to assure necessary retesting and replacement of materials with the least possible delay in progress of the Work.

1.07 SCHEDULING

A. Establishing schedule

1. By advance discussion with the testing laboratory, determine the time required for the laboratory to perform its tests and to issue each of its findings.
2. Provide all required time within the construction schedule.
3. Coordinate testing activity with the appropriate testing laboratory.

B. Revising schedule

1. When changes of construction schedule are necessary during construction, coordinate all such changes with the testing laboratory as required.

C. Adherence to schedule

1. When the testing laboratory is ready to test according to the established schedule, but is prevented from testing or taking specimens due to incompleteness of the Work, all extra charges for testing attributable to the delay may be back-charged to the Contractor and shall not be borne by the Owner.

PART 2 PRODUCTS

NOT USED

PART 3 EXECUTION

3.01 FIELD QUALITY CONTROL

A. Site Tests

1. Representatives of the testing laboratory shall have access to the Work at all times and at all locations where the Work is in progress. Provide facilities for such access to enable the laboratory to perform its functions properly.

2. All specimens and samples for testing, unless otherwise provided in the Contract Documents, shall be taken by the testing personnel. All sampling equipment and personnel will be provided by the testing laboratory. All deliveries of specimens and samples to the testing laboratory will be performed by the testing laboratory.

END OF SECTION

SECTION 01510

TEMPORARY UTILITIES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Requirements for temporary utilities required during construction.

1.02 GENERAL REQUIREMENTS

- A. Contractor is responsible for payment of all costs associated with the installation and operation of all temporary utilities necessary for the completion of the work.

1.03 TEMPORARY WATER

- A. If needed, temporary pipe lines and connections from the permanent service lines, necessary for the use of the Contractor and his Subcontractors shall be installed, protected, and maintained at the expense of the Contractor.
- B. Contractor shall provide adequate supply of drinking water from an approved source of acceptable quality, satisfactorily cooled, for his employees and those of his Subcontractors.

1.04 TEMPORARY ELECTRICITY

- A. If needed, provide electrical energy required for temporary lighting and power.
- B. Contractor shall bare all costs necessary to provide a temporary, separately metered electric service for construction. Electrical work to be done in accordance with applicable codes.

1.05 TEMPORARY SANITARY FACILITIES

- A. Provide adequate sanitary facilities for the use of those employed on the Work. Sanitary facilities shall be made available when the first employees arrive on the site of the Work, be properly secluded from public observation, and be maintained during the progress of the Work in suitable numbers.
- B. Maintain sanitary facilities in an orderly and sanitary condition at all times and enforce their use. Rigorously prohibit the committing of nuisances on the site of the Work, on the lands of the Owner, or any adjacent property.

PART 2 PRODUCTS

NOT USED

PART 3 EXECUTION

NOT USED

END OF SECTION

SECTION 01560

TEMPORARY CONTROLS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Requirements for cleaning, maintenance of the site, barriers and fences required during construction.

1.02 CLEANING DURING CONSTRUCTION

- A. Contractor shall perform clean-up operations during construction as herein specified.
 - 1. Control accumulation of waste materials and rubbish; periodically dispose of off-site. Bear all costs, including fees resulting from disposal.
 - 2. Maintain project in accordance with all local, State and Federal Regulatory Requirements.
 - 3. Store volatile wastes in covered metal containers, and remove from premises.
 - 4. Prevent accumulation of wastes that create hazardous conditions.
- B. Conduct cleaning and disposal operations to comply with local ordinances and anti-pollution laws.
 - 1. Do not burn or bury rubbish and waste materials on site.
 - 2. Do not dispose or volatile wastes such as mineral spirits, oil, or paint thinner in storm or sanitary drains.
 - 3. Do not dispose of wastes into streams or waterways.
 - 4. Use only those materials which will not create hazards to health or property and which will not damage surfaces.
 - 5. Use only those cleaning materials and methods recommended by manufacturer of surface material to be cleaned.
 - 6. Execute cleaning to ensure that the buildings, the sites, and adjacent properties are maintained free from accumulations of waste materials and rubbish and windblown debris, resulting from construction operations.
 - 7. Provide on-site containers for collection of waste materials, debris, and rubbish.
 - 8. Remove waste materials, debris, and rubbish from the site periodically and dispose of at legal disposal areas off the construction site.
 - 9. Handle material in a controlled manner with as little handling as possible. Do not drop or throw materials from heights.
 - 10. Schedule cleaning operations so that dust and other contaminants resulting from cleaning process will not damage surrounding surfaces.
 - 11. During its progress, the work and the adjacent areas affected thereby shall be kept cleaned up and all rubbish, surplus materials, and unneeded construction equipment shall be removed and all damage repaired so that the public and property owners will be inconvenienced as little as possible.
 - 12. Where material or debris has washed or flowed into or been placed in existing watercourses, ditches, gutters, drains, pipes, structures, work done under this contract, or elsewhere during the course of the Contractor's operations, such material or debris shall be entirely removed and satisfactorily disposed of during the progress of the work, and the ditches, channels, drains, pipes, structures, and work, etc. shall, upon completion of the work, be left in a clean and neat condition.

1.03 DUST CONTROL

- A. Provide adequate means for the purpose of preventing dust caused by construction operations throughout the period of the construction contract.
- B. This provision does not supersede any specific requirements for methods of construction or applicable general conditions or performance obligations of the Contractor.

1.04 EROSION AND SEDIMENT CONTROL

- A. Plan and execute construction by methods to control surface drainage from cuts and fills, from borrow and waste disposal areas. Prevent erosion and sedimentation.
- B. Minimize amount of bare soil exposed at one time.
- C. Provide temporary measures such as berms, dikes, and drains, to prevent water flow.
- D. Construct fill and waste areas by selective placement to avoid erosive surface silts for clays.
- E. Periodically inspect earthwork to detect evidence of erosion and sedimentation; promptly apply corrective measures.
- F. Construct sediment control devices for discharge from dewatering trenches.
- G. Construct all sedimentation control devices shown on the plans.

1.05 NOISE CONTROL

- A. Develop and maintain a noise-abatement program and enforce strict discipline over all personnel to keep noise to a minimum.
- B. Execute construction work by methods and by use of equipment which will reduce excess noise.
 - 1. Equip air compressors with Silencers, and power equipment with mufflers.
 - 2. Manage vehicular traffic and scheduling to reduce noise.

1.06 POLLUTION CONTROL

- A. Special care shall be taken to prevent contamination or muddying up or interfering in any way with the stream flows, if any along the line of work. No waste matter of any kind will be allowed to discharge into the stream flows or impounded water of any pools or other bodies of water.

1.07 SURFACE WATER CONTROL

- A. Take all precautions to prevent damage to the work or equipment by high waters or by storms. Engineer with the approval of the Owner may prohibit the carrying out of any work at any time when in his judgment, high water or storm conditions are unfavorable or not suitable, or at any time, regardless of the weather, when proper precautions are not being taken to safeguard previously constructed work or work in progress.
- B. In case of damage caused by the failure of the Contractor to take adequate precautions, the Contractor shall repair or replace equipment damaged and shall make such repairs or rebuild such parts of the damaged work, as the Engineer may require, at no additional expense to the Owner.

1.08 BARRIERS AND ENCLOSURES

- A. Fences and Barricades

1. Provide and maintain temporary fences, barriers, lights, guardrails, and barricades as indicated in the Contract Documents, or as necessary to secure the Work and adjacent property, and protect persons and property.

B. Protection of Trees

1. The Contractor shall take care not to harm trees along the sides of roads or within the existing facility in which the construction work is to be done or trees on adjacent lands except as indicated on the drawings or with the written permission of the Owner and any other owner of the trees involved. Care shall be taken not to cut tree roots so as to harm the growth of trees to remain.
2. If, in the opinion of the Engineer, any trees damaged during construction can be repaired, the Contractor shall satisfactorily repair same at no further cost to the Owner.
3. If, in the opinion of the Engineer, any tree damaged during construction cannot be repaired and should be removed, the Contractor shall satisfactorily remove and replace, in kind, same at no further cost to the Owner.

PART 2 PRODUCTS

NOT USED

PART 3 EXECUTION

NOT USED

END OF SECTION

SECTION 01570

TRAFFIC REGULATIONS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Requirements for traffic control for the duration of the Contract.

1.02 REFERENCES

- A. Manual of Uniform Traffic Control Devices (MUTCD) Latest Edition, including all latest revisions.

1.03 PERFORMANCE REQUIREMENTS

- A. Contractor shall have the sole responsibility for the maintenance and protection of traffic.
- B. An authorized representative of the Contractor shall be available on a 24-hour basis for the duration of the Contract for the purpose of correcting construction related impediments or hazards.

1.04 SHOP DRAWINGS

- A. In accordance with SECTION 01300 – SUBMITTALS, submit a traffic plan delineating requirements of this section, the Contract Drawings, and the Town of Uxbridge requirements.
- B. Traffic control plans shall detail all typical work zones and detours.

1.05 SITE CONDITIONS

- A. Replace, at no cost to the Owner, pavement markings, legends and lane arrows removed or damaged by the construction operation.
- B. Restore temporary detours to original condition.
- C. Replace traffic signal loops damaged during construction within 72 hours.

PART 2 PRODUCTS

2.01 TRAFFIC CONTROL DEVICES

- A. In accordance with the MUTCD.

PART 3 EXECUTION

3.01 INSTALLATION OF TRAFFIC CONTROL DEVICES

- A. In accordance with the MUTCD.

3.02 PROTECTION OF TRAFFIC

- A. Barricade trenches and roadway excavations at the end of each work period with temporary precast concrete barriers, properly lighted and marked to guide traffic to designated travel lane, or other means acceptable to the Engineer and approved on the Traffic Plan.

- B. Maintain and protect traffic movements for the entire length of the project.
- C. Keep one lane of traffic open at all times except for brief stoppages dictated by the construction operation involving safety of vehicles in the travel lanes.
- D. Maintain access to business and private ways during construction operations.
- E. Furnish sufficient number of signs, temporary precast concrete barriers, warning lights, drums and traffic cones to warn traffic of construction and guide traffic through the construction area in accordance with the MUTCD.

3.03 TRAFFICMEN

- A. Provide service of uniformed trafficmen as required to complete construction as required by the Owner.

END OF SECTION

SECTION 01600

MATERIALS AND EQUIPMENT

PART 1 GENERAL

1.01 SUMMARY

A. Section Includes

1. Requirements for delivery, storage, handling and installation of systems, materials, manufactured units, equipment, components, and accessories used in the work.

B. Related Sections

1. Section 01300 - Submittals

1.02 DELIVERY

A. Refer to Specifications' Sections for requirements pertaining to delivery and handling of materials and equipment.

B. Transport products by methods to avoid product damage; deliver in undamaged condition in manufacturers' unopened containers or packaging, dry.

C. Provide equipment and personnel to handle products by methods to prevent soiling or damage.

D. Promptly inspect shipments to assure that products comply with requirements, that quantities are correct, and products are undamaged.

1.03 STORAGE AND PROTECTION

A. Refer to Specifications' Sections for requirements pertaining to storage and protection of materials and equipment.

B. Store products in accordance with manufacturers' instruction, with seals and labels intact and legible. Store sensitive products in weather tight enclosures; maintain within temperature and humidity ranges required by manufacturers' instructions.

C. For exterior storage of fabricated products, place on sloped supports above ground. Cover products subject to deterioration with impervious sheet covering; provide ventilation to avoid condensation.

D. Store loose granular materials on solid surfaces in a well-drained area; prevent mixing with foreign matter.

E. Arrange storage to provide access for inspection. Periodically inspect to assure that products are undamaged, and are maintained under required conditions.

1.04 INSTALLATION STANDARDS

- A. Comply with Specifications and referenced standards as minimum requirements.
- B. Components required to be supplied in quantity within a Specification Section shall be the same, and shall be interchangeable.
- C. Do not use materials and equipment removed from existing structures, except as specifically required, or allowed, by the Contract Documents.
- D. Perform work by persons qualified to produce workmanship of specified quality.
- E. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, and racking.
- F. When work is specified to comply with manufacturers' instructions, submit copies as specified in Section 01300 - Submittals, distribute copies to persons involved, and maintain one set in field office.
- G. Perform work in accordance with details of instructions and specified requirements.

PART 2 PRODUCTS

NOT USED

PART 3 EXECUTION

NOT USED

END OF SECTION

SECTION 01800

MAINTENANCE

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Procedures for maintaining work completed under this Contract.

1.02 MAINTENANCE PERIOD

- A. The general maintenance period for all construction or materials under this Contract shall be one (1) year subsequent to the date of the acceptance of the work by the Owner, or as provided by other sections of this Specification.
- B. If the Owner puts any structure or equipment to use prior to acceptance of all work under the Contract, the maintenance period for such structures or equipment shall be calculated from the time use begins.
- C. Contractor agrees to replace the material which does not conform to the Contract requirements, and to repair any damage of material or work without cost to the Owner, to satisfaction of Engineer, in conformance with Contract Documents provided orders for replacement and/or repairs are received in writing by the Contractor within the one year period.
- D. This Section shall in no way limit the duration of the Contractor's responsibility for the correction of any defect due to workmanship or materials provided by the Contractor which are not in compliance with the Contract Documents.

1.03 ABUSE OF WORK

- A. Contractor is not obligated to perform work of replacement or repair that he may prove is required because of abuse by parties other than the Contractor, after the date the Owner puts to continuous use the work requiring replacements or repair, or after date the Owner has approved the Certificate of Completion.

1.04 EMERGENCY REPAIRS

- A. If the Owner deems necessary, the Owner shall order replacement or repairs be undertaken within 24 hours.
- B. If the Contractor delays or fails to make the ordered replacement or repairs within the time specified, the Owner shall have the right to make such replacements or repairs and the expense shall be deducted from moneys due the Contractor, or moneys of the Contractor retained by the Owner.

PART 2 PRODUCTS

NOT USED

PART 3 EXECUTION

NOT USED

END OF SECTION

DIVISION 2

SPECIAL PROVISIONS SUMMARY OF WORK AND SPECIFIC REQUIREMENTS

SCOPE OF WORK

The work to be done under this contract consists of furnishing all necessary labor, materials and equipment required for the preservation of the Ironstone Road, Carney Street, and Aldrich Street Bridges, including roadway reconstruction. The project will include other improvements in accordance with the plans and these Special Provisions.

The work includes stone masonry wall repairs, concrete wall and deck slab repairs, demolition and reconstruction of reinforced concrete wingwalls, installation of reinforced concrete moment slabs, installation of bridge and approach guardrail, removal of vegetation, removal of river channel debris, full depth pavement reconstruction, concrete sidewalk reconstruction, pavement markings and the provision of safety controls and signing for construction operations and other incidental items included in the contract documents necessary to complete the Project.

The roadways at Carney Street and Aldrich Street will be closed to vehicular traffic for the duration of the construction project. A detour route will be assigned.

The roadway at Ironstone Road will be reduced to a single lane of alternating traffic with temporary signal controls for the duration of the construction project.

The Contractor shall coordinate their work with all utility owners and the Town of Uxbridge before and during the work.

“Engineer” or “Director” shall mean the Town Engineer/City Engineer or his appointed agent(s).

“Town/City” or “Department” shall mean the Town of Uxbridge.

The location, general characteristics, and principal details of the Work are indicated in three sets of Drawings, entitled “Ironstone Road Bridge Preservation”, “Carney Street Bridge Preservation”, and “Aldrich Street Bridge Preservation”.

All work under this contract shall be done in conformance with the Massachusetts Department of Transportation *Standard Specifications for Highways and Bridges* dated 2023; the *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.

References within the Standard Specifications to the Massachusetts Department of Transportation or the Engineer shall for the purposes of this Contract be construed to mean the Town of Uxbridge or its representative.

ARCHITECTURAL ACCESS BOARD TOLERANCES

The Contractor is hereby notified that they are ultimately responsible for constructing all project elements in strict compliance with the current AAB/ADA rules, regulations, and standards.

All construction elements in this project associated with sidewalks, walkways, wheelchair ramps and curb cuts are controlled by 521CMR - Rules and Regulations of the Architectural Access Board (AAB).

The AAB Rules and Regulations specify maximum slopes and minimum dimensions required for construction acceptance. There is no tolerance allowed for slopes greater than the maximum slope or for dimensions less than the minimum dimensions.

INTERFERENCE WITH EXISTING STRUCTURES: Whenever it may be necessary to interfere with existing drains, water pipes or fixtures, guardrail, fences, electrical or telephone cables or conduits, or fixtures or other structures needing special care, due notice shall be given to the Engineer, and the work shall be done according to his directions. Whenever required, all objects shall be strengthened to meet any additional stress that the work herein specified may impose upon it, and any damage caused shall be thoroughly repaired. The entire work shall be the responsibility of the Contractor and the work shall be performed at no additional expense to the Town of Uxbridge.

The Contractor shall be responsible for any damage to all known mains or utilities encountered during the progress of the work and shall repair and be responsible for correcting all damages to such existing utilities and structures at no additional expense to the Town. The Contractor shall contact the proper utility or authority to correct or make any changes due to utility or other obstructions during the work of construction, but the entire responsibility and expense shall be with the Contractor.

All items required to be removed and replaced due to construction and all existing items damaged by the Contractor shall be replaced or repaired by the Contractor to the complete satisfaction of the property owners and/or the Engineer at no additional expense to the Town of Uxbridge, unless otherwise specified.

EXISTING UTILITIES OR CONNECTIONS: The location of existing underground pipes, cables, conduits and structures as shown has been collected from the best available sources and the Town of Uxbridge together with its agents does not imply or guarantee the data and information in connection with underground pipes, cables, conduits, structures and such other parts as to their

completeness not their locations as indicated. The Contractor shall contact utility owners and request marking locations of all their lines in the work areas. Any expense and/or delay occasioned by these utilities and structures or damage thereto, including those not shown, shall be the responsibility of the Contractor at no additional expense to the Town of Uxbridge.

PROPERTY BOUNDS (Supplementing Subsection 7.13 of the MassDOT Highway Standard Specifications)

The Contractor shall exercise due care when working around all property bounds which are to remain. Should any damage to a bound result from the actions of the Contractor, the bound shall be accurately replaced and/or realigned by the Contractor as required by the Engineer. The Contractor shall employ a Land Survey register in Massachusetts to perform this work. No further compensation will be due the Contractor for the materials and labor required to re-establish a bound disturbed by the Contractor except as otherwise noted herein.

PUBLIC SAFETY AND CONVENIENCE (Supplementing Subsection 7.09 of the MassDOT Highway Standard Specifications)

The Contractor shall provide, in accordance with the Contract Plans, all traffic barriers, signs and all other specified traffic control devices needed to detour the Chestnut Street traffic around the construction site.

Miscellaneous construction activities needing temporary lane closures for access to the construction shall be done at the approval of the Engineer. Travel lane closures shall be allowed based solely on the discretion of the Engineer and with the presence of police detail officers as scheduled by the Contractor.

The Contractor shall carry on his/her work concurrently and in conjunction with the Utility Companies involved with the Project so as to provide for all possible cooperation towards the satisfactory completion of the work with minimum delay and inconvenience to the utility owners and the general public.

The Contractor shall order all materials and service required for the work immediately after the execution of the Contract. The Contractor shall not start any operation until all materials required for the operation are at the site or until the Engineer is satisfied that the materials will be delivered in such order that there will be no interruption to continuous and efficient progress.

Existing utility information shown on the drawings is believed to be correct but such data is not guaranteed and should be verified by the Contractor for exactness.

The Contractor shall be responsible for maintenance of flow in all water courses, drains and other pipes in the way of the proposed work or for any conveyance of the flow to a suitable point of discharge in such a manner that there will be no flow upon or hindrance to other work or cause nuisance of any kind.

Particular care should be taken to establish and maintain methods and procedures which will not create unnecessary or unusual hazards to public safety. The placement of necessary devices will be for daily work periods and shall be removed after the completion of work operations. Signs having messages that are irrelevant to normal traffic conditions will be removed or properly covered at the end of each work period. Signs are to be kept clean at all times and legends shall be distinctive and unmarred.

The Contractor shall take necessary precautions to avoid spillage from his trucks onto the traveled ways. Any materials which may drop from the vehicles when being hauled over the street shall be removed immediately by the Contractor. Sweeping and cleaning of surfaces beyond the limits of the project to clean up material caused by spillage or vehicular tracking during the various phases of the work shall be considered as incidental to the work being performed under the Contract and there will be no additional compensation.

Top course will be placed on completed base course sections when there is sufficient distance to permit efficient placement operations. Only after the entire project has been completed to base course level will the top course materials be allowed to be placed.

The Engineer reserves the right to alter the lengths of excavation and other operations in order to ensure the safety of the traveling public and abutting property owners.

The bridge closure shall not commence until the construction signing and traffic barriers as described in the Contract Drawings have been installed by the Contractor and approved by the Engineer.

RESTRICTIONS

Access to adjacent driveways at each of the project locations shall be provided at all times.

The Contractor shall provide necessary access for fire apparatus and other emergency vehicles through the work zones to abutting properties at all times.

The bridges at Carney Street and Aldrich Street shall not be closed to traffic until the Contractor has received approvals for all materials and procedures required for construction activities scheduled to occur during the bridge closure period. Additionally, the bridge shall not be closed to traffic until all such materials are either on site, or the Contractor can provide a delivery schedule from his suppliers showing scheduled delivery dates that would be in agreement with the Contractor's schedule to enable uninterrupted construction during the bridge closure period.

The Contractor shall notify the Engineer and the Town of Uxbridge Public Works Department 14 days before the bridge closure.

In general, work on this project is restricted to a normal eight-hour day, five-day week, with the Contractor and all Subcontractors working on the same shift. When extended work hours are

required for certain activities, the Contractor shall provide the Engineer with at least 72 hours' advance notice.

If night work is requested by the Contractor, then no additional payment will be made for additional traffic management required and shall be included in the cost of the appropriate contract item(s). Also, night work cannot occur unless approved by the Engineer.

NOTICE TO OWNERS OF UTILITIES

Written notice shall be given by the Contractor to all public service corporations or municipal and State officials owning or having charge of publicly or privately owned utilities of his intention to commence operations affecting such utilities at least one week in advance of the commencement of such operations. The Contractor shall, at the same time, file a copy of such notice with the Engineer.

Full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in protecting or repairing property as specified in this section shall be considered as included in the prices paid for the various contract items of work and no additional compensation will be allowed therefore.

The Contractor shall be required to furnish all labor, materials, and equipment necessary to protect underground structures and electrical vaults within the project site from construction debris and water penetration. When underground structures or electrical vault roofs are excavated, the Contractor shall be responsible for maintaining security of these structures or electrical vaults against unauthorized access. The Contractor shall be responsible for leaving the structures and vaults in a state of water tightness equal to that existing at the commencement of the contract.

INVESTIGATION 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, etc., will occur. The Contractor shall notify the City and Mass. DIG SAFE and procure a DIG SAFE number for each location prior to disturbing the existing ground in any way.

DIG SAFE Call Center 1-888-344-7233

The Contractor shall notify the City and Dig Safe 72 hours prior to start of construction.

TEMPORARY ACCESS TO AREA ABUTTERS

The Contractor shall provide safe and ready means of ingress and egress to all abutting properties in the project area, both day and night, for the duration of the project.

NEW INTRODUCTIONS OF INVASIVE PLANTS INTO OR AROUND THE SITE

(Supplementing Subsections 7.01(D) Plant Pest Control and 7.13 Protection and Restoration of Property)

The Contractor shall ensure that no invasive plant species, as defined and listed as Invasive, Likely Invasive, or Potentially Invasive, by the Massachusetts Invasive Plant Advisory Group <http://www.massnrc.org/MIPAG>, are introduced or spread around the site by construction activities including but not limited to improperly cleaned construction equipment and importation of infected materials such as borrow, compost, nursery stock, seed, or hay bales. Corrective measures, if necessary, shall be made by the Contractor as directed by the Engineer.

The Contractor shall be solely responsible for all costs associated with ensuring that invasive species are not introduced or spread around the site by construction activities and for all corrective measures required for as long as necessary to eliminate the introduced invasive plant species and prevent re-establishment of same.

DISPOSAL OF EXCAVATION MATERIAL

Surplus materials obtained from any type of excavation, and not needed for further use as determined by the Engineer shall become the property of the Contractor and shall be disposed of by him/her outside the location subject to the regulations and requirements of local authorities governing the disposal of such materials, at no additional compensation.

DISPOSAL OF SURPLUS MATERIALS

All existing and other materials not required or needed for use on the project, and not required to be removed and stacked, shall become the property of the Contractor and shall be removed from the site during the-construction period and legally disposed of. No separate payment will be made for this work, but all costs in connection therewith shall be included in the prices bid for various Contract items.

DRAINAGE (Supplementing Subsection 7.13 of the MassDOT Highway Standard Specifications)

The Contractor shall maintain the drainage system in the project areas to provide continual drainage of the travel ways and construction area.

All drainage castings in new pavement areas shall be installed at base or binder course grade, as directed by the Engineer, and reset to proposed finish surface grade prior to placement of the pavement surface course.

All pipes and structures installed as part of this Contract shall be left in a clean and operable condition at the completion of the work.

All existing pipes to be abandoned shall be plugged with brick masonry not less than 8” in thickness in conformance with the MASSDOT Standard Specifications, Section 201.62. If the abandoned pipes conflict with the proposed pipes then the abandoned pipes shall be removed and disposed.

No separate payment will be made for sawcutting required for installation of drainage pipe trenches and structures, but all costs in connection therewith shall be included in the unit price bid for drainage items.

No separate payment will be made for the maintenance of the existing drainage system or for plugging of pipes, or removing and disposing of pipes, but all costs in connection therewith shall be included in the unit prices bid for the various Contract items.

ENVIRONMENTAL CONTROLS

All construction equipment shall be fitted with suitable muffling devices so that the noise from construction operation shall be properly controlled.

The Contractor shall control all dirt, dust erosion and other related construction emissions from the project to the satisfaction of the Engineer.

The Orders of Conditions issued by the Town of Uxbridge Conservation Commissions has been included in Appendix B of these Special Provisions and made part of these Special Provisions.

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.

CONCRETE WASHOUT STATIONS

Concrete washout stations shall be a pre-engineered system. Design, details, and proposed locations of concrete washout stations shall be submitted to the Engineer and the Uxbridge Conservation Commission for approval prior to construction. No separate payment will be made for concrete washout stations.

MATERIAL STOCKPILES

Material stockpiles shall be enclosed with erosion control barriers. Proposed locations for material stockpiles shall be submitted to the Engineer and the Uxbridge Conservation Commissions for

approval prior to construction. No separate payment will be made for erosion control barriers for material stockpiles.

SAWCUTTING

Sawcuts shall be made in the existing pavement at areas of new or reset curb, limits of full depth pavement construction, limits of box widening, cement concrete pavement, sidewalk construction, limits of work, and as directed by the Engineer. Payment for this work shall be included in the unit price under the applicable items without additional compensation.

The work under sawcuts shall conform to the relevant provision of Section 480 of the Standard Specifications and the following:

Sawcutting equipment shall be approved by the Engineer prior to commencing work.

All edges of excavations made in existing pavements, driveways, and sidewalks which will not be overlaid and which will be visible shall be squared by sawcutting with power-driven tools to provide a neat, clean edge for joining new pavement and sidewalks as shown on the Plans. Ragged, uneven edges shall not be accepted. Areas which have been broken or undetermined shall be edged neatly with a minimum disturbance to remaining pavement or sidewalks.

Sawcut surfaces shall be sprayed or painted with a uniform thin coat of RS-1 asphalt emulsion immediately before placement of bituminous concrete material against the surface.

No separate payment will be made for sawcutting required for installation of drainage, and water pipe trenches, structures, conduit trench, and permanent utility trenches, but all costs in connection therewith shall be included in the unit price bid for applicable items.

SAFETY CONTROLS FOR CONSTRUCTION OPERATIONS

(Supplementing Subsection 850.21 and 850.61)

Safety controls for construction operations shall be done in accordance with the relevant provisions of Section 850 of the Standard Specifications, the Manual on Uniform Traffic Control Devices (MUTCD), the Traffic Management Plan, and the following:

The providing of safety controls for construction operations for all locations shall be considered incidental to this contract with the cost for safety controls considered to be included in the unit bid price for those contract items requiring such controls.

Installation, positioning, adjusting, and re-positioning of all devices such as traffic cones, reflectorized drums, high level warning devices, impact attenuators, etc., not otherwise classified and paid for under other items in this contract, is considered incidental and no separate payment will be made.

All safety signing, temporary pavement markings, reflectorized and lighted drums, and all other safety controls used for construction operations shall conform to the NCHRP 350 and the MUTCD, Current Edition, for Street and Highways including all amendments.

MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION FILE NUMBER SIGN

This project is subject to Massachusetts General Laws, Chapter 131, Section 40 as amended. Signs shall be in accordance with the latest MassDOT Construction Standards. All costs for the manufacture, erection, maintenance, moving, and removal of the signs shall be absorbed by the contractor with no additional compensation other than the contract unit prices.

For this project the Massachusetts Department of Environmental Protection File Number is **312-1137 for the Aldrich Street Bridge, 312-1138 for the Carney Street Bridge, and 312-1139 for the Ironstone Road Bridge.**

ENVIRONMENTAL PERMITTING

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

The project is subject to Massachusetts General Laws Chapter 131, section 40, the Massachusetts Wetlands Protection Act (WPA). This project is also 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.

Three Orders of Conditions (one for each bridge location) under the WPA have been issued for the project by the Uxbridge Conservation Commission. The Orders 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 Orders of Conditions are contained in Appendix B. The Contractor is advised that no additional compensation will be allowed for work required to establish, achieve, and maintain compliance with the Orders of Conditions, as payment for the work shall be included in the various bid items

The Orders of Conditions also serve as the Section 401 Water Quality Certification under section 401 of the Federal Clean Water Act.

ARMY CORPS OF ENGINEERS PERMITS

Work under this project is subject to Section 404 of the Federal Clean Water Act, 33 U.S.C. 1251 et seq and is authorized under the Department of the Army General Permits for Massachusetts (GPs), dated August 20, 2024, which are issued by the New England District of the U.S. Army Corps of Engineers (Corps). is submitted to the Corps. Activities subject to the GPs qualify for preconstruction notification provided that 1) the activity meets the terms and conditions of applicable GPs and General Conditions (GCs), and 2) a Pre-Construction Notification (PCN) is submitted to the Corps. A PCN listing the applicable GPs (GP-23) for the work under this project was submitted to the Corps. The GPs are to be considered part of this contract and a copy of the entire GPs document, PCN authorization and all associated plans/attachments shall be on-site while activities regulated by the GPs are being performed.

The Army Corps of Engineers Authorization and the General Permits are contained herein as Appendix C.

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 GPs document. The Contractor is advised that no additional compensation will be allowed for work required to establish, achieve, and maintain compliance with the GPs, as payment for the work shall be included in the various bid items, unless specified elsewhere. This work may include, but is not limited to, the following: the hiring and paying for the 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.

This authorization expires on June 1, 2028. **Work must commence or have under contract to commence the work authorized by June 1, 2028, and complete the work by June 1, 2029.**

GENERAL REQUIREMENTS FOR DEMOLITION AND WORK INVOLVING PAINTED STEEL

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

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 30µg/m³.

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.

PIGEON WASTE

The Contractor shall remove and disposal 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 contaminates will require special handling and disposal in accordance with all Federal, state, and local requirements. No separate payment shall be made for removal, special handling and proper disposal of pigeon waste and other debris found on Bridge components.

EMERALD ASH BORER ADVISORY

To the extent possible, all trees and brush shall be disposed on site, typically chipped and spread in place. When trees or brush must be removed, such as in urban, or otherwise populated areas, contractor shall identify, for approval by Engineer, proposed location for disposal. Disposal shall be in city or town of project, or at minimum, within county, of construction operations.

SPECIAL PROVISIONS
CONSTRUCTION SPECIFICATIONS

ITEMS

All Items of work in this Contract shall be governed by the "Commonwealth of Massachusetts Department of Transportation Standard Specifications", 2022 Edition.

The following items reflect special conditions particular to this Project. As such, they amend and/or supplement the provisions governing the Item, as described in the Standard Specifications.

ITEM 101. **CLEARING AND GRUBBING** **SQUARE YARD**

The work under this item shall conform to the relevant provisions of Section 101 of the Standard Specifications and the following:

The work shall include, but not be limited to, the removal and proper disposal of existing bushes, trees, brush and other materials not included for payment under other items necessary for the prosecution of the work as shown on the plans or directed by the Engineer.

Prior to performing clearing and grubbing operations, the Contractor and the Engineer shall review the site to identify areas requiring site clearing. Removal of stumps, roots, brush and other vegetation in areas to be cleared shall be removed as part of this item.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Clearing and Grubbing will be paid for at the contract unit price bid per Square Yard and shall include all labor, material and equipment required to complete the item to the satisfaction of the Engineer.

ITEM 102.51 **INDIVIDUAL TREE PROTECTION** **EACH**

The work under this item shall conform to the relevant provisions of Section 101 of the Standard Specifications and the following:

This work includes applying wood framing around the trunk or trunks of trees, from the ground level to the height of 6 feet as shown on the plans, in accordance with these specifications and/or as directed by the Engineer.

CONSTRUCTION METHODS:

The wood framing shall be placed around the tree trunk in sufficient quantity to protect the trunk from mechanical damage. (A minimum of 4 inches shall be between each wood frame.) The binding material shall be tight enough to prevent the wood from being moved. None of the

binding materials shall come in contact with the trunk or any portion of the tree. Under no circumstances shall nails or any other type of fastener enter the tree.

To the extent possible, to avoid soil compaction within the root zone, construction activities including, but not limited to, vehicle movement, excavation, embankment, staging and storage of materials or equipment shall not occur underneath the canopy (drip line) of trees to remain. Where these activities will occur within 10 feet of the canopy of trees, the Contractor shall provide Individual Tree Protection as specified herein.

A. Tree Fencing and Armoring

For individual tree protection, the Contractor shall set posts and fencing at the limits of the tree canopy. Where construction activities closer to the trees is unavoidable, the Contractor shall tie branches out of the way and place wood chips to a depth of 6 inches on the ground to protect the root systems. The Contractor shall wrap the area of the trunk of the tree with burlap prior to armoring with 2x4 inch cladding. Cladding for tree trunks shall extend from the base of the tree to at least 8 feet from the base.

Where excavation within canopy is unavoidable, the Contractor shall use equipment and methods that shall minimize damage to the tree roots, per recommendations of the Certified Arborist. Such methods may require root pruning prior to, as well as during, any excavation activities.

All trunk protection, branch protection, and woodchips shall be maintained throughout the duration of the contract.

B. Cutting and Pruning

Some pruning of roots and branches may be a necessary part of construction. Pruning will be performed on the same side of the tree that roots have been severed.

The Contractor shall retain the services of a Massachusetts State Certified Arborist to oversee any cutting of limbs, stem or roots of existing trees. All cuts shall be clean and executed with an approved tool. Under no circumstances shall excavation in the tree protection area be made with mechanical equipment that might damage the existing root systems.

Any tree root area exposed by construction shall be covered and watered immediately. Exposed tree roots shall be protected by dampened burlap at all times until they can be covered with soil.

C. Watering

Water each tree within the construction area where work is in progress twice per week until the surrounding soil of each tree is saturated for the duration of construction activities.

D. Removal of Protection

After all other construction activities are complete, but prior to final seeding, wood chips, branch protection, and trunk protection materials shall be removed and disposed off site by the Contractor at no additional cost.

E. Tree Damage

The Contractor shall be held responsible for the health and survival of the existing trees in the immediate vicinity of the of the construction area. Damage that, in the Engineer's opinion, can be remedied by corrective measures shall be repaired immediately. Broken limbs shall be pruned according to industry standards. Wounds shall not be painted. Trees or shrubs that are damaged irreparably shall, at the Engineer's discretion, be replaced per the requirements of Division I of these Special Provisions. Cost of replacement trees shall be borne by the Contractor.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT:

Individual Tree Protection will be measured for payment by each tree protection installed, complete in place. Individual Tree Protection will be paid for at the Contract unit price per each, which price shall include all labor, materials, equipment and incidental costs required to complete the work.

ITEM 107.855

PRESSURE INJECTION OF CRACKS

FOOT

The work to be done under this Item consists of repairing cracks in sound concrete.

Existing cracks designated by the Contractor, and approved by the Engineer, to be repaired by pressure injection, shall be bonded by penetration with an epoxy adhesive in accordance with the epoxy manufacturer's recommendations and the following:

The Contractor shall submit manufacturer's literature completely describing the products to be used. Only those products previously approved for the purpose intended herein and listed on the Qualified Construction Materials List maintained by the MassDOT Research and Materials Section may be used. The materials shall be delivered clearly marked with legible and intact labels containing the manufacturer's name, brand name, and identifications of the temperatures that conform to the manufacturer's recommendations and instructions.

The Contractor shall comply with all manufacturer's instructions and recommendations regarding safety. The surrounding work, vehicles, and vegetation shall be protected from damage by epoxy injection materials and operation. Not included under this Item are the repairs to cracks that pass through areas of unsound concrete. The Contractor will designate these areas for approval by the Engineer. The repairs to areas of unsound concrete are included under Item 905. - 4000 PSI, 3/8 IN., 660 Cement Concrete and/or Item 909.2 Cementitious Mortar For Patching.

The Contractor will not be permitted to continue to inject cracks until the cause of failure is determined and the Engineer is satisfied that corrective measures have been taken to prevent additional failures. The Contractor shall make additional cores as necessary until the work is considered acceptable.

The Contractor shall furnish to the Engineer samples of materials proposed for use at least six weeks prior to scheduled use.

The Contractor shall arrange with the materials manufacturer or distributor to have the services of a competent field representative at the work site prior to any mixing of components to instruct the work crews in the proper mixing and application procedures. The field representative shall remain at the job site after work commences and continue to instruct until the Engineer is satisfied that the crew has mastered the technique of installing the system successfully. The representative shall

make periodic visits to the project as the work progresses and shall confer on each visit with the Contractor and the Engineer.

The manufacturer's field representative shall be fully qualified to perform the work and shall be subject to the approval by the Engineer.

The Contractor shall be completely responsible for the expense of the services of the required field representative.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

The Measurement and Payment for work under Item 107.855 will be made at the Contract unit price per foot of each crack repaired.

ITEM 115.11

DEMOLITION OF BRIDGE NO. U-02-038

LUMP SUM

The work to be done under this item shall conform to the relevant provisions of Section 112 and the following:

The work shall consist of the complete removal and satisfactory disposal of the concrete bridge railing and wingwalls. Work shall also include removing and stacking the existing jersey barrier. The barrier shall be stacked at the Uxbridge Public Works Department located at 147 Hecla Street. It shall be the Contractors responsibility to coordinate the stacking time and location with the Town.

The Contractor shall make adequate provisions, including the erection of a temporary protective shielding, for the protection of traffic and personnel from damage and injury due to excavation operations and debris removal, and to prevent any debris from falling into the water below. Said shielding shall be in accordance with and paid for under Item 994.1.

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

All materials removed under Item 115.11, apart from the jersey barrier, shall become the property of the Contractor and shall be removed from the job site, unless such materials are designated to be reused in the proposed construction.

During the prosecution of the work under this Item, the Engineer may reject the use of any method or equipment which causes undue vibration or possible damage to the remaining structure or any part thereof. It shall be the Contractors responsibility to maintain stability of the structure at all times during the execution of his work. Any instability or damage that occurs as a result of the Contractors operation shall be repaired by the Contractor at his expense.

The Contractor shall prepare and submit a plan indicating their proposed demolition procedures and methods to be used including equipment, tools, devices, crane capacity and location, schedule of operations, methods of utility protection, etc., to the Engineer for approval.

BASIS OF PAYMENT

The Contractor will make his own investigation of the structure to be demolished including the materials that are part of the structure. No increase will be made to the bid price due to the nature

of the materials involved in the demolition. All costs for permits, dump fees, taxes, etcetera, shall be included in the bid price of the demolition item.

The work described under this item will be paid for at the contract unit price bid per Lump Sum for Item 115.11 and shall include all necessary labor, equipment and materials necessary to complete the work.

ITEM 115.12

**DEMOLITION OF
BRIDGE NO. U-02-070**

LUMP SUM

The work to be done under this item shall conform to the relevant provisions of Section 112 and the following:

The work shall consist of the complete removal and satisfactory disposal of the metal bridge railing and stone wall as needed to accommodate a moment slab.

The Contractor shall make adequate provisions, including the erection of a temporary protective shielding, for the protection of traffic and personnel from damage and injury due to excavation operations and debris removal, and to prevent any debris from falling into the water below. Said shielding shall be in accordance with and paid for under Item 994.1.

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

All materials removed under Item 115.12 shall become the property of the Contractor and shall be removed from the job site, unless such materials are designated to be reused in the proposed construction.

During the prosecution of the work under this Item, the Engineer may reject the use of any method or equipment which causes undue vibration or possible damage to the remaining structure or any part thereof. It shall be the Contractors responsibility to maintain stability of the structure at all times during the execution of his work. Any instability or damage that occurs as a result of the Contractors operation shall be repaired by the Contractor at his expense.

The Contractor shall prepare and submit a plan indicating their proposed demolition procedures and methods to be used including equipment, tools, devices, crane capacity and location, schedule of operations, methods of utility protection, etc., to the Engineer for approval.

BASIS OF PAYMENT

The Contractor will make his own investigation of the structure to be demolished including the materials that are part of the structure. No increase will be made to the bid price due to the nature of the materials involved in the demolition. All costs for permits, dump fees, taxes, etcetera, shall be included in the bid price of the demolition item.

The work described under this item will be paid for at the contract unit price bid per Lump Sum for Item 115.12 and shall include all necessary labor, equipment and materials necessary to complete the work.

ITEM 115.13

**DEMOLITION OF
BRIDGE NO. U-02-069**

LUMP SUM

The work to be done under this item shall conform to the relevant provisions of Section 112 and the following:

The work shall consist of the complete removal and satisfactory disposal of the metal bridge railing as needed to accommodate a moment slab and guardrail. The work shall also include removal of the existing asphaltic wearing on the concrete deck slab

The Contractor shall make adequate provisions, including the erection of a temporary protective shielding, for the protection of traffic and personnel from damage and injury due to excavation operations and debris removal, and to prevent any debris from falling into the water below. Said shielding shall be in accordance with and paid for under Item 994.1.

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

All materials removed under Item 115.12 shall become the property of the Contractor and shall be removed from the job site, unless such materials are designated to be reused in the proposed construction.

During the prosecution of the work under this Item, the Engineer may reject the use of any method or equipment which causes undue vibration or possible damage to the remaining structure or any part thereof. It shall be the Contractors responsibility to maintain stability of the structure at all times during the execution of his work. Any instability or damage that occurs as a result of the Contractors operation shall be repaired by the Contractor at his expense.

The Contractor shall prepare and submit a plan indicating their proposed demolition procedures and methods to be used including equipment, tools, devices, crane capacity and location, schedule of operations, methods of utility protection, etc., to the Engineer for approval.

BASIS OF PAYMENT

The Contractor will make his own investigation of the structure to be demolished including the materials that are part of the structure. No increase will be made to the bid price due to the nature of the materials involved in the demolition. All costs for permits, dump fees, taxes, etcetera, shall be included in the bid price of the demolition item.

The work described under this item will be paid for at the contract unit price bid per Lump Sum for Item 115.12 and shall include all necessary labor, equipment and materials necessary to complete the work.

ITEM 127.12

REINFORCED CONCRETE EXCAVATION FOR REPAIRS

CUBIC FOOT

The Work shall conform to the relevant Provisions of Section 120 of the Standard Specifications and the following:

The Work under this Item consists of the removal and disposal of all deteriorated and spalled concrete for repair.

During the prosecution of the Work, the Engineer may reject the use of any method or equipment, which causes undue vibration or possible damage to the structure or any part thereof.

In no event shall any pneumatic hammers heavier than the nominal 25 Lbs. (Chicago Pneumatic No. 111 or equal) be used, unless approved by the Engineer. Also, no use of pneumatic or power driven chipping hammers over the nominal 15 Lbs. will be permitted to remove any concrete from below any reinforcing bar.

The Contractor shall take all precautions necessary so as not to damage those portions of the Bridge including reinforcing steel that are to remain. This includes determining the concrete cover to the steel bars at the edge of each patch prior to excavating concrete.

All excavations shall be squared off by sawcutting. Any sawcut and removal of reinforcement required shall be considered incidental to this item. The Contractor shall not remove any concrete beyond the specified limits unless ordered to do so by the Engineer. Any existing concrete designated to be retained during construction that is damaged by the Contractor's operation shall be replaced at the Contractor's expense as directed by the Engineer.

Included under this Item are all costs in connection with the cleaning, cutting, and bending of the existing reinforcing steel designated to be retained in the proposed construction. Also included as incidental to this item shall be the roughening of existing concrete surfaces for the placement of new concrete as shown on the Plans, or directed by the Engineer.

Immediately before preparation for placement of new concrete, the exposed area to be patched shall be free of foreign materials. These materials shall be removed by grit blasting or wire brushing and by use of compressed air. No grease, dust, rust, or laitance will be allowed to remain on reinforcing steel and exposed concrete surfaces.

The Contractor shall take all measures necessary to protect pedestrian and vehicular traffic from his construction operations. No debris, tools or incidental equipment of any kind will be permitted to fall into areas where vehicular or pedestrian traffic exists. Any material that accidentally falls into such areas shall be removed immediately.

Surplus materials obtained from any type of excavation, and not needed for further use, as determined by the Engineer shall become the property of the Contractor and shall be disposed of by the Contractor outside the location subject to the regulations and requirements of all authorities governing the disposal of such materials, at no additional compensation.

The Contractor is required to broom clean all work site areas after the removal of excavated debris regardless of preexisting conditions. This includes areas under the excavated repair area such as pier caps, revetment areas, and bridge shielding areas. Removal of debris, site cleaning, and disposal of debris is incidental to the Contract and no additional payment will be made.

CONSTRUCTION METHODS

- A. Inspection of the Concrete Surfaces: The Contractor will perform his own investigations and will "evaluate" and mark out the surfaces of the concrete to determine the areas for repairs. Methods for evaluation shall include nondestructive methods such as visual observations and acoustic impact method using a hammer or chain drag (for horizontal surfaces only). The Contractor is referenced to ACI Report 201.1R-92 "Guide for Making a Condition Survey of Concrete in Surface" and ACI Report 364.1R-94 "Guide for Evaluation of Concrete Structures Prior to Rehabilitation" in regards to evaluation methods. Before any existing concrete is removed, the Contractor will provide the Engineer clear access to the areas designated for repair. During this time, the Engineer will perform

an inspection of the areas and will approve and/or designate the areas where concrete removal and repair will be required.

It shall be the responsibility of the Contractor to inform the Engineer, in writing, of the date that a structure will be available for inspection operations. Notification shall be given to the Engineer at least seven (7) days prior to the date that the area in question will be in a condition acceptable to the Engineer.

The Contractor will not be allowed to do any further repair work until all necessary inspection operations have been performed, unless given permission by the Engineer.

The Contractor will include any costs related to this inspection in the general cost of the work.

- B. Removal of Deteriorated Concrete: All deteriorated concrete designated for removal under this Item shall be removed within the limits approved by the Engineer. The lateral limits of each area to be repaired will be delineated by the Contractor and suitably marked and subsequently approved by the Engineer. Where several areas are to be repaired are very close together, the Engineer may combine these individual repairs into a larger area. The outlines of each such area shall first be cut to a depth of ½ inch with an approved power-saw capable of making straight cuts. In the event that reinforcing steel is encountered within the outer ½ inch depth during sawing operations, the depth of sawcut shall immediately be adjusted to a shallower depth so as not to damage the steel bars. If so directed by the Engineer, sawcutting shall again be carried down to the ½ inch depth at other locations of repair provided reinforcing steel is not again encountered. Where over-breakage occurs resulting in a featheredge, the featheredge shall be squared up to a vertical edge in an approved manner. Where sawing is impractical, the area shall be outlined by chisel or other approved means.

After completion of concrete removal, the sides of the patch shall be vertical down to the bottom of the patch.

The minimum depth of concrete removal shall not be less than the specified minimum thickness of repair material.

If removal of deteriorated concrete results in full or partial exposure of reinforcing steel, but less than 1" clearance exists between the sound concrete and the inside surface of exposed reinforcing steel, enough sound concrete as is necessary to achieve this 1" minimum clearance shall be removed.

Where the existing reinforcing steel is damaged or deteriorated it shall be supplemented with new reinforcing steel of the same size. Pneumatic tools shall not be placed in direct contact with reinforcing steel. Any sound reinforcing steel damaged during the concrete removal operations shall be repaired or replaced by the Contractor at his expense as directed by the Engineer. New steel shall be attached beside existing steel with a minimum splice length as indicated on the Plans, or as directed by the Engineer. The concrete shall

be removed to a minimum depth of 1 inch below the new steel. New reinforcing steel shall be paid for under Item 910.1.

- C. Surface Preparation: Areas to be repaired must be clean, sound, and free of contaminants. All loose and deteriorated concrete shall be removed by mechanical means. Mechanically prepare the concrete substrate to obtain a surface profile of +/- 0.25 inches with a new exposed aggregate surface. Area to be patched shall not be less than ½ inch in depth for repairs using Cementitious Mortar for Patching and 1½ inches for repairs using 4000 PSI, 3/8", 660 Cement Concrete.

If reinforcing steel is exposed, then clean by mechanical cleaning and then high pressure washing with water that does not contain detergents or any bond inhibiting chemicals. Where active corrosion has occurred that would inhibit bonding, abrasion blast steel to white metal finish.

After removals and edge conditioning are complete, remove bond inhibiting materials (dirt, grease, loosely bonded aggregate) by oil-free compressed air, abrasion blasting, or high pressure water blasting with water that does not contain detergents or any bond inhibiting chemicals. Check the concrete surfaces after cleaning to insure that surface is free from additional loose aggregate or that additional delaminations are not present.

After the surface preparation has been accepted, every effort should be made to thoroughly wet the concrete surface, and all porous surfaces to be in contact with new concrete, for 12 hours. This may be accomplished by continuous wetting with soaker hoses or the use of burlap/burlene, etc. where moisture can be maintained. If, in the opinion of the Engineer, conditions or the situation prohibits this, then the surfaces should be wetted for as long as possible. Surfaces must be wetted by a means acceptable to the Engineer using potable water.

The Contractor shall remove any puddles of free standing water with oil-free compressed air, and protect the surfaces from drying, so the existing concrete remains in a clean, saturated surface dry condition until placement of the new concrete.

METHOD OF MEASUREMENT

Reinforced Concrete Excavation for Repairs will be measured for payment by the number of cubic feet of material excavated, as determined by field measurements conducted by the Contractor and verified by the Engineer.

BASIS OF PAYMENT

Reinforced Concrete Excavation for Repairs shall be paid for at the contract bid price per cubic foot and shall constitute full payment for excavation, saw cutting, abrasion blasting, removal, and satisfactory off-site disposal of all excavated materials, and the furnishing of all tools, labor, equipment transportation and all incidental work required to properly execute the work in accordance with these specifications and to the complete satisfaction of the Engineer.

ITEM 626.3

STEEL THRIE BEAM HIGHWAY GUARD

FOOT

(SINGLE FACED/BASE & SIDE ANCHOR)

The work under this heading shall conform to the applicable provisions of Section 601 of the Standard Specifications and the following:

Thrie Beam Guardrail with Handrail shall be a modified thrie beam system with a pipe handrail mounted to a reinforced concrete moment slab, or to the face of a existing concrete slab, as shown on the Plans. The posts at the terminus of the handrail may be in conflict with existing stone retaining walls. Coring of these holes may be required to install the posts. Holes shall be backfilled with 4,000 PSI in accordance with Section 901 of the Standard Specifications. The post locations shall be field templated prior to the fabrication of the handrail to ensure linear alignment of the handrail.

METHOD OF MEASUREMENT & BASIS OF PAYMENT

Steel Thrie Beam Highway Guard will be measured and paid by FOOT in its final position from center to center of each respective handrail terminus post. The cost shall include all labor and materials required to install the thrie beam guardrail and handrail as shown on the drawings. Installation shall include all thrie beam guardrail, posts, pipes, steel plates, angles, anchor bolts, and ancillary hardware. If coring of the stone wall and backfilling with 4,000 PSI is required at the handrail terminus post it shall be considered incidental to this Item.

ITEM 657.

TEMPORARY FENCE

FOOT

Work under this item shall conform to the relevant provisions of Section 644 and the following:

Temporary fence, including foundations, moveable foundations, and supports, shall be furnished, installed, maintained, and removed under this item.

Temporary fence shall be six (6) feet high, with top and bottom spring tension wire, chain link fabric, hardware conforming to MassDOT construction standard details, and shall be either new or used in good condition. Materials that are not acceptable to the Engineer shall be removed and replaced at no additional compensation.

Temporary fence shall be installed at the locations shown on the plans, detail sheets or as directed by the Engineer. The fence shall be erected to secure the area effected before other work commences in the same area. Temporary fence shall include gates, where noted and as may be requested by the Engineer, with locks as required to access the work.

Posts shall be spaced at 10 feet maximum.

For temporary fence in locations that differ from those shown on the plans or detail sheets, measurement will be made once for each location installed prior to removal.

Temporary fence, including foundations, shall be removed from the project after work is complete in the area secured by the fence or as required for final grading, for accommodation of of project installations or project clean up, as authorized by the Engineer. Areas disturbed by fence removal shall be restored, incidental to the work under this item.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Item 657., Temporary Fence will be paid for at the Contract unit price per foot, complete in place and maintained, which price shall include all materials, labor, equipment and incidental costs to complete the work.

No payment will be made for removal of temporary fence from the project.

ITEM 685.1

MASONRY WORK

SQUARE FOOT

Work under this Item shall conform to Section 685 of the Standard Specifications and the following.

Work under this item shall include replacing/resetting stones that have shifted or fallen; and fitting new stones into voids in existing stone masonry walls to the limits shown on the plans, or as directed by the Engineer. The work shall include all materials, equipment, tools, and labor necessary to install and mortar stone masonry on the existing retaining wall, including removal of existing vegetation. Cleaning and repointing joints where existing mortar is missing or has become deteriorated shall be paid under Item 908.

MATERIALS

The Contractor shall use sound stone salvaged from the existing wall, lying at the base of the wall, and new stone as required to make the appropriate repairs

Stone shall be hard, sound durable and free from weathering decay and defects like cavities, cracks, flaws, sand holes injurious veins, patches of loose or soft material and other similar defects that may adversely affect strength and appearance. As far as possible new stones shall be of uniform color, quality and texture, and similar to the existing stones.

New stones shall be limited in size such that they can be lifted and placed by hand. Unless otherwise specified, the length of individual stone masonry shall not exceed three times the height or breadth at the base of the stone. New stones shall not exceed three quarters the thickness of the wall at that level placed but shall not be less than 2 inches. New stones shall not exceed 12 inches in height.

All stones shall be dressed to the required size and shape before being laid.

Mortar shall be composed of one part Portland cement and two parts of sand by volume with sufficient water to form a workable mixture. It shall also be in conformance with Section M4.02.15 of the Standard Specifications.

Masonry shall be laid and the face pattern shall be of uniform appearance throughout so as to match the original pattern. Stone shall be laid on beds parallel to the profile of Eliot Street.

Each stone to be set in mortar shall be cleaned and thoroughly wetted before being set. They shall be set on full beds of mortar, and mortar joints shall be full and the stone settled in place before the mortar has set. The space between face stone and concrete interior shall be filled with mortar.

CONSTRUCTION METHODS

Contractor Qualifications:

The work must be accomplished by stonemasons with demonstrated proficiency in stone masonry construction/restoration practices. Documentation in the form of professional certifications and the locations of at least three (3) successfully completed stone masonry projects of similar type and scale must be presented to the Engineer no less than 30 days prior to the start of work. This documentation must be approved by the Engineer for the masonry contractor to be allowed to perform the work. The approved mason(s) are to complete the entire work item for which the approval was given.

The general limits of repair areas are noted on the Plans. The Contractor shall be responsible for verifying the areas and shall mark the areas they deem in need of repair to be inspected and verified by the Engineer. The Engineer may add or subtract areas to be repaired based on a review of the areas identified by the Contractor.

Marks shall be made by a process that will not be visible upon completion of the work. The Contractor shall provide access for the Engineer to perform inspections during the progress of the work.

The Contractor shall submit a catalog cut of proposed cleaning methods to the Engineer for approval prior to ordering any material

MEASUREMENT AND PAYMENT

Masonry work shall be measured by the actual number of square feet of the face area of accepted masonry facing, completed within the neat lines as shown on the plans, or as ordered by the Engineer. Areas of repaired/repointed masonry will be determined based on the outermost horizontal and vertical limits of the stones repointed and approved by the Engineer.

Payment shall include full compensation for all the work prescribed herein, including materials, equipment, tools, and labor, at the Contract bid price per square foot.

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 the following:

This work shall include the furnishing and placement of a sediment control barrier for the purpose of slowing the velocity of and filtering suspended sediments from storm water flow. Control barrier shall be installed prior to disturbing upslope soil. Sediment barrier shall be used as perimeter barriers, to contain stockpile sediments, to break slope length, and to slow or prevent up gradient water from flowing into a work zone.

Sedimentation control shall be a minimum 12 inch diameter compost filter tubes.

With approval from the Engineer the following may be used to control sediments for small disturbed areas with minimal slope and slope length:

- 9 inch diameter compost filter tubes or fiber logs
- Trenched-in 12 inch diameter straw tubes/wattles
- Straw or haybales provided that runoff is in the form of sheet flow and not concentrated flows (i.e., channels, swales, gullies, etc.).

Where required, by the Engineer, silt fence shall be used in addition to compost filter tubes to contain sediments. Silt fence will be incidental to the item. Where haybales and silt fence are required by permits, silt fence shall be incidental to the item.

Maintenance of control barriers and removal of accumulated sediment shall be as specified below, as required by the Engineer, and shall conform to the requirements of relevant environmental permits.

Upon completion of work and stabilization of soil, sediment control barriers shall be dismantled and/or removed as specified below for the site context (naturalized or urban). Site shall be restored as specified for specific barrier used.

All non-biodegradable materials, including silt fence, twine, plastic netting, and photodegradable fabric, shall be removed and disposed off-site for all projects.

CONSTRUCTION

Location of sediment barrier shall be based on the site's contours and such that it provides 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

Material for the compost 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.

Tubes for compost filters shall be a minimum of 12 inches in diameter. Tube material shall be a knitted mesh with 1/8 - 3/8" openings and made of 100% biodegradable materials (i.e., cotton, hemp or jute). Additional reinforcement tubes shall be used at the direction of the Engineer.

Stakes for anchoring shall be as shown on the plans and shall be a minimum of 1x1 inch diameter x 3 feet oak stakes or 2x2 inch diameter 3 foot pine stakes.

Tubes of compost may be filled on site or shipped. 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.

In areas subject to sheet flow, rill erosion or concentrated flows, compost filter tube may require reinforcement with silt fencing as specified below. Silt fencing will be incidental to this item.

Compost tubes 9 inches in diameter may be used on flat surfaces where heavy flow is not expected and only upon approval of the Engineer. In these instances, tubes shall meet the requirements above.

Hay Bales

Hay bales shall conform to the requirements of the Standard Specifications and the following:

Bales should be a minimum size of 12 inch x 16 inch 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 barrier shall be trenched and backfilled. The trench shall be excavated the width of the bale and the length of the proposed barrier to a minimum depth of 4 inches. After the bales are staked

and chinked (filled by wedging) 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.

Each bale should be securely anchored by at least two 1x1 inch diameter x 4 foot oak stakes or 2x2 inch diameter pine x 4 foot stakes driven through the bale. Stakes of other material of equivalent strength may be used if approved by the Engineer.

Hay bales shall be on upslope side of the silt fence unless specified otherwise by the Engineer.

Straw Wattle

Straw wattle shall be used only on flat surfaces where heavy flow is not expected and upon approval of the Engineer.

Straw wattle shall be a minimum of 12 inch in diameter and comprised of weed-free agricultural straw fibers encased in durable netting, and shall have a density of 3 lb/foot.

Straw wattle shall be trenched in 3-5 inches deep and staked according to the manufacturer's recommendations. Tubes shall be staked every 5 feet, or if using 10 foot lengths, staking shall be a minimum of one stake on each end and one in the middle. Stakes shall be driven in at least 6 inches into the ground, stopping two inches above the tube or wattle. Ensure that the tube is securely tamped on the upstream side to prevent water flowing underneath the tube.

Stakes for anchoring shall be a minimum of 1x1 inch diameter x 3 foot oak stakes or 2x2 inch diameter x 3 foot pine stakes.

Silt Fence

Silt fence fabric shall be a minimum of 36" in width. Silt fence shall be trenched in 8 inches deep and 4 inches wide, or a V-trench on the upslope side of the fence line. The bottom 1 foot of fabric shall be placed in the trench, backfilled and compacted with earth or gravel.

Stakes shall be driven 16 inches into the ground on the down slope side of the trench. Spacing of stakes for silt fence may range from a minimum of 10 feet apart where low flow is expected to 3-4 feet apart where water may run over the top of the fence. Sagging fabric will require additional staking or other anchoring. Stakes shall be 2x2 inch diameter oak stakes.

Height of silt fence should be appropriate to the steepness and length of the slope and as specified by the manufacturer.

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

Item 767.121 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 816.81

TEMPORARY TRAFFIC CONTROL SIGNAL BRIDGE NO. U-02-069

LUMP SUM

Work consists of furnishing all labor, material, transportation, equipment, accessories, appurtenances and services necessary and/or incidental to the proper furnishing and installation of a complete portable temporary traffic signal system with doppler radar on Ironstone Road.

This shall include all work shown on the plans, described in the Specifications, or as reasonably inferred from either, in the opinion of the Engineer and/or the Town of Uxbridge, as being required to provide complete, operational portable traffic signal systems as described herein and shown on the plans.

Included in the work is the furnishing and installing of temporary portable traffic control signal equipment, including controller cabinets, vehicle housings, backplates, red, yellow, and green LED signals, doppler radar detection system, and any service connections, wire and cables, electrical connections, and all other equipment, materials and incidental costs necessary to provide complete, fully operational portable traffic control signal system as specified herein and as shown on the plans.

GENERAL

The temporary traffic signal system shall be a Portable Traffic Signal (PTS). The PTS shall be trailer mounted units. Each unit shall be self-contained and consist of two signal heads per trailer. One signal head shall be mounted on an overhead mast arm capable of extending over the travel lane. The other signal shall be mounted on a vertical upright.

SIGNAL TRAILER

General:

Empty Weight: 1,610 lbs. per signal trailer not including batteries, controller parts, solar panels or lights

Completed Weight: PTS trailer shall have a minimum weight of 2,900 lbs. in the Completed, deployment ready form

Overall Dimensions: 297”L x 85 ”W x 90”H

Hitch: 2-5/16” ball coupler, adjustable, galvanized (3” pintle eye available)

Safety Chains: (2) 5/16” with positive latch hooks

Notes: Hitch and safety chains comply with SAEJ684

Running Gear:

Axles: 3,500 lb Torflex Suspension w/EZ Lube spindles

Brakes: Electric system

Tires: Size: ST205/75R15 Ply: Load Range C

Wheels: Size: 15” x 5” Bolt Circle: 5 on 5 1/2” Type: Black OEM

Structural:

Frame Rails: MatT: 3/16” formed and tubular steel frame

Mast Support Post Mast Boom: Mat'l: Tubular Steel

Fenders: MatT: Combined formed and tubular steel structure

Battery Box: MatT: Tubular steel structure with galvanized extension

Control Box: MatT: Galvannealed, weld on style

Solar panel frames: MatT: Formed with positive hold open, NEMA 4 weatherproof enclosure

Solar panel frame brackets: Removable and lockable, able to accommodate

Electrical:

Type GPT jacketed harness with color coded wires and molded plugs, 7 prong plug

Accessories:

Removable or lockable self-storing tongue. Each trailer shall be equipped with a lifting ring that is integral to the PTS trailer and structurally sufficient to facilitate the lifting and placing of a fully equipped PTS trailer.

(4) 7,000 lb stabilizer jacks with 2-1/2" square pin positioned telescoping galvanized drop leg with zinc plated 6" x 8" steel foot plate. Vertically installed on 76 V" front to rear dimension and 74" side to side dimension. Lifting ring to facilitate lifting and placing the PTS trailer as required.

Signal Head:

The portable traffic signal (PTS) trailer shall be capable of accommodating a vertical upright and a horizontal mast arm. The overhead signal shall provide a minimum clearance of 17ft.-6in. measured from the bottom of the signal head to the road surface.

Wind load:

The trailer and all mounted equipment shall conform to the wind load requirements (80 mph minimum) as described in AASHTO Standard Specifications for Highway Signs, Luminaries and Traffic Signals 4th edition. Conformance to the AASHTO Standard Specification shall be verified by a reputable independent source. A certificate of compliance endorsed by a Registered Professional Engineer with the supporting Engineering Study shall be made available upon request. No additional ballast shall be used to meet the requirements of the AASHTO Standard Specification.

Transport:

PTS trailers shall be manufactured to accommodate the option of transporting two signal trailers with one vehicle. The PTS trailer shall be equipped in such a manner as to provide legal transport on the public highway system. Each signal trailer shall be equipped with four stabilizing/leveling jacks, one on each corner of the trailer.

Signal Head/Display Requirements:

The PTS shall meet the physical display and operational requirements of conventional traffic signals as specified in Part IV of the Manual on Uniform Traffic Control Devices (MUTCD). Signal Heads shall be cast aluminum and have three 12-inch LED indications, conforming to ITE Specification "Vehicle Traffic Control Signal Heads" and NEMA Standards TS1 and TS2. Signal heads shall be equipped with visors which extend beyond

the signal head a minimum of 10 inches. The signal heads shall have the ability to accommodate back plates and rotate horizontally 180°. The overhead signal shall have a minimum clearance height of 17 ft. measured from the bottom of the green indication to the road surface. The lower signal head shall be mounted to a vertical upright at a minimum height of 8 ft. measured from the bottom of the green indication to the road surface.

Power Requirements:

Each PTS Trailer shall be equipped with batteries sufficient to operate the signal for a minimum of 30 days @ 72° without charging. The charging system shall include 440 watts (minimum) of solar collection capability and an onboard battery charger capable of being used with a 120V AC power source. The system shall also include an onboard monitoring system capable of regulating and providing a visual display of the battery voltage and solar input.

Lift System:

Each PTS Trailer shall be equipped with a hydraulic lift system sufficient to raise and lower the vertical upright and horizontal mast arm to and from the operating position.

The Lift System shall not utilize cables in any manner to raise or lower the vertical upright and horizontal mast arm.

Operational Requirements:

Each PTS shall be equipped with an operating system having the following capabilities: All PTS trailers shall be equipped with a malfunction management unit (MMU) conforming to NEMA performance standards, a controller capable of operating the PTS system in a fixed time, traffic actuated or manual control mode. Fixed time mode operation option must include the ability to provide a minimum of five automatic signal timing changes within a 24-hour period. The operating system shall have the ability to control a minimum of 7 traffic phases. Programmable green times from 1 second to 999 seconds and red times from 1 second to 999 seconds in 1 second increments shall be required. The ability to facilitate minimum / maximum green time programming in the traffic actuation mode in a manner that will extend the green times in predetermined programmable segments as required. The operating system shall have the capability of facilitating standby modes of red, red flash and yellow flash mode. The operating system shall be capable of facilitating traffic actuation with true presence capability.

The operating system shall have the capability of interfacing with a remote monitoring system (RMS) capable of reporting signal location, battery voltage / batter history and system default. The RMS shall include a password protected web site viewable from any computer with internet capability. In the event of a system default the RMS shall provide specific information concerning the cause of the system default (i.e....red lamp on signal number 1). The RMS shall be equipped with a mechanism capable of immediately contacting a minimum of three previously designated individuals via text messaging and/or email upon a default. The running program operating the PTS system shall be available and viewable through the RMS website at all times. The RMS shall maintain a

history of the operating system in each signal including operating hours and events and the location of the PTS trailer.

The operating system shall have an integrated mechanism capable of recording system malfunction including date and time of system failure. This information shall be available in a printable format. The operating system shall be capable of accommodating a pre-emption system with optical activation which provides a priority green phase in the direction of appropriately equipped approaching emergency vehicles. The operating system shall have the capability to allow the PTS to be connected to and controlled by a standard NEMA controller. The operating system shall be equipped with diagnostic capabilities in the event of a system default. The system shall have the capability of identifying the default in a manner that will expedite the return to full operational mode.

Actuation Requirements:

The PTS systems shall be available with traffic actuation capabilities. Acceptable traffic actuation systems include microwave motion sensors, video detection and in-pavement loops. Acceptable PTS systems shall have the capability of being operated with both a motion and true presence actuation system.

Communication Requirements:

PTS systems operated in the fixed time mode may be operated independently free of hardwire or radio communication. However, the PTS must conform to the default requirements. PTS systems operated in the actuation or manual mode shall communicate via hardwire connection or wireless radio link communication. If the hardwire communication is utilized, the communication cable shall be deployed in a manner that will not intrude in the direct work area of the project or obstruct vehicular and pedestrian traffic. If the radio link communication option is utilized, the radio units shall maintain the communication link at a minimum distance of 1 mile with a clear line of sight maintained between PTS units. The radio system shall conform to the applicable Federal Communication Commission requirements and all applicable state and local requirements.

Default Requirements:

PTS systems shall have the capability of reverting to a red, red flash or yellow flash mode upon system default. The default setting shall be red flash unless otherwise stated in the project specifications or dictated by the project engineer. Upon default, the PTS system shall immediately contact a minimum of three responsible individuals via the RMS as described in the Operational Requirements section of this specification.

Doppler Detection System:

The Contractor shall provide a doppler radar detection system to detect vehicles. Specifications and recommended operating conditions for the device shall include the following:

Vcc	5V to 24V (30V MAX)
Icc@12VDC	10mA (0.12 Watts typical)
Output Power	20 dBm

Radar fcenter	24.125GHz or 24.200 GHz
Operating °F(°C)	-40 (-40) min to +185 (85) max
Pickup Distance	(2000+ feet) (600+ m) typical in full range mode
Beam Angle	9°x18°
Beam Polarization	Linear
Serial Ports	2x RS232, Optional Bluetooth
Trigger Outputs	2x 500mA protected outputs
FCC ID	TIADR600
CE Mark, ICC	Yes, Yes

BASIS OF PAYMENT

The lump sum price bid for Item 816.81 Temporary Traffic Control Signal, shall constitute full compensation for all labor, materials, and equipment necessary or incidental to the installation of a complete traffic control signal system with doppler radar detection functioning as specified and as shown on the plans.

**ITEM 859.1 REFLECTORIZED DRUMS WITH SEQUENTIAL DAY
FLASHING WARNING LIGHTS**

DESCRIPTION

Work under this Section consists of furnishing, installing, maintaining in proper operating conditions, and removing reflectORIZED drums, and any necessary ballast, equipped with sequential flashing warning lights.

MATERIALS

ReflectORIZED drums shall be listed on the MassDOT Qualified Traffic Control Equipment List. Reflective sheeting on drums shall meet or exceed ASTM D4956 Type VIII. All drums shall be maintained in a satisfactory manner including the removal of oils, dirt, and debris that may cause reduced retroreflectivity.

The Contractor shall use one of the following sequential flashing warning light systems unless otherwise approved by the Engineer:

Empco-Lite LWCS D.

pi-Lit® Sequential Barricade-Style Lamp; or

Unipart Dorman SynchroGUIDE.

Sequential flashing warning lights shall be secured to reflectORIZED drums per the light manufacturer’s specifications.

CONSTRUCTION METHODS

The first ten drums in any merging or shifting taper as designated in the Temporary Traffic Control Plan shall be equipped with sequential flashing warning lights. These lights shall be operating, at a minimum, between dusk and dawn when the taper is deployed.

The successive flashing of the sequential warning lights shall occur from the upstream end of the merging or shifting taper to the downstream end of the taper in order to identify the desired vehicle path. Each warning light in the sequence shall be flashed at a rate of not less than 55, nor more than 75 times per minute.

Warning lights shall be powered off when drums are not deployed in a taper.

METHOD OF MEASUREMENT

A group of ten (10) reflectorized drums with sequential flashing warning lights is considered one (1) unit and will be measured by the day. Each period of up to 24 hours during which this unit is in use will be measured as one day regardless of the number of times that the drums are positioned, repositioned, removed, or returned to service.

BASIS OF PAYMENT

Reflectorized Drums with Sequential Flashing Warning Lights will be paid for at the contract unit price per day, which shall include full compensation for furnishing, positioning, repositioning, and removing the group of ten (10) drums as directed by the Engineer.

ITEM 905. 4000 PSI, 3/8 INCH, 660 CEMENT CONCRETE CUBIC YARD

All work shall conform to the relevant provisions of Section 901 of the Standard Specifications and the following:

- a) The work to be done under this Item shall consist of replacing concrete removed in deteriorated or spalled areas for deck or substructure repairs greater than 1½" deep.
- b) The work under this item consists of furnishing and placing 4,000 PSI, 3/8 IN., 660 Cement Concrete Masonry to repair bridge decks, superstructures, and substructures, as directed.
- c) The Contractor shall have the approval of the Engineer certifying that the existing concrete has been removed to the required limits and that adequate surface preparation has been achieved before any concrete is placed.
- d) Bonding Agent: Immediately prior to all concrete pours, the Contractor will apply an bonding agent from the MassDOT Qualified Construction Materials List to the excavated surfaces of the concrete. The bonding agent will be worked into the surfaces with stiff brushes or brooms in accordance with Sub-Section 901.68C. Bonding Agent will be considered incidental to this Item. Products to be used for this item shall be approved by the Engineer before the Contractor begins his operations. If the bonding compound prematurely hardens, additional bonding compound shall be applied, if allowed by the

bonding compound manufacturer or the hardened bonding compound shall be addressed as per the bonding compound manufacturer's recommendations.

Any steel that is unsuitable for further use through no fault of the Contractor shall be replaced under Item 910.1 Steel Reinforcement for Structures - Epoxy Coated. All reinforcing steel that is loose shall be tied tightly together using wire ties.

Concrete removal and satisfactory disposal of the deteriorated and spalled concrete of the substructure and superstructure will be paid for under Item 127.12 Reinforced Concrete

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

The work under Item 905. shall be measured and paid for at the Contract unit price per cubic yard which payment shall be considered full compensation for all labor, materials, equipment, and incidentals necessary to satisfactorily complete the work.

ITEM 908.

CEMENT FOR POINTING

BAG

Work under this Item includes the cleaning out of defective mortar joints in the exposed surfaces of the existing portions of stone and granite block abutments and walls and the pointing of the joints with new cement mortar. Also included is the removal of existing vegetation and filling of voids left by the excavation of deteriorated stonework and rubble with new cement mortar as directed by the Engineer.

MATERIALS

The cement mortar shall meet the requirements of Subsection M4.02.15.

CONSTRUCTION METHODS

The general limits of masonry repair areas are noted on the Plans. The Contractor shall be responsible for verifying the areas and shall mark the areas they deem in need of pointing to be inspected and verified by the Engineer. The Engineer may add or subtract areas to be repaired based on a review of the areas identified by the Contractor.

All defective stone masonry joints shall be chipped out to a minimum depth of two inches by means of pneumatic tools. The joint shall be thoroughly cleaned of all loose mortar, dust, dirt, and vegetation with high pressure air and water blast and flushed clean.

All cleaned joints shall be inspected and approved by the Engineer prior to the application of cement mortar. The mortar shall be driven to the back of the excavated joint and cut flush with the masonry face. Only enough mortar shall be mixed that can be effectively used to repoint the prepared joints and voids. As directed by the Engineer, peastone will be added to the mortar mix and chinking stones in the larger voids.

Pointing shall not be done in freezing weather nor when the stone contains frost. The work shall not be performed when the ambient air temperatures air below 40° F, when the stones contain frost or when the temperature is expected to drop below 40° F within 36 hours of completion of

the day's work. Joints shall be thoroughly cleaned of any loose mortar, dirt and other foreign material prior to pointing. The joints are to be thoroughly rinsed/wet with potable water and all excess (puddle) water shall be removed immediately preceding the pointing operation. Excess water may be removed with rags, by compressed air or by other suitable means approved by the Engineer. The mortar shall be well driven into the joints and finished with an approved pointing tool. Joints shall be pointed flush with the face line of the wall, and slightly pitched to direct water out of the joint. The work shall be kept wet while pointing is performed; and in hot or dry weather, the pointed masonry shall be protected from the sun and kept wet for a period of at least three (3) days after completion.

The Contractor shall be responsible for maintaining the stability of the masonry walls throughout the work.

METHOD OF MEASUREMENT AND BASIS FOR PAYMENT

The work under this Item will be paid for at the contract unit price per bag of cement for pointing used in completing the work as directed by the Engineer. This price shall include full compensation for all labor, materials, forms and equipment necessary to complete the work. The net weight of each bag of cement shall be 94 pounds.

ITEM 909.2 CEMENTITIOUS MORTAR FOR PATCHING SQUARE FOOT

All work shall conform to the relevant Provisions of Section 901 of the Standard Specification and the following:

The work under this Item consists of furnishing and placing a polymer-modified, cementitious, 2-component, fast-setting, trowel grade patching mortar to patch vertical, horizontal and overhead surfaces on the existing structure in areas of spalled concrete, and as directed by the Engineer.

This Item does not include the repair of any horizontal or vertical spalls which exceed 1½ inches in depth. The repairs to those areas shall be made with 4000 PSI, 3/8 IN., 660 Cement Concrete as specified under Item 905.

MATERIAL

The polymer modified cementitious patching mortar shall be selected from the MassDOT Qualified Construction Materials List.

The Contractor shall furnish notarized certification that all materials conform to the above requirements. Only those products previously approved for the purpose intended herein and listed on the Qualified Construction Materials List maintained by the MassDOT Research and Materials Section may be used.

No Materials will be ordered or used before the approval of the Engineer.

The Contractor shall follow the manufacturer's written instructions regarding storage, mixing, application, finishing and curing.

SURFACE PREPARATION

Concrete at the edges of all areas to be patched using Cementitious Mortar for Patching shall be removed to a minimum depth of half (1/2) inch prior to the application of the mortar.

Areas to be patched must be clean and sound. All loose and disintegrated concrete shall be removed by means of abrasive blasting, or an equivalent method, to a depth where sound concrete is exposed. The Contractor shall remove all deteriorated and spalled areas as designated by the Engineer. All costs to remove the deteriorated and spalled concrete shall be compensated for under Item 127.12.

The Contractor shall have the approval of the Engineer certifying that all spalled and deteriorated concrete has been removed prior to patching deteriorated areas.

MIXING

Mix manually or mechanically. The mortar shall be prepared in accordance with the Manufacturer's instructions.

APPLICATION METHODS

At the time of application, surfaces should be damp (saturated surface dry) with no glistening water. Mortar must be worked into the substrate filling all pores and voids. Force the material against the edge of the repair, working towards the center. After filling, consolidate, then screed.

The maximum thickness of application in one pass shall be 1". If the depth of patch exceeds 1", the mortar shall be placed in two passes of approximate equal thickness. Before the first pass has achieved an initial set, the surface shall be prepared for the second pass by scratching with a trowel to form a grid of deformation on the surface.

Prime and work the mix into the substrate, filling all pores and voids. Avoid puddling of the primer on horizontal substrates.

CURING

Use of fine mist spray of water, wet burlap, or non-solvent approved curing compound if ambient conditions might cause premature surface drying, i.e., high temperature, low humidity, strong winds. If necessary, protect newly applied mortar from rain. To prevent freezing, the Contractor shall cover the application area with insulating material, to the satisfaction of the Engineer.

CLEANING

Clean tools as directed by manufacturer.

Leave finished work and work area in neat, clean condition without evidence of spillovers onto adjacent areas.

DELIVERY, STORAGE, AND HANDLING

All material must be delivered in original, unopened containers with the manufacturer's name, labels, product identification, and batch numbers. Damaged material must be removed from the site immediately.

Store all materials off the ground and protect from rain, freezing or excessive heat until ready for use.

Condition the specified product as recommended by the manufacturer.

PROTECTION FROM ADVERSE WEATHER

Apply material in accordance with manufacturer's recommendations.

Suitable precautions shall be taken to thoroughly protect the concrete from any damage by weather conditions or otherwise during and after placing.

PROTECTION OF PIPES AND CONDUITS

The Contractor shall care for and protect from injury all pipes, wires and conduits encountered in the work by furnishing and maintaining suitable supports, including steel bars, where directed on the bridge during construction.

MANUFACTURER'S FIELD REPRESENTATIVE

The Contractor shall arrange with the materials manufacturer or distributor to have the services of a competent field representative at the work site prior to any mixing of components to instruct the work crews in the proper mixing and application procedures. The field representative shall remain at the job site after work commences and continue to instruct until the representative and the Contractor, Inspector and/or Engineer are satisfied that the crew has mastered the technique of installing the system successfully. The representative shall make periodic visits to the project as the work progresses and shall confer on each visit with the Contractor, Inspector and/or Engineer.

The Manufacturer's field representative must be fully qualified to perform the work and shall be subject to the approval of the Engineer.

The Contractor shall be completely responsible for the expense of the services of the required field representative and the bid contract price shall be full compensation for all costs in connection therewith.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

The measurement payment for Item 909.2 will be per square foot of patch area, complete in place and accepted by the Engineer. Item 909.2 Cementitious Mortar for Patching will be paid for at the Contract Unit Price per square foot of cementitious mortar installed, which price shall include full compensation for all labor, materials, equipment, and all other incidentals necessary to perform the work as described above to the satisfaction of the Engineer.

ITEM 983.12**CONCRETE GROUT FILLED FABRIC BAGS****CUBIC FOOT**

Work to be done under this Item shall conform to the relevant provisions of the Standard Specifications and the following.

This work shall consist of the furnishing and underwater installation of custom fitted fabric tubes or bags, and pumping concrete grout into these fabric tubes or bags at the specified locations and in accordance with the lines, grades, design and dimensions shown on the contract drawings and as specified herein, and as directed by the Engineer.

Debris removal necessary to allow installation of the bags shall be included in this item. This removal shall include any debris found within the void area under the footing which would interfere or prevent specified installation of bag, grout or fill material.

MATERIALS

Fabric Forms: The fabric forms shall be composed of synthetic yarns formed into a woven fabric. Yarns used in the manufacture of the fabric shall be composed of at least 85% by weight of polyamide. Forms shall be woven with a minimum of 50% textured yarns (by weight) to improve adhesion to fine aggregate concrete and to improve filtration. They shall be formed into a network such that the yarns retain dimensional stability relative to each other, including selvages. Each layer of fabric shall conform to the physical, mechanical and hydraulic requirements shown below. The fabric forms shall be free of defects or flaws which significantly affect their physical, mechanical, or hydraulic properties.

Fabric form material shall consist of two layers of woven fabric sewn together. When filled with fine aggregate concrete they shall form a concrete armor unit with finished average unit dimensions as shown on the plans or as directed by the Engineer.

Specification property requirements – fabric forms^{1, 2}:

Property	Test Method	Units	Values
Physical:			
Composed of Yarns -Machine -Cross			Polyamide (Nylon) Polyamide (Nylon)
Mass Per Unit Area (double-layer)	ASTM D 5261	g/m ²	470
Thickness	ASTM D 5199	mm	0.7
Mill Width		m	1.93
Mechanical:			
Wide-Width Strip Tensile Strength -Machine -Cross	ASTM D 4595	kN/m kN/m	33.2 24.5
Elongation at Break -Machine -Cross	ASTM D 4595	% %	20 30
Trapezoidal Tear Strength -Machine -Cross	ASTM D 4533	N N	800 510
Hydraulic:			
Apparent Opening Size (AOS)	ASTM D 4751	mm	0.250
Flow Rate	ASTM D 4491	l/min/m ²	2035

Notes:

1. Conformance of fabric forms to specification property requirements shall be based on ASTM D 4759, “Practice for Determining the Special Performance of Geotextiles.”

2. All numerical values represent minimum average roll values (i.e., average of test results from any sample roll in a lot shall meet or exceed the minimum values). Lots shall be sampled according to ASTM D 43254, “Practice for Sampling of Geosynthetics for Testing.”

Mill width of fabric rolls shall be a minimum of 6 ft. Each selvage edge of the fabric shall be reinforced for a width of 2 in. by adding a minimum of 15 warp yarns to the selvage construction. Mill width rolls shall be cut to the length required, and two layers of fabric shall be

joined, top layer to bottom layer, by means of sewing thread to form the required unit dimensions.

Self-sealing filling valves, suitable for use with fine aggregate concrete, shall be installed at predetermined locations. A minimum of two valves shall be provided for bags more than 20 ft long.

All Seams sewn in the factory shall be not less than 15.7 kN/m when tested in accordance with ASTM D 4884. All sewn seams shall be made using a Type 401 double lock stitch or two rows of single-lock stitch. All double-lock stitches shall be sewn simultaneously and be parallel to each other, spaced between $\frac{1}{4}$ in to $\frac{3}{4}$ in apart. Each row of stitching shall consist of 4 to 7 stitches per inch. Thread used for seaming shall exhibit ultraviolet, chemical and biological durability.

The Contractor shall submit, to the Engineer, a manufacturer's certification that the supplied fabric forms meet the criteria of these Specifications, as measured in full accordance with the test methods and the standards referenced herein. The certifications shall include the following information about each fabric form delivered:

- Manufacturer's name and current address;
- Full product name;
- Style and product code number;
- Form number(s);
- Polymer types; and
- Manufacturer's certification statement.

Concrete grout shall consist of a mixture of Portland cement, fine aggregate (sand) and water, so proportioned and mixed as to provide a pump able grout. Grout may be extended with $\frac{3}{8}$ " as recommended by manufacturer. Grout shall contain an anti-washout admixture designed for underwater applications to produce grout that becomes fluid and flowable when sheared during pumping operations but become dense and highly viscous at rest. The mix shall exhibit a compressive strength of 3,500 psi at 28 days. The Contractor shall submit in writing to the Engineer a mix design showing the mix proportions and results of two test breaks (AASHTO C109), performed by an independent testing lab.

CONSTRUCTION DETAILS

Prior to commencing work, the Contractor shall submit a construction procedure and equipment list to the Engineer for their approval. No work shall begin until this approval is received.

Before placement of the fabric bags, all loose material and debris shall be removed from the location of work under the structure and properly disposed of by the Contractor. Material removed shall be disposed of at a location acceptable to the Engineer, off the right-of-way.

Installation of grout filled bags shall be performed within an area enclosed by floating silt fence.

The grout filled bags shall be placed where shown on the plans or as directed by the Engineer.

The Contractor shall conduct the grout filling operation in a manner that will prevent the possibility of discharge of grout or cement into the water. Grout injection shall be performed in a manner that will avoid rupture of the fabric forms or the formation of cold joints. A cold joint is defined as one in which the pumping of the fine aggregate concrete into a given form is discontinued or interrupted for an interval of forty-five or more minutes.

The grout filling operation shall be conducted in a manner to ensure that the undermined sections of curtain wall are completely filled.

METHOD OF MEASUREMENT

Concrete Grout Filled Fabric Backs will be measured as the number of cubic feet of concrete grout actually placed into production and used to fill the fabric bags, complete in place, and approved by the Engineer.

BASIS OF PAYMENT

The work under this Item will be paid for at the contract unit price per cubic foot, which price shall include full compensation for all labor, materials, and equipment necessary to complete the work.

Payment will be made for the cubic feet of grout introduced into the pumping system even though some of it will be used for delivery purposes and not necessarily incorporated in the work. Stoppages attributed to the Contractor shall be the Contractor's responsibility and the cost of the material required to refill the discharge system shall be borne by the Contractor.

ITEM 991.11

CONTROL OF WATER - STRUCTURE NO. U-02-069

LUMP SUM

ITEM 991.12

CONTROL OF WATER - STRUCTURE NO. U-02-070

LUMP SUM

The work under this item shall conform to the relevant provisions of Subsection 140.60 of the Standard Specifications, the plans, and the following:

The work to be done under this item consists of all work required for the control of water to perform abutment and wingwall repairs as shown on the plans, as determined by the investigation to be performed under Item 685.1, and directed by the Engineer. The work shall include the furnishing, installing, maintenance and removal that may be required in performing the work for the sand bag dike and the water diversion system.

Work under this Item also includes pumping operations, installation of sandbags, filter fabrics, weirs, stone, and all other means to collect, settle, and discharge water back into the waterways during construction. As part of the work under this item, it is the responsibility of the Contractor to determine the need and extent of dewatering required.

Pumping from the interior of any enclosure shall be done in such a manner to preclude the possibility of transporting by the water any part of the repair materials being placed.

During dewatering operations, water which is pumped from the interior of an enclosure or any other area, shall be discharged into a dewatering basin designed to cleanse the water before reentering the river or drainage system. This system shall be sized and designed by the Contractor at a location determined by the Contractor. The operations of Control of Water shall not cause the accumulation of siltation nor have any adverse effect to the water or the environment. Dewatering may only occur in front a single abutment at a time. At no time shall flow be restricted due to both sides of the waterway being diverted.

The Contractor is cautioned that flow rates can increase substantially during and after storm events. The flow diversion shall include contingencies for accommodating the increased flow during such events. At a minimum, the flow diversion and bypass pumping operations shall be designed to accommodate a 2-year storm event with a flow rate of 160 and 34 cubic feet per second for Bridge No. U-02-069 and U-02-070, respectively. In the event of a storm exceeding this capacity, the contractor shall be responsible for stabilizing the work zone and allowing the excess flow to overflow the diversion/bypass mechanisms and flow through the work zone.

The Contractor shall submit for approval the drawings and calculations of the proposed water diversion system, stamped by a Professional Engineer registered in the Commonwealth of Massachusetts. After removal of the water diversion system the Contractor shall restore the affected area to its natural condition in a manner subject to the Engineer's approval.

BASIS OF PAYMENT

Payment for work described under this item shall be at the contract Lump Sum price for Control of Water – Structure No. U-02-069, or U-02-070 which price shall include the furnishing, installing and removal of the dewatering basin, sand bag dike, pumping, maintenance, removal, including full compensation for all labor, tools, equipment, materials and appurtenance necessary and incidental to complete the work described under this Item.

ITEM 991.13

CONTROL OF WATER - BRIDGE NO. U-02-038

LUMP SUM

The work under this item shall conform to the relevant provisions of Subsection 140.60 of the Standard Specifications, the plans, and the following:

The work to be done under this item consists of all work required for the control of water in areas where wingwall removal and construction, installation of embankment protection and concrete repair as shown on the plans, as directed by the Engineer. The work shall include the furnishing, installing, maintenance and removal that may be required in performing the work for the cofferdam, sand bag dike and the water diversion system.

Work under this Item also includes pumping operations, installation of earth berms, bulkheads, HDPE pipes, sandbags, filter fabrics, weirs, stone, and all other means to collect, settle, and discharge water back into the waterways during construction. As part of the work under this

item, it is the responsibility of the Contractor to determine the need and extent of dewatering required.

Pumping from the interior of any enclosure shall be done in such a manner to preclude the possibility of transporting by the water any part of the repair materials being placed.

The operations of Control of Water shall not cause the accumulation of siltation nor have any adverse effect to the water or the environment.

The Contractor is cautioned that flow rates in the brook can increase substantially during and after storm events. The flow diversion and bypass pumping operations shall include contingencies for accommodating the increased flow during such events. At a minimum, the flow diversion and bypass pumping operations shall be designed to accommodate a 2-year storm event with a flow rate of 37 cubic feet per second. In the event of a storm exceeding this capacity, the contractor shall be responsible for stabilizing the work zone and allowing the excess flow to overflow the diversion/bypass mechanisms and flow through the work zone.

SUBMITTALS

Prior to the commencement of any work at the site, the Contractor shall submit to the Engineer for review and approval, a detailed plan for water control, including the construction of the water control system, and a sequence of wingwall construction and repair works with a timetable and details specific to the construction. The submittals shall include working drawings and calculations detailing the methods and materials proposed to account for all anticipated loads and construction conditions necessary to permit the work while maintaining a safe work area and protecting property from damage.

The Water Control Plan shall include a Sedimentation and Erosion Control Plan, Water Flow Diversion and Containment Plan. The plans shall be adequate in detail to define specifics regarding materials, sizes, connections and incidental items associated with the work. The furnishing of such plans shall not serve to relieve the Contractor's responsibility for the safety of the work or his responsibility for the successful completion of the project. The proposed plans and calculations submitted shall be designed and stamped by a Professional Engineer Registered in the Commonwealth of Massachusetts. The Contractor's attention is directed to the Order of Conditions included herein, for additional information on submittal requirements.

The Contractor shall make his/her own evaluation of existing conditions and water flow, the effects of his proposed temporary works and construction methods and shall provide design for all loads and construction conditions necessary to permit construction of the specified structures while maintaining public safety, and protecting completed work and all third party property from damage due to construction operations. The Contractor shall also provide a description and details of the intended methods to prevent debris, including airborne particles, from entering the river during the entire project duration.

Sedimentation and Erosion Control Plan: The Contractor shall submit to the Engineer, plans and details of the intended sedimentation treatment basin system that will be used along with dewatering techniques, and its location at the bridge site. All discharge resulting from dewatering activities shall be directed to temporary sedimentation treatment basins at locations approved by the Engineer. At no time shall said discharge be directly released into the river, watershed or

wetland basins. The proposed plan shall include methods and equipment necessary to discharge water from the sedimentation treatment basins. Sedimentation treatment basins shall be sized appropriately to adequately dewater from the proposed work zone while allowing sufficient time for sediments to settle out of the water, and with a depth such that a minimum of 18 inches of freeboard is maintained throughout its use.

Water Flow Diversion and Containment Plan: The Contractor shall submit plans and details along with a complete description showing the proposed cofferdam system for control of water and dewatering plan to the Engineer for his approval prior to the start of the work. The proposed plan shall include methods and equipment necessary to perform the work and shall include water discharge methods and equipment to bring water from the work zone to sedimentation treatment basin.

CONSTRUCTION METHODS

The work to be done under this heading shall include placing and removing the control of water structures at locations shown on the plans. This work shall include dewatering within the cofferdams and as needed to conduct the work. The dewatering discharge shall be directed to a temporary sedimentation treatment basin. Where sand bags are used, the bags shall not decay nor rip or tear during the installation, its service life within the waterway, or during the cofferdam removal process. The Contractor shall not disturb the stream bed prior to placing the cofferdams in order to avoid migration of silts and sands further downstream. The Contractor is responsible for researching the seasonal flow characteristics of the Aldrich Brook to determine appropriate cofferdam details.

Measures to control the discharge of sediment or pollutants into the water resource areas shall include, but not be limited to the following:

1. Site construction areas outside the buffer zones and on relatively flat ground.
2. Schedule the work within the resource areas to avoid periods of anticipated high water (i.e. spring floods) and inclement weather.
3. Management of construction operations involving hazardous materials, such as refueling and maintenance of equipment within the resource areas.
4. Installation and continuous maintenance of water control measures throughout the project.
5. Treatment of all discharge resulting from dewatering activities through a sedimentation/detention basin to control turbidity. At no time shall the discharge from dewatering activities be directly released into a resource area.

Control of water structures shall be located within the limits shown on the Contract Drawings. Locations of sedimentation/retention basins will be determined by the Contractor based on the selected methods of construction. Placement of the basins shall be in an upland area that is within the existing right of way.

All dewatering and related water control work shall be conducted in such a manner as to prevent siltation or contamination of the waterway. At a minimum, the settling basin shall be constructed of an earthen berm lined with geotextile fabric and surrounded by staked hay bales. The basin shall meet or exceed the following criteria:

1. 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 river and the need to perform the footing work in the dry.
2. 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.
3. The Contractor shall not allow any sediment within the settling basin to accumulate to a depth of greater than 12 inches at any point in the basin, nor shall the water level be allowed to rise to a height of more than 24 inches.
4. The sedimentation treatment basin shall be designed with a minimum of 18 inches of freeboard, which must be maintained at all times.
5. The Contractor shall inspect the settling basin(s) at least twice daily when in operation.
6. Damages shall be repaired immediately.
7. The settling basin outlet shall be cleaned daily.
8. The sediments within the settling basin shall be disposed of as approved by the Engineer. Upon completion of water control, the materials and equipment used to maintain the cofferdam(s) and sedimentation treatment basin(s) shall become the property of the Contractor and shall be removed to the limits shown on the Contract Drawings by the Contractor from the site. The area affected shall be restored to its natural condition in a manner subject to the Engineer's approval.

BASIS OF PAYMENT

Control of Water — Bridge No. U-02-038 will be paid for at the Contract lump sum price, which shall include, but not be limited to, the design of the water control systems, as well as all equipment, materials and labor needed for the installation, maintenance, removal, disposal of the materials used for water control, and disposal of any siltation materials caused by the pumping operation. All costs required for permits, transport, special handling, inspection, testing, etc., shall be included in the Contract bid price, which shall also include all labor, materials, equipment, tools, and incidental costs required to complete the work.

<u>ITEM 994.01</u>	<u>TEMPORARY PROTECTIVE SHIELDING</u> <u>BRIDGE NO. U-02-038</u>	<u>LUMP SUM</u>
<u>ITEM 994.02</u>	<u>TEMPORARY PROTECTIVE SHIELDING</u> <u>BRIDGE NO. U-02-069</u>	<u>LUMP SUM</u>
<u>ITEM 994.03</u>	<u>TEMPORARY PROTECTIVE SHIELDING</u> <u>BRIDGE NO. U-02-070</u>	<u>LUMP SUM</u>

The work under this item shall consist of furnishing all equipment, materials and labor to provide, install, access, maintain and subsequently remove temporary working platform with protective shielding system for the guardrail installation, concrete removal and repair work. The shield shall protect the river environment, utilities, motorists, boats, and people from repair

construction debris. It shall also be capable of serving as a full protection barrier for construction personnel.

The temporary working platform with protective shield shall consist of platform hangers, timber plank system, scaffolding, debris net system or a combination of these or other systems that will effectively protect the water and ground surfaces below from construction debris during construction activities. It shall be the Contractor's responsibility to design the Temporary Working Platform with Protective Shield System for this project. Barrier shall be designed as a combined personnel/debris shield. The materials and installation shall conform to CFT 1926.500 (OSHA Rules) and with ANSI A.10.11, "American National Standard for Construction and Demolition Operations – Personnel and Debris Nets. The combined-use nets shall have a minimum working rating of not less than 13,560 Nm (10,000 ft-lb). The Contractor shall determine the size, weight and height-of-fall of anticipated debris (including sandy debris). The debris netting (if utilized) shall have a mesh of the size and strength sufficient to contain the expected debris (including sandy debris) without penetration when properly supported by the personnel net. The debris net shall not compromise the design, construction or performance of personnel shields. No re-used materials will be permitted.

The temporary working platform shall conform to the following:

1. Work platforms shall be supplied and positioned or erected (as necessary) to provide adequate and safe access to the work.
2. The Temporary Protective Shield is intended to act as a barrier against construction materials falling into the water or on land below the work area. No concrete repair and removal operations shall commence in areas where shielding is required until the shielding is installed to the satisfaction of the Engineer.
3. The barrier shall be erected at a level below the construction area so as not to exceed the shield rating under the shield design load.
4. The care, maintenance and storage of barriers shall be in accordance with the manufacturer's recommendations. Due attention shall be given to factors affecting net life and any damage repaired before work continues. Damage noted between weekly inspections will be repaired before work continues. Nets shall be inspected weekly. Nets shall be tested immediately following installation, relocation or major repair and when left in one location, at six-month intervals in accordance with ANSI A.10.11 Part 9.
5. Nets shall not carry more than 5 psf of ice, snow or other weather-related material. Debris shall be removed daily at a minimum, or more often as needed, to prevent potential overload of shielding.
6. Protective shield shall be designed for the anticipated weight of all material to be supported, but not less than a live load of 100 psf. The allowable design stresses shall be in accordance with (AASHTO) LRFD Bridge Design Specification. The design shall also include a complete description of the equipment and construction methods proposed.
7. Any material, debris, or equipment that accidentally fall to the ground or water below the structure shall be immediately retrieved and disposed of properly.
8. Temporary Protective Shield shall be installed or removed only on approval of the Engineer.
9. Temporary Protective Shield may be anchored to portions of the existing bridge structure exhibiting sound concrete. Drilling through existing rebar to anchor the shield will not be

permitted. The Contractor shall use a Pachometer or other suitable non-destructive means to locate existing rebar. Cost of locating rebar shall be included in the cost of Temporary Protective Shield.

All materials used in the working platform and shielding system shall become the property of the Contractor and shall be removed from the site at the completion of the Project.

All work shall be performed in accordance with the phase construction, as designated on the Plans.

The Contractor shall submit complete drawings of the proposed protective shield to the Engineer for review and approval. The Department will review the plan and evaluate the system as to its effect on the loading capacity of the structure. The Contractor shall also submit the design calculations for the system to be employed including an analysis of the load which will be added to the structure by the protective shield. The analysis shall be performed and stamped by a licensed Professional Engineer registered in the Commonwealth of Massachusetts. The analysis shall assure that the system will not induce a load on the bridge that will create an overstress condition or compromise the structural integrity of the bridge.

If netting is used, the Contractor shall submit netting Qualifications Tests per ANSI A 10.11. Part 8.2

BASIS OF PAYMENT

The accepted quantity of “Temporary Protective Shielding” will be paid for at the contract unit price bid per “Square Foot” as listed in the Proposal. The payment constitutes full compensation for all labor, materials, equipment, temporary access, repairs to shield, locating rebars, removal and disposal of protective shield and all other incidentals required to finish the work, complete and accepted by the Engineer.

APPENDIX A

- Prevailing Wage Rates



MAURA HEALEY
Governor

KIM DRISCOLL
Lt. Governor

THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

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: Uxbridge
Contract Number: **City/Town:** UXBRIDGE
Description of Work: Rehabilitation of 3 Small bridges in Uxbridge - Ironstone Rd, Carney St, and Aldrich St.
Job Location: 125 Ironstone Rd, 9 Carney St, 360 Aldrich St

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.

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
Construction						
(2 AXLE) DRIVER - EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	06/01/2024	\$39.95	\$15.07	\$18.67	\$0.00	\$73.69
	12/01/2024	\$39.95	\$15.07	\$20.17	\$0.00	\$75.19
	01/01/2025	\$39.95	\$15.57	\$20.17	\$0.00	\$75.69
	06/01/2025	\$40.95	\$15.57	\$20.17	\$0.00	\$76.69
	12/01/2025	\$40.95	\$15.57	\$21.78	\$0.00	\$78.30
	01/01/2026	\$40.95	\$16.17	\$21.78	\$0.00	\$78.90
	06/01/2026	\$41.95	\$16.17	\$21.78	\$0.00	\$79.90
	12/01/2026	\$41.95	\$16.17	\$23.52	\$0.00	\$81.64
	01/01/2027	\$41.95	\$16.77	\$23.52	\$0.00	\$82.24
(3 AXLE) DRIVER - EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	06/01/2024	\$40.02	\$15.07	\$18.67	\$0.00	\$73.76
	12/01/2024	\$40.02	\$15.07	\$20.17	\$0.00	\$75.26
	01/01/2025	\$40.02	\$15.57	\$20.17	\$0.00	\$75.76
	06/01/2025	\$41.02	\$15.57	\$20.17	\$0.00	\$76.76
	12/01/2025	\$41.02	\$15.57	\$21.78	\$0.00	\$78.37
	01/01/2026	\$41.02	\$16.17	\$21.78	\$0.00	\$78.97
	06/01/2026	\$42.02	\$16.17	\$21.78	\$0.00	\$79.97
	12/01/2026	\$42.02	\$16.17	\$23.52	\$0.00	\$81.71
	01/01/2027	\$42.02	\$16.77	\$23.52	\$0.00	\$82.31
(4 & 5 AXLE) DRIVER - EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	06/01/2024	\$40.14	\$15.07	\$18.67	\$0.00	\$73.88
	12/01/2024	\$40.14	\$15.07	\$20.17	\$0.00	\$75.38
	01/01/2025	\$40.14	\$15.57	\$20.17	\$0.00	\$75.88
	06/01/2025	\$41.14	\$15.57	\$20.17	\$0.00	\$76.88
	12/01/2025	\$41.14	\$15.57	\$21.78	\$0.00	\$78.49
	01/01/2026	\$41.14	\$16.17	\$21.78	\$0.00	\$79.09
	06/01/2026	\$42.14	\$16.17	\$21.78	\$0.00	\$80.09
	12/01/2026	\$42.14	\$16.17	\$23.52	\$0.00	\$81.83
	01/01/2027	\$42.14	\$16.77	\$23.52	\$0.00	\$82.43
ADS/SUBMERSIBLE PILOT <i>PILE DRIVER LOCAL 56 (ZONE 2)</i>	08/01/2020	\$103.05	\$9.40	\$23.12	\$0.00	\$135.57
For apprentice rates see "Apprentice- PILE DRIVER"						
AIR TRACK OPERATOR <i>LABORERS - ZONE 2</i>	06/01/2024	\$39.28	\$9.65	\$18.40	\$0.00	\$67.33
	12/01/2024	\$40.61	\$9.65	\$18.40	\$0.00	\$68.66
	06/01/2025	\$42.00	\$9.65	\$18.40	\$0.00	\$70.05
	12/01/2025	\$43.38	\$9.65	\$18.40	\$0.00	\$71.43
	06/01/2026	\$44.82	\$9.65	\$18.40	\$0.00	\$72.87
	12/01/2026	\$46.26	\$9.65	\$18.40	\$0.00	\$74.31
	06/01/2027	\$47.71	\$9.65	\$18.40	\$0.00	\$75.76
	12/01/2027	\$49.16	\$9.65	\$18.40	\$0.00	\$77.21
	06/01/2028	\$50.66	\$9.65	\$18.40	\$0.00	\$78.71
	12/01/2028	\$52.16	\$9.65	\$18.40	\$0.00	\$80.21
For apprentice rates see "Apprentice- LABORER"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
AIR TRACK OPERATOR (HEAVY & HIGHWAY) <i>LABORERS - ZONE 2 (HEAVY & HIGHWAY)</i>	06/01/2024	\$39.28	\$9.65	\$17.80	\$0.00	\$66.73
	12/01/2024	\$40.61	\$9.65	\$17.80	\$0.00	\$68.06
	06/01/2025	\$42.00	\$9.65	\$17.80	\$0.00	\$69.45
	12/01/2025	\$43.38	\$9.65	\$17.80	\$0.00	\$70.83
	06/01/2026	\$44.82	\$9.65	\$17.80	\$0.00	\$72.27
	12/01/2026	\$46.26	\$9.65	\$17.80	\$0.00	\$73.71
	For apprentice rates see "Apprentice- LABORER (Heavy and Highway)					
ASBESTOS WORKER (PIPES & TANKS) <i>HEAT & FROST INSULATORS LOCAL 6 (WORCESTER)</i>	06/01/2024	\$41.80	\$14.50	\$11.05	\$0.00	\$67.35
	12/01/2024	\$42.80	\$14.50	\$11.05	\$0.00	\$68.35
	06/01/2025	\$43.80	\$14.50	\$11.05	\$0.00	\$69.35
	12/01/2025	\$44.80	\$14.50	\$11.05	\$0.00	\$70.35
ASPHALT RAKER <i>LABORERS - ZONE 2</i>	06/01/2024	\$38.78	\$9.65	\$18.40	\$0.00	\$66.83
	12/01/2024	\$40.11	\$9.65	\$18.40	\$0.00	\$68.16
	06/01/2025	\$41.50	\$9.65	\$18.40	\$0.00	\$69.55
	12/01/2025	\$42.88	\$9.65	\$18.40	\$0.00	\$70.93
	06/01/2026	\$44.32	\$9.65	\$18.40	\$0.00	\$72.37
	12/01/2026	\$45.76	\$9.65	\$18.40	\$0.00	\$73.81
	06/01/2027	\$47.21	\$9.65	\$18.40	\$0.00	\$75.26
	12/01/2027	\$48.66	\$9.65	\$18.40	\$0.00	\$76.71
	06/01/2028	\$50.16	\$9.65	\$18.40	\$0.00	\$78.21
	12/01/2028	\$51.66	\$9.65	\$18.40	\$0.00	\$79.71
For apprentice rates see "Apprentice- LABORER"						
ASPHALT RAKER (HEAVY & HIGHWAY) <i>LABORERS - ZONE 2 (HEAVY & HIGHWAY)</i>	06/01/2024	\$38.78	\$9.65	\$17.80	\$0.00	\$66.23
	12/01/2024	\$40.11	\$9.65	\$17.80	\$0.00	\$67.56
	06/01/2025	\$41.50	\$9.65	\$17.80	\$0.00	\$68.95
	12/01/2025	\$42.88	\$9.65	\$17.80	\$0.00	\$70.33
	06/01/2026	\$44.32	\$9.65	\$17.80	\$0.00	\$71.77
	12/01/2026	\$45.76	\$9.65	\$17.80	\$0.00	\$73.21
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)						
ASPHALT/CONCRETE/CRUSHER PLANT-ON SITE <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2024	\$56.03	\$15.30	\$16.40	\$0.00	\$87.73
	12/01/2024	\$57.48	\$15.30	\$16.40	\$0.00	\$89.18
	06/01/2025	\$58.78	\$15.30	\$16.40	\$0.00	\$90.48
	12/01/2025	\$60.23	\$15.30	\$16.40	\$0.00	\$91.93
	06/01/2026	\$61.53	\$15.30	\$16.40	\$0.00	\$93.23
	12/01/2026	\$62.98	\$15.30	\$16.40	\$0.00	\$94.68
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
BACKHOE/FRONT-END LOADER <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2024	\$56.03	\$15.30	\$16.40	\$0.00	\$87.73
	12/01/2024	\$57.48	\$15.30	\$16.40	\$0.00	\$89.18
	06/01/2025	\$58.78	\$15.30	\$16.40	\$0.00	\$90.48
	12/01/2025	\$60.23	\$15.30	\$16.40	\$0.00	\$91.93
	06/01/2026	\$61.53	\$15.30	\$16.40	\$0.00	\$93.23
	12/01/2026	\$62.98	\$15.30	\$16.40	\$0.00	\$94.68
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
BARCO-TYPE JUMPING TAMPER <i>LABORERS - ZONE 2</i>	06/01/2024	\$38.78	\$9.65	\$18.40	\$0.00	\$66.83
	12/01/2024	\$40.11	\$9.65	\$18.40	\$0.00	\$68.16
	06/01/2025	\$41.50	\$9.65	\$18.40	\$0.00	\$69.55
	12/01/2025	\$42.88	\$9.65	\$18.40	\$0.00	\$70.93
	06/01/2026	\$44.32	\$9.65	\$18.40	\$0.00	\$72.37
	12/01/2026	\$45.76	\$9.65	\$18.40	\$0.00	\$73.81
	06/01/2027	\$47.21	\$9.65	\$18.40	\$0.00	\$75.26
	12/01/2027	\$48.66	\$9.65	\$18.40	\$0.00	\$76.71
	06/01/2028	\$50.16	\$9.65	\$18.40	\$0.00	\$78.21
	12/01/2028	\$51.66	\$9.65	\$18.40	\$0.00	\$79.71
For apprentice rates see "Apprentice- LABORER"						
BLOCK PAVER, RAMMER / CURB SETTER <i>LABORERS - ZONE 2</i>	06/01/2024	\$39.28	\$9.65	\$18.40	\$0.00	\$67.33
	12/01/2024	\$40.61	\$9.65	\$18.40	\$0.00	\$68.66
	06/01/2025	\$42.00	\$9.65	\$18.40	\$0.00	\$70.05
	12/01/2025	\$43.38	\$9.65	\$18.40	\$0.00	\$71.43
	06/01/2026	\$44.82	\$9.65	\$18.40	\$0.00	\$72.87
	12/01/2026	\$46.26	\$9.65	\$18.40	\$0.00	\$74.31
	06/01/2027	\$47.71	\$9.65	\$18.40	\$0.00	\$75.76
	12/01/2027	\$49.16	\$9.65	\$18.40	\$0.00	\$77.21
	06/01/2028	\$50.66	\$9.65	\$18.40	\$0.00	\$78.71
	12/01/2028	\$52.16	\$9.65	\$18.40	\$0.00	\$80.21
For apprentice rates see "Apprentice- LABORER"						
BLOCK PAVER, RAMMER / CURB SETTER (HEAVY & HIGHWAY) <i>LABORERS - ZONE 2 (HEAVY & HIGHWAY)</i>	06/01/2024	\$39.28	\$9.65	\$17.80	\$0.00	\$66.73
	12/01/2024	\$40.61	\$9.65	\$17.80	\$0.00	\$68.06
	06/01/2025	\$42.00	\$9.65	\$17.80	\$0.00	\$69.45
	12/01/2025	\$43.38	\$9.65	\$17.80	\$0.00	\$70.83
	06/01/2026	\$44.82	\$9.65	\$17.80	\$0.00	\$72.27
	12/01/2026	\$46.26	\$9.65	\$17.80	\$0.00	\$73.71
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
BOILER MAKER <i>BOILERMAKERS LOCAL 29</i>	01/01/2024	\$48.12	\$7.07	\$20.60	\$0.00	\$75.79

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - BOILERMAKER - Local 29

Effective Date - 01/01/2024

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	65	\$31.28	\$7.07	\$13.22	\$0.00	\$51.57
2	65	\$31.28	\$7.07	\$13.22	\$0.00	\$51.57
3	70	\$33.68	\$7.07	\$14.23	\$0.00	\$54.98
4	75	\$36.09	\$7.07	\$15.24	\$0.00	\$58.40
5	80	\$38.50	\$7.07	\$16.25	\$0.00	\$61.82
6	85	\$40.90	\$7.07	\$17.28	\$0.00	\$65.25
7	90	\$43.31	\$7.07	\$18.28	\$0.00	\$68.66
8	95	\$45.71	\$7.07	\$19.32	\$0.00	\$72.10

Notes:

Apprentice to Journeyworker Ratio:1:4

BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING)	08/01/2024	\$62.36	\$11.49	\$22.90	\$0.00	\$96.75
BRICKLAYERS LOCAL 3 (WORCESTER)	02/01/2025	\$63.66	\$11.49	\$22.90	\$0.00	\$98.05
	08/01/2025	\$65.81	\$11.49	\$22.90	\$0.00	\$100.20
	02/01/2026	\$67.16	\$11.49	\$22.90	\$0.00	\$101.55
	08/01/2026	\$69.36	\$11.49	\$22.90	\$0.00	\$103.75
	02/01/2027	\$70.76	\$11.49	\$22.90	\$0.00	\$105.15

Apprentice - BRICK/PLASTER/CEMENT MASON - Local 3 Worcester

Effective Date - 08/01/2024

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$31.18	\$11.49	\$22.90	\$0.00	\$65.57
2	60	\$37.42	\$11.49	\$22.90	\$0.00	\$71.81
3	70	\$43.65	\$11.49	\$22.90	\$0.00	\$78.04
4	80	\$49.89	\$11.49	\$22.90	\$0.00	\$84.28
5	90	\$56.12	\$11.49	\$22.90	\$0.00	\$90.51

Effective Date - 02/01/2025

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$31.83	\$11.49	\$22.90	\$0.00	\$66.22
2	60	\$38.20	\$11.49	\$22.90	\$0.00	\$72.59
3	70	\$44.56	\$11.49	\$22.90	\$0.00	\$78.95
4	80	\$50.93	\$11.49	\$22.90	\$0.00	\$85.32
5	90	\$57.29	\$11.49	\$22.90	\$0.00	\$91.68

Notes:

Apprentice to Journeyworker Ratio:1:5

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
BULLDOZER/GRADER/SCRAPER <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2024	\$55.41	\$15.30	\$16.40	\$0.00	\$87.11
	12/01/2024	\$56.85	\$15.30	\$16.40	\$0.00	\$88.55
	06/01/2025	\$58.13	\$15.30	\$16.40	\$0.00	\$89.83
	12/01/2025	\$59.57	\$15.30	\$16.40	\$0.00	\$91.27
	06/01/2026	\$60.85	\$15.30	\$16.40	\$0.00	\$92.55
	12/01/2026	\$62.29	\$15.30	\$16.40	\$0.00	\$93.99
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
CAISSON & UNDERPINNING BOTTOM MAN <i>LABORERS - FOUNDATION AND MARINE</i>	06/01/2024	\$46.63	\$9.65	\$18.22	\$0.00	\$74.50
	12/01/2024	\$48.10	\$9.65	\$18.22	\$0.00	\$75.97
	06/01/2025	\$49.60	\$9.65	\$18.22	\$0.00	\$77.47
	12/01/2025	\$51.10	\$9.65	\$18.22	\$0.00	\$78.97
	06/01/2026	\$52.65	\$9.65	\$18.22	\$0.00	\$80.52
	12/01/2026	\$54.15	\$9.65	\$18.22	\$0.00	\$82.02
For apprentice rates see "Apprentice- LABORER"						
CAISSON & UNDERPINNING LABORER <i>LABORERS - FOUNDATION AND MARINE</i>	06/01/2024	\$45.48	\$9.65	\$18.22	\$0.00	\$73.35
	12/01/2024	\$46.95	\$9.65	\$18.22	\$0.00	\$74.82
	06/01/2025	\$48.45	\$9.65	\$18.22	\$0.00	\$76.32
	12/01/2025	\$49.95	\$9.65	\$18.22	\$0.00	\$77.82
	06/01/2026	\$51.50	\$9.65	\$18.22	\$0.00	\$79.37
	12/01/2026	\$53.00	\$9.65	\$18.22	\$0.00	\$80.87
For apprentice rates see "Apprentice- LABORER"						
CAISSON & UNDERPINNING TOP MAN <i>LABORERS - FOUNDATION AND MARINE</i>	06/01/2024	\$45.81	\$9.65	\$18.22	\$0.00	\$73.68
	12/01/2024	\$47.28	\$9.65	\$18.22	\$0.00	\$75.15
	06/01/2025	\$48.78	\$9.65	\$18.22	\$0.00	\$76.65
	12/01/2025	\$50.28	\$9.65	\$18.22	\$0.00	\$78.15
	06/01/2026	\$51.83	\$9.65	\$18.22	\$0.00	\$79.70
	12/01/2026	\$53.33	\$9.65	\$18.22	\$0.00	\$81.20
For apprentice rates see "Apprentice- LABORER"						
CARBIDE CORE DRILL OPERATOR <i>LABORERS - ZONE 2</i>	06/01/2024	\$38.78	\$9.65	\$18.40	\$0.00	\$66.83
	12/01/2024	\$40.11	\$9.65	\$18.40	\$0.00	\$68.16
	06/01/2025	\$41.50	\$9.65	\$18.40	\$0.00	\$69.55
	12/01/2025	\$42.88	\$9.65	\$18.40	\$0.00	\$70.93
	06/01/2026	\$44.32	\$9.65	\$18.40	\$0.00	\$72.37
	12/01/2026	\$45.76	\$9.65	\$18.40	\$0.00	\$73.81
	06/01/2027	\$47.21	\$9.65	\$18.40	\$0.00	\$75.26
	12/01/2027	\$48.66	\$9.65	\$18.40	\$0.00	\$76.71
	06/01/2028	\$50.16	\$9.65	\$18.40	\$0.00	\$78.21
12/01/2028	\$51.66	\$9.65	\$18.40	\$0.00	\$79.71	
For apprentice rates see "Apprentice- LABORER"						
CARPENTER <i>CARPENTERS -ZONE 2 (Eastern Massachusetts)</i>	09/01/2024	\$48.37	\$9.83	\$19.97	\$0.00	\$78.17
	03/01/2025	\$49.62	\$9.83	\$19.97	\$0.00	\$79.42
	09/01/2025	\$50.87	\$9.83	\$19.97	\$0.00	\$80.67
	03/01/2026	\$52.12	\$9.83	\$19.97	\$0.00	\$81.92
	09/01/2026	\$53.37	\$9.83	\$19.97	\$0.00	\$83.17
	03/01/2027	\$54.62	\$9.83	\$19.97	\$0.00	\$84.42

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - CARPENTER - Zone 2 Eastern MA

Effective Date - 09/01/2024

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	45	\$21.77	\$9.83	\$1.73	\$0.00	\$33.33
2	45	\$21.77	\$9.83	\$1.73	\$0.00	\$33.33
3	55	\$26.60	\$9.83	\$3.40	\$0.00	\$39.83
4	55	\$26.60	\$9.83	\$3.40	\$0.00	\$39.83
5	70	\$33.86	\$9.83	\$16.51	\$0.00	\$60.20
6	70	\$33.86	\$9.83	\$16.51	\$0.00	\$60.20
7	80	\$38.70	\$9.83	\$18.24	\$0.00	\$66.77
8	80	\$38.70	\$9.83	\$18.24	\$0.00	\$66.77

Effective Date - 03/01/2025

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	45	\$22.33	\$9.83	\$1.73	\$0.00	\$33.89
2	45	\$22.33	\$9.83	\$1.73	\$0.00	\$33.89
3	55	\$27.29	\$9.83	\$3.40	\$0.00	\$40.52
4	55	\$27.29	\$9.83	\$3.40	\$0.00	\$40.52
5	70	\$34.73	\$9.83	\$16.51	\$0.00	\$61.07
6	70	\$34.73	\$9.83	\$16.51	\$0.00	\$61.07
7	80	\$39.70	\$9.83	\$18.24	\$0.00	\$67.77
8	80	\$39.70	\$9.83	\$18.24	\$0.00	\$67.77

Notes:

Apprentice to Journeyworker Ratio:1:5

CARPENTER WOOD FRAME	10/01/2023	\$25.55	\$7.02	\$4.80	\$0.00	\$37.37
CARPENTERS-ZONE 3 (Wood Frame)	10/01/2024	\$26.65	\$7.02	\$4.80	\$0.00	\$38.47
	10/01/2025	\$27.75	\$7.02	\$4.80	\$0.00	\$39.57
	10/01/2026	\$28.85	\$7.02	\$4.80	\$0.00	\$40.67

All Aspects of New Wood Frame Work

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - CARPENTER (Wood Frame) - Zone 3

Effective Date - 10/01/2023

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$15.33	\$7.02	\$0.00	\$0.00	\$22.35
2	60	\$15.33	\$7.02	\$0.00	\$0.00	\$22.35
3	65	\$16.61	\$7.02	\$1.00	\$0.00	\$24.63
4	70	\$17.89	\$7.02	\$1.00	\$0.00	\$25.91
5	75	\$19.16	\$7.02	\$4.80	\$0.00	\$30.98
6	80	\$20.44	\$7.02	\$4.80	\$0.00	\$32.26
7	85	\$21.72	\$7.02	\$4.80	\$0.00	\$33.54
8	90	\$23.00	\$7.02	\$4.80	\$0.00	\$34.82

Effective Date - 10/01/2024

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$15.99	\$7.02	\$0.00	\$0.00	\$23.01
2	60	\$15.99	\$7.02	\$0.00	\$0.00	\$23.01
3	65	\$17.32	\$7.02	\$1.00	\$0.00	\$25.34
4	70	\$18.66	\$7.02	\$1.00	\$0.00	\$26.68
5	75	\$19.99	\$7.02	\$4.80	\$0.00	\$31.81
6	80	\$21.32	\$7.02	\$4.80	\$0.00	\$33.14
7	85	\$22.65	\$7.02	\$4.80	\$0.00	\$34.47
8	90	\$23.99	\$7.02	\$4.80	\$0.00	\$35.81

Notes:
 % Indentured After 10/1/17; 45/45/55/55/70/70/80/80
 Step 1&2 \$18.52/ 3&4 \$21.07/ 5&6 \$28.70/ 7&8 \$31.26

Apprentice to Journeyworker Ratio:1:5

CEMENT MASONRY/PLASTERING BRICKLAYERS LOCAL 3 (WORCESTER)	01/01/2024	\$49.33	\$13.00	\$23.57	\$1.30	\$87.20
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Apprentice - CEMENT MASONRY/PLASTERING - Worcester

Effective Date - 01/01/2024

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.67	\$13.00	\$15.93	\$0.00	\$53.60
2	60	\$29.60	\$13.00	\$18.57	\$1.30	\$62.47
3	65	\$32.06	\$13.00	\$19.57	\$1.30	\$65.93
4	70	\$34.53	\$13.00	\$20.57	\$1.30	\$69.40
5	75	\$37.00	\$13.00	\$21.57	\$1.30	\$72.87
6	80	\$39.46	\$13.00	\$22.57	\$1.30	\$76.33
7	90	\$44.40	\$13.00	\$23.57	\$1.30	\$82.27

Notes:
 Steps 3,4 are 500 hrs. All other steps are 1,000 hrs.

Apprentice to Journeyworker Ratio:1:3

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
CHAIN SAW OPERATOR <i>LABORERS - ZONE 2</i>	06/01/2024	\$38.78	\$9.65	\$18.40	\$0.00	\$66.83
	12/01/2024	\$40.11	\$9.65	\$18.40	\$0.00	\$68.16
	06/01/2025	\$41.50	\$9.65	\$18.40	\$0.00	\$69.55
	12/01/2025	\$42.88	\$9.65	\$18.40	\$0.00	\$70.93
	06/01/2026	\$44.32	\$9.65	\$18.40	\$0.00	\$72.37
	12/01/2026	\$45.76	\$9.65	\$18.40	\$0.00	\$73.81
	06/01/2027	\$47.21	\$9.65	\$18.40	\$0.00	\$75.26
	12/01/2027	\$48.66	\$9.65	\$18.40	\$0.00	\$76.71
	06/01/2028	\$50.16	\$9.65	\$18.40	\$0.00	\$78.21
	12/01/2028	\$51.66	\$9.65	\$18.40	\$0.00	\$79.71
For apprentice rates see "Apprentice- LABORER"						
CLAM SHELLS/SLURRY BUCKETS/HEADING MACHINES <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2024	\$57.15	\$15.30	\$16.40	\$0.00	\$88.85
	12/01/2024	\$58.63	\$15.30	\$16.40	\$0.00	\$90.33
	06/01/2025	\$59.96	\$15.30	\$16.40	\$0.00	\$91.66
	12/01/2025	\$61.43	\$15.30	\$16.40	\$0.00	\$93.13
	06/01/2026	\$62.76	\$15.30	\$16.40	\$0.00	\$94.46
	12/01/2026	\$64.24	\$15.30	\$16.40	\$0.00	\$95.94
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
COMPRESSOR OPERATOR <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2024	\$36.17	\$15.30	\$16.40	\$0.00	\$67.87
	12/01/2024	\$37.12	\$15.30	\$16.40	\$0.00	\$68.82
	06/01/2025	\$37.97	\$15.30	\$16.40	\$0.00	\$69.67
	12/01/2025	\$38.92	\$15.30	\$16.40	\$0.00	\$70.62
	06/01/2026	\$39.78	\$15.30	\$16.40	\$0.00	\$71.48
	12/01/2026	\$40.73	\$15.30	\$16.40	\$0.00	\$72.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
DELEADER (BRIDGE) <i>PAINTERS LOCAL 35 - ZONE 2</i>	07/01/2024	\$57.26	\$9.95	\$23.95	\$0.00	\$91.16
	01/01/2025	\$58.46	\$9.95	\$23.95	\$0.00	\$92.36

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - PAINTER Local 35 - BRIDGES/TANKS

Effective Date - 07/01/2024

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$28.63	\$9.95	\$0.00	\$0.00	\$38.58
2	55	\$31.49	\$9.95	\$6.66	\$0.00	\$48.10
3	60	\$34.36	\$9.95	\$7.26	\$0.00	\$51.57
4	65	\$37.22	\$9.95	\$7.87	\$0.00	\$55.04
5	70	\$40.08	\$9.95	\$20.32	\$0.00	\$70.35
6	75	\$42.95	\$9.95	\$20.93	\$0.00	\$73.83
7	80	\$45.81	\$9.95	\$21.53	\$0.00	\$77.29
8	90	\$51.53	\$9.95	\$22.74	\$0.00	\$84.22

Effective Date - 01/01/2025

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$29.23	\$9.95	\$0.00	\$0.00	\$39.18
2	55	\$32.15	\$9.95	\$6.66	\$0.00	\$48.76
3	60	\$35.08	\$9.95	\$7.26	\$0.00	\$52.29
4	65	\$38.00	\$9.95	\$7.87	\$0.00	\$55.82
5	70	\$40.92	\$9.95	\$20.32	\$0.00	\$71.19
6	75	\$43.85	\$9.95	\$20.93	\$0.00	\$74.73
7	80	\$46.77	\$9.95	\$21.53	\$0.00	\$78.25
8	90	\$52.61	\$9.95	\$22.74	\$0.00	\$85.30

Notes:
Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

DEMO: ADZEMAN LABORERS - ZONE 2	12/01/2023	\$44.48	\$9.65	\$18.07	\$0.00	\$72.20
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For apprentice rates see "Apprentice- LABORER"

DEMO: BACKHOE/LOADER/HAMMER OPERATOR LABORERS - ZONE 2	12/01/2023	\$45.48	\$9.65	\$18.07	\$0.00	\$73.20
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For apprentice rates see "Apprentice- LABORER"

DEMO: BURNERS LABORERS - ZONE 2	12/01/2023	\$45.23	\$9.65	\$18.07	\$0.00	\$72.95
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For apprentice rates see "Apprentice- LABORER"

DEMO: CONCRETE CUTTER/SAWYER LABORERS - ZONE 2	12/01/2023	\$45.48	\$9.65	\$18.07	\$0.00	\$73.20
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For apprentice rates see "Apprentice- LABORER"

DEMO: JACKHAMMER OPERATOR LABORERS - ZONE 2	12/01/2023	\$45.23	\$9.65	\$18.07	\$0.00	\$72.95
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For apprentice rates see "Apprentice- LABORER"

DEMO: WRECKING LABORER LABORERS - ZONE 2	12/01/2023	\$44.48	\$9.65	\$18.07	\$0.00	\$72.20
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For apprentice rates see "Apprentice- LABORER"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
DIRECTIONAL DRILL MACHINE OPERATOR <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2024	\$55.41	\$15.30	\$16.40	\$0.00	\$87.11
	12/01/2024	\$56.85	\$15.30	\$16.40	\$0.00	\$88.55
	06/01/2025	\$58.13	\$15.30	\$16.40	\$0.00	\$89.83
	12/01/2025	\$59.57	\$15.30	\$16.40	\$0.00	\$91.27
	06/01/2026	\$60.85	\$15.30	\$16.40	\$0.00	\$92.55
	12/01/2026	\$62.29	\$15.30	\$16.40	\$0.00	\$93.99
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
DIVER <i>PILE DRIVER LOCAL 56 (ZONE 2)</i>	08/01/2020	\$68.70	\$9.40	\$23.12	\$0.00	\$101.22
For apprentice rates see "Apprentice- PILE DRIVER"						
DIVER TENDER <i>PILE DRIVER LOCAL 56 (ZONE 2)</i>	08/01/2020	\$49.07	\$9.40	\$23.12	\$0.00	\$81.59
For apprentice rates see "Apprentice- PILE DRIVER"						
DIVER TENDER (EFFLUENT) <i>PILE DRIVER LOCAL 56 (ZONE 2)</i>	08/01/2020	\$73.60	\$9.40	\$23.12	\$0.00	\$106.12
For apprentice rates see "Apprentice- PILE DRIVER"						
DIVER/SLURRY (EFFLUENT) <i>PILE DRIVER LOCAL 56 (ZONE 2)</i>	08/01/2020	\$103.05	\$9.40	\$23.12	\$0.00	\$135.57
For apprentice rates see "Apprentice- PILE DRIVER"						
DRAWBRIDGE OPERATOR (Construction) <i>DRAWBRIDGE - SEIU LOCAL 888</i>	07/01/2020	\$26.77	\$6.67	\$3.93	\$0.16	\$37.53
ELECTRICIAN <i>ELECTRICIANS LOCAL 96</i>	09/01/2024	\$47.05	\$13.99	\$19.22	\$0.00	\$80.26
	09/07/2025	\$48.16	\$14.98	\$19.60	\$0.00	\$82.74
	09/06/2026	\$49.38	\$15.96	\$20.00	\$0.00	\$85.34

Apprentice - ELECTRICIAN - Local 96

Effective Date - 09/01/2024

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$18.82	\$13.99	\$0.56	\$0.00	\$33.37
2	45	\$21.17	\$13.99	\$0.64	\$0.00	\$35.80
3	48	\$22.58	\$13.99	\$15.79	\$0.00	\$52.36
4	55	\$25.88	\$13.99	\$16.26	\$0.00	\$56.13
5	65	\$30.58	\$13.99	\$16.91	\$0.00	\$61.48
6	80	\$37.64	\$13.99	\$17.90	\$0.00	\$69.53

Effective Date - 09/07/2025

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$19.26	\$14.98	\$0.58	\$0.00	\$34.82
2	45	\$21.67	\$14.98	\$0.65	\$0.00	\$37.30
3	48	\$23.12	\$14.98	\$16.09	\$0.00	\$54.19
4	55	\$26.49	\$14.98	\$16.57	\$0.00	\$58.04
5	65	\$31.30	\$14.98	\$17.25	\$0.00	\$63.53
6	80	\$38.53	\$14.98	\$18.26	\$0.00	\$71.77

Notes:

Steps 1-2 are 1000 hrs; Steps 3-6 are 1500 hrs.

Apprentice to Journeyworker Ratio:2:3***

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
ELEVATOR CONSTRUCTOR <i>ELEVATOR CONSTRUCTORS LOCAL 41</i>	01/01/2024	\$61.98	\$16.18	\$20.96	\$0.00	\$99.12
	01/01/2025	\$62.83	\$16.28	\$21.36	\$0.00	\$100.47
	01/01/2026	\$63.68	\$16.38	\$21.76	\$0.00	\$101.82
	01/01/2027	\$64.53	\$16.48	\$22.16	\$0.00	\$103.17

Apprentice - ELEVATOR CONSTRUCTOR - Local 41

Effective Date - 01/01/2024

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$30.99	\$16.18	\$0.00	\$0.00	\$47.17
2	55	\$34.09	\$16.18	\$20.96	\$0.00	\$71.23
3	65	\$40.29	\$16.18	\$20.96	\$0.00	\$77.43
4	70	\$43.39	\$16.18	\$20.96	\$0.00	\$80.53
5	80	\$49.58	\$16.18	\$20.96	\$0.00	\$86.72

Effective Date - 01/01/2025

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$31.42	\$16.28	\$0.00	\$0.00	\$47.70
2	55	\$34.56	\$16.28	\$21.36	\$0.00	\$72.20
3	65	\$40.84	\$16.28	\$21.36	\$0.00	\$78.48
4	70	\$43.98	\$16.28	\$21.36	\$0.00	\$81.62
5	80	\$50.26	\$16.28	\$21.36	\$0.00	\$87.90

Notes:

Steps 1-2 are 6 mos.; Steps 3-5 are 1 year

Apprentice to Journeyworker Ratio:1:1

ELEVATOR CONSTRUCTOR HELPER <i>ELEVATOR CONSTRUCTORS LOCAL 41</i>	01/01/2024	\$43.39	\$16.18	\$20.96	\$0.00	\$80.53
	01/01/2025	\$43.98	\$16.28	\$21.36	\$0.00	\$81.62
	01/01/2026	\$44.58	\$16.38	\$21.76	\$0.00	\$82.72
	01/01/2027	\$45.17	\$16.48	\$22.16	\$0.00	\$83.81

For apprentice rates see "Apprentice - ELEVATOR CONSTRUCTOR"

FENCE & GUARD RAIL ERECTOR (HEAVY & HIGHWAY) <i>LABORERS - ZONE 2 (HEAVY & HIGHWAY)</i>	06/01/2024	\$38.78	\$9.65	\$17.80	\$0.00	\$66.23
	12/01/2024	\$40.11	\$9.65	\$17.80	\$0.00	\$67.56
	06/01/2025	\$41.50	\$9.65	\$17.80	\$0.00	\$68.95
	12/01/2025	\$42.88	\$9.65	\$17.80	\$0.00	\$70.33
	06/01/2026	\$44.32	\$9.65	\$17.80	\$0.00	\$71.77
	12/01/2026	\$45.76	\$9.65	\$17.80	\$0.00	\$73.21

For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"

FIELD ENG.INST.PERSON-BLDG,SITE,HVY/HWY <i>OPERATING ENGINEERS LOCAL 4</i>	05/01/2024	\$50.79	\$15.00	\$16.40	\$0.00	\$82.19
	11/01/2024	\$52.08	\$15.00	\$16.40	\$0.00	\$83.48
	05/01/2025	\$53.52	\$15.00	\$16.40	\$0.00	\$84.92
	11/01/2025	\$54.81	\$15.00	\$16.40	\$0.00	\$86.21
	05/01/2026	\$56.25	\$15.00	\$16.40	\$0.00	\$87.65
	11/01/2026	\$57.54	\$15.00	\$16.40	\$0.00	\$88.94
	05/01/2027	\$58.97	\$15.00	\$16.40	\$0.00	\$90.37

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
FIELD ENG.PARTY CHIEF-BLDG,SITE,HVY/HWY <i>OPERATING ENGINEERS LOCAL 4</i>	05/01/2024	\$52.37	\$15.00	\$16.40	\$0.00	\$83.77
	11/01/2024	\$53.67	\$15.00	\$16.40	\$0.00	\$85.07
	05/01/2025	\$55.12	\$15.00	\$16.40	\$0.00	\$86.52
	11/01/2025	\$56.42	\$15.00	\$16.40	\$0.00	\$87.82
	05/01/2026	\$57.87	\$15.00	\$16.40	\$0.00	\$89.27
	11/01/2026	\$59.17	\$15.00	\$16.40	\$0.00	\$90.57
	05/01/2027	\$60.62	\$15.00	\$16.40	\$0.00	\$92.02
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FIELD ENG.ROD PERSON-BLDG,SITE,HVY/HWY <i>OPERATING ENGINEERS LOCAL 4</i>	05/01/2024	\$24.91	\$15.00	\$16.40	\$0.00	\$56.31
	11/01/2024	\$25.67	\$15.00	\$16.40	\$0.00	\$57.07
	05/01/2025	\$26.52	\$15.00	\$16.40	\$0.00	\$57.92
	11/01/2025	\$27.28	\$15.00	\$16.40	\$0.00	\$58.68
	05/01/2026	\$28.13	\$15.00	\$16.40	\$0.00	\$59.53
	11/01/2026	\$28.89	\$15.00	\$16.40	\$0.00	\$60.29
	05/01/2027	\$29.74	\$15.00	\$16.40	\$0.00	\$61.14
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FIRE ALARM INSTALLER <i>ELECTRICIANS LOCAL 96</i>	09/01/2024	\$47.05	\$13.99	\$19.22	\$0.00	\$80.26
	09/07/2025	\$48.16	\$14.98	\$19.60	\$0.00	\$82.74
	09/06/2026	\$49.38	\$15.96	\$20.00	\$0.00	\$85.34
For apprentice rates see "Apprentice- ELECTRICIAN"						
FIRE ALARM REPAIR / MAINT/COMMISSIONING <i>ELECTRICIANS LOCAL 96</i>	09/01/2024	\$47.05	\$13.99	\$19.22	\$0.00	\$80.26
	09/07/2025	\$48.16	\$14.98	\$19.60	\$0.00	\$82.74
	09/06/2026	\$49.38	\$15.96	\$20.00	\$0.00	\$85.34
For apprentice rates see "Apprentice- ELECTRICIAN"						
FIREMAN (ASST. ENGINEER) <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2024	\$45.23	\$15.30	\$16.40	\$0.00	\$76.93
	12/01/2024	\$46.41	\$15.30	\$16.40	\$0.00	\$78.11
	06/01/2025	\$47.47	\$15.30	\$16.40	\$0.00	\$79.17
	12/01/2025	\$48.64	\$15.30	\$16.40	\$0.00	\$80.34
	06/01/2026	\$49.70	\$15.30	\$16.40	\$0.00	\$81.40
	12/01/2026	\$50.88	\$15.30	\$16.40	\$0.00	\$82.58
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FLAGGER & SIGNALER (HEAVY & HIGHWAY) <i>LABORERS - ZONE 2 (HEAVY & HIGHWAY)</i>	06/01/2024	\$27.01	\$9.65	\$17.80	\$0.00	\$54.46
	12/01/2024	\$27.01	\$9.65	\$17.80	\$0.00	\$54.46
	06/01/2025	\$28.09	\$9.65	\$17.80	\$0.00	\$55.54
	12/01/2025	\$28.09	\$9.65	\$17.80	\$0.00	\$55.54
	06/01/2026	\$29.21	\$9.65	\$17.80	\$0.00	\$56.66
	12/01/2026	\$29.21	\$9.65	\$17.80	\$0.00	\$56.66
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
FLOORCOVERER <i>FLOORCOVERERS LOCAL 2168 ZONE II</i>	03/01/2024	\$49.47	\$8.83	\$20.27	\$0.00	\$78.57

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - FLOORCOVERER - Local 2168 Zone II

Effective Date - 03/01/2024

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.74	\$8.83	\$1.76	\$0.00	\$35.33
2	55	\$27.21	\$8.83	\$1.76	\$0.00	\$37.80
3	60	\$29.68	\$8.83	\$3.52	\$0.00	\$42.03
4	65	\$32.16	\$8.83	\$3.52	\$0.00	\$44.51
5	70	\$34.63	\$8.83	\$16.75	\$0.00	\$60.21
6	75	\$37.10	\$8.83	\$16.75	\$0.00	\$62.68
7	80	\$39.58	\$8.83	\$18.51	\$0.00	\$66.92
8	85	\$42.05	\$8.83	\$18.51	\$0.00	\$69.39

Notes: Steps are 750 hrs.
 % After 10/1/17; 45/45/55/55/70/70/80/80 (1500hr Steps)
 Step 1&2 \$32.63/ 3&4 \$39.28/ 5&6 \$59.86/ 7&8 \$66.52

Apprentice to Journeyworker Ratio:1:1

FORK LIFT/CHERRY PICKER <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2024	\$56.03	\$15.30	\$16.40	\$0.00	\$87.73
	12/01/2024	\$57.48	\$15.30	\$16.40	\$0.00	\$89.18
	06/01/2025	\$58.78	\$15.30	\$16.40	\$0.00	\$90.48
	12/01/2025	\$60.23	\$15.30	\$16.40	\$0.00	\$91.93
	06/01/2026	\$61.53	\$15.30	\$16.40	\$0.00	\$93.23
	12/01/2026	\$62.98	\$15.30	\$16.40	\$0.00	\$94.68

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

GENERATOR/LIGHTING PLANT/HEATERS <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2024	\$36.17	\$15.30	\$16.40	\$0.00	\$67.87
	12/01/2024	\$37.12	\$15.30	\$16.40	\$0.00	\$68.82
	06/01/2025	\$37.97	\$15.30	\$16.40	\$0.00	\$69.67
	12/01/2025	\$38.92	\$15.30	\$16.40	\$0.00	\$70.62
	06/01/2026	\$39.78	\$15.30	\$16.40	\$0.00	\$71.48
	12/01/2026	\$40.73	\$15.30	\$16.40	\$0.00	\$72.43

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS) <i>GLAZIERS LOCAL 35 (ZONE 2)</i>	07/01/2024	\$46.76	\$9.95	\$23.95	\$0.00	\$80.66
	01/01/2025	\$47.96	\$9.95	\$23.95	\$0.00	\$81.86

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - GLAZIER - Local 35 Zone 2

Effective Date - 07/01/2024

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.38	\$9.95	\$0.00	\$0.00	\$33.33
2	55	\$25.72	\$9.95	\$6.66	\$0.00	\$42.33
3	60	\$28.06	\$9.95	\$7.26	\$0.00	\$45.27
4	65	\$30.39	\$9.95	\$7.87	\$0.00	\$48.21
5	70	\$32.73	\$9.95	\$20.32	\$0.00	\$63.00
6	75	\$35.07	\$9.95	\$20.93	\$0.00	\$65.95
7	80	\$37.41	\$9.95	\$21.53	\$0.00	\$68.89
8	90	\$42.08	\$9.95	\$22.74	\$0.00	\$74.77

Effective Date - 01/01/2025

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.98	\$9.95	\$0.00	\$0.00	\$33.93
2	55	\$26.38	\$9.95	\$6.66	\$0.00	\$42.99
3	60	\$28.78	\$9.95	\$7.26	\$0.00	\$45.99
4	65	\$31.17	\$9.95	\$7.87	\$0.00	\$48.99
5	70	\$33.57	\$9.95	\$20.32	\$0.00	\$63.84
6	75	\$35.97	\$9.95	\$20.93	\$0.00	\$66.85
7	80	\$38.37	\$9.95	\$21.53	\$0.00	\$69.85
8	90	\$43.16	\$9.95	\$22.74	\$0.00	\$75.85

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

HOISTING ENGINEER/CRANES/GRADALLS	06/01/2024	\$56.03	\$15.30	\$16.40	\$0.00	\$87.73
OPERATING ENGINEERS LOCAL 4	12/01/2024	\$57.48	\$15.30	\$16.40	\$0.00	\$89.18
	06/01/2025	\$58.78	\$15.30	\$16.40	\$0.00	\$90.48
	12/01/2025	\$60.23	\$15.30	\$16.40	\$0.00	\$91.93
	06/01/2026	\$61.53	\$15.30	\$16.40	\$0.00	\$93.23
	12/01/2026	\$62.98	\$15.30	\$16.40	\$0.00	\$94.68

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - OPERATING ENGINEERS - Local 4

Effective Date - 06/01/2024

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$30.82	\$15.30	\$0.00	\$0.00	\$46.12
2	60	\$33.62	\$15.30	\$16.40	\$0.00	\$65.32
3	65	\$36.42	\$15.30	\$16.40	\$0.00	\$68.12
4	70	\$39.22	\$15.30	\$16.40	\$0.00	\$70.92
5	75	\$42.02	\$15.30	\$16.40	\$0.00	\$73.72
6	80	\$44.82	\$15.30	\$16.40	\$0.00	\$76.52
7	85	\$47.63	\$15.30	\$16.40	\$0.00	\$79.33
8	90	\$50.43	\$15.30	\$16.40	\$0.00	\$82.13

Effective Date - 12/01/2024

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$31.61	\$0.00	\$0.00	\$0.00	\$31.61
2	60	\$34.49	\$15.30	\$16.40	\$0.00	\$66.19
3	65	\$37.36	\$15.30	\$16.40	\$0.00	\$69.06
4	70	\$40.24	\$15.30	\$16.40	\$0.00	\$71.94
5	75	\$43.11	\$15.30	\$16.40	\$0.00	\$74.81
6	80	\$45.98	\$15.30	\$16.40	\$0.00	\$77.68
7	85	\$48.86	\$15.30	\$16.40	\$0.00	\$80.56
8	90	\$51.73	\$15.30	\$16.40	\$0.00	\$83.43

Notes:

Apprentice to Journeyworker Ratio:1:6

HVAC (DUCTWORK) SHEETMETAL WORKERS LOCAL 63	07/01/2024	\$40.98	\$12.20	\$18.74	\$2.13	\$74.05
	01/01/2025	\$42.23	\$12.20	\$18.74	\$2.13	\$75.30

For apprentice rates see "Apprentice- SHEET METAL WORKER"

HVAC (ELECTRICAL CONTROLS) ELECTRICIANS LOCAL 96	09/01/2024	\$47.05	\$13.99	\$19.22	\$0.00	\$80.26
	09/07/2025	\$48.16	\$14.98	\$19.60	\$0.00	\$82.74
	09/06/2026	\$49.38	\$15.96	\$20.00	\$0.00	\$85.34

For apprentice rates see "Apprentice- ELECTRICIAN"

HVAC (TESTING AND BALANCING - AIR) SHEETMETAL WORKERS LOCAL 63	07/01/2024	\$40.98	\$12.20	\$18.74	\$2.13	\$74.05
	01/01/2025	\$42.23	\$12.20	\$18.74	\$2.13	\$75.30

For apprentice rates see "Apprentice- SHEET METAL WORKER"

HVAC (TESTING AND BALANCING -WATER) PLUMBERS LOCAL 4	09/01/2024	\$55.35	\$9.90	\$17.42	\$0.00	\$82.67
	03/01/2025	\$56.75	\$9.90	\$17.42	\$0.00	\$84.07
	09/01/2025	\$58.15	\$9.90	\$17.42	\$0.00	\$85.47
	03/01/2026	\$59.55	\$9.90	\$17.42	\$0.00	\$86.87

For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
HVAC MECHANIC PLUMBERS LOCAL 4	09/01/2024	\$55.35	\$9.90	\$17.42	\$0.00	\$82.67
	03/01/2025	\$56.75	\$9.90	\$17.42	\$0.00	\$84.07
	09/01/2025	\$58.15	\$9.90	\$17.42	\$0.00	\$85.47
	03/01/2026	\$59.55	\$9.90	\$17.42	\$0.00	\$86.87
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"						
HYDRAULIC DRILLS LABORERS - ZONE 2	06/01/2024	\$39.28	\$9.65	\$18.40	\$0.00	\$67.33
	12/01/2024	\$40.61	\$9.65	\$18.40	\$0.00	\$68.66
	06/01/2025	\$42.00	\$9.65	\$18.40	\$0.00	\$70.05
	12/01/2025	\$43.38	\$9.65	\$18.40	\$0.00	\$71.43
	06/01/2026	\$44.82	\$9.65	\$18.40	\$0.00	\$72.87
	12/01/2026	\$46.26	\$9.65	\$18.40	\$0.00	\$74.31
	06/01/2027	\$47.71	\$9.65	\$18.40	\$0.00	\$75.76
	12/01/2027	\$49.16	\$9.65	\$18.40	\$0.00	\$77.21
	06/01/2028	\$50.66	\$9.65	\$18.40	\$0.00	\$78.71
	12/01/2028	\$52.16	\$9.65	\$18.40	\$0.00	\$80.21
For apprentice rates see "Apprentice- LABORER"						
HYDRAULIC DRILLS (HEAVY & HIGHWAY) LABORERS - ZONE 2 (HEAVY & HIGHWAY)	06/01/2024	\$39.28	\$9.65	\$17.80	\$0.00	\$66.73
	12/01/2024	\$40.61	\$9.65	\$17.80	\$0.00	\$68.06
	06/01/2025	\$42.00	\$9.65	\$17.80	\$0.00	\$69.45
	12/01/2025	\$43.38	\$9.65	\$17.80	\$0.00	\$70.83
	06/01/2026	\$44.82	\$9.65	\$17.80	\$0.00	\$72.27
	12/01/2026	\$46.26	\$9.65	\$17.80	\$0.00	\$73.71
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
INSULATOR (PIPES & TANKS) HEAT & FROST INSULATORS LOCAL 6 (WORCESTER)	09/01/2024	\$51.23	\$14.75	\$19.61	\$0.00	\$85.59
	09/01/2025	\$54.31	\$14.75	\$19.61	\$0.00	\$88.67
	09/01/2026	\$57.38	\$14.75	\$19.61	\$0.00	\$91.74

Apprentice - ASBESTOS INSULATOR (Pipes & Tanks) - Local 6 Worcester

Effective Date - 09/01/2024

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$25.62	\$14.75	\$14.32	\$0.00	\$54.69
2	60	\$30.74	\$14.75	\$15.37	\$0.00	\$60.86
3	70	\$35.86	\$14.75	\$16.43	\$0.00	\$67.04
4	80	\$40.98	\$14.75	\$17.49	\$0.00	\$73.22

Effective Date - 09/01/2025

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$27.16	\$14.75	\$14.32	\$0.00	\$56.23
2	60	\$32.59	\$14.75	\$15.37	\$0.00	\$62.71
3	70	\$38.02	\$14.75	\$16.43	\$0.00	\$69.20
4	80	\$43.45	\$14.75	\$17.49	\$0.00	\$75.69

Notes:

Steps are 1 year

Apprentice to Journeyworker Ratio:1:4

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
IRONWORKER/WELDER <i>IRONWORKERS LOCAL 7 (WORCESTER AREA)</i>	03/16/2024	\$53.67	\$8.35	\$26.70	\$0.00	\$88.72

Apprentice - IRONWORKER - Local 7 Worcester

Effective Date - 03/16/2024

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$32.20	\$8.35	\$26.70	\$0.00	\$67.25
2	70	\$37.57	\$8.35	\$26.70	\$0.00	\$72.62
3	75	\$40.25	\$8.35	\$26.70	\$0.00	\$75.30
4	80	\$42.94	\$8.35	\$26.70	\$0.00	\$77.99
5	85	\$45.62	\$8.35	\$26.70	\$0.00	\$80.67
6	90	\$48.30	\$8.35	\$26.70	\$0.00	\$83.35

Notes:

Apprentice to Journeyworker Ratio:1:4

JACKHAMMER & PAVING BREAKER OPERATOR <i>LABORERS - ZONE 2</i>	06/01/2024	\$38.78	\$9.65	\$18.40	\$0.00	\$66.83
	12/01/2024	\$40.11	\$9.65	\$18.40	\$0.00	\$68.16
	06/01/2025	\$41.50	\$9.65	\$18.40	\$0.00	\$69.55
	12/01/2025	\$42.88	\$9.65	\$18.40	\$0.00	\$70.93
	06/01/2026	\$44.32	\$9.65	\$18.40	\$0.00	\$72.37
	12/01/2026	\$45.76	\$9.65	\$18.40	\$0.00	\$73.81
	06/01/2027	\$47.21	\$9.65	\$18.40	\$0.00	\$75.26
	12/01/2027	\$48.66	\$9.65	\$18.40	\$0.00	\$76.71
	06/01/2028	\$50.16	\$9.65	\$18.40	\$0.00	\$78.21
	12/01/2028	\$51.66	\$9.65	\$18.40	\$0.00	\$79.71

For apprentice rates see "Apprentice- LABORER"

LABORER <i>LABORERS - ZONE 2</i>	06/01/2024	\$38.53	\$9.65	\$18.40	\$0.00	\$66.58
	12/01/2024	\$39.86	\$9.65	\$18.40	\$0.00	\$67.91
	06/01/2025	\$41.25	\$9.65	\$18.40	\$0.00	\$69.30
	12/01/2025	\$42.63	\$9.65	\$18.40	\$0.00	\$70.68
	06/01/2026	\$44.07	\$9.65	\$18.40	\$0.00	\$72.12
	12/01/2026	\$45.51	\$9.65	\$18.40	\$0.00	\$73.56
	06/01/2027	\$46.96	\$9.65	\$18.40	\$0.00	\$75.01
	12/01/2027	\$48.41	\$9.65	\$18.40	\$0.00	\$76.46
	06/01/2028	\$49.91	\$9.65	\$18.40	\$0.00	\$77.96
	12/01/2028	\$51.41	\$9.65	\$18.40	\$0.00	\$79.46

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - LABORER - Zone 2

Effective Date - 06/01/2024

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$23.12	\$9.65	\$18.40	\$0.00	\$51.17
2	70	\$26.97	\$9.65	\$18.40	\$0.00	\$55.02
3	80	\$30.82	\$9.65	\$18.40	\$0.00	\$58.87
4	90	\$34.68	\$9.65	\$18.40	\$0.00	\$62.73

Effective Date - 12/01/2024

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$23.92	\$9.65	\$18.40	\$0.00	\$51.97
2	70	\$27.90	\$9.65	\$18.40	\$0.00	\$55.95
3	80	\$31.89	\$9.65	\$18.40	\$0.00	\$59.94
4	90	\$35.87	\$9.65	\$18.40	\$0.00	\$63.92

Notes:

Apprentice to Journeyworker Ratio:1:5

LABORER (HEAVY & HIGHWAY)	06/01/2024	\$38.53	\$9.65	\$17.80	\$0.00	\$65.98
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	12/01/2024	\$39.86	\$9.65	\$17.80	\$0.00	\$67.31
	06/01/2025	\$41.25	\$9.65	\$17.80	\$0.00	\$68.70
	12/01/2025	\$42.63	\$9.65	\$17.80	\$0.00	\$70.08
	06/01/2026	\$44.07	\$9.65	\$17.80	\$0.00	\$71.52
	12/01/2026	\$45.51	\$9.65	\$17.80	\$0.00	\$72.96

Apprentice - LABORER (Heavy & Highway) - Zone 2

Effective Date - 06/01/2024

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$23.12	\$9.65	\$17.80	\$0.00	\$50.57
2	70	\$26.97	\$9.65	\$17.80	\$0.00	\$54.42
3	80	\$30.82	\$9.65	\$17.80	\$0.00	\$58.27
4	90	\$34.68	\$9.65	\$17.80	\$0.00	\$62.13

Effective Date - 12/01/2024

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$23.92	\$9.65	\$17.80	\$0.00	\$51.37
2	70	\$27.90	\$9.65	\$17.80	\$0.00	\$55.35
3	80	\$31.89	\$9.65	\$17.80	\$0.00	\$59.34
4	90	\$35.87	\$9.65	\$17.80	\$0.00	\$63.32

Notes:

Apprentice to Journeyworker Ratio:1:5

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
LABORER: CARPENTER TENDER <i>LABORERS - ZONE 2</i>	06/01/2024	\$38.53	\$9.65	\$18.40	\$0.00	\$66.58
	12/01/2024	\$39.86	\$9.65	\$18.40	\$0.00	\$67.91
	06/01/2025	\$41.25	\$9.65	\$18.40	\$0.00	\$69.30
	12/01/2025	\$42.63	\$9.65	\$18.40	\$0.00	\$70.68
	06/01/2026	\$44.07	\$9.65	\$18.40	\$0.00	\$72.12
	12/01/2026	\$45.51	\$9.65	\$18.40	\$0.00	\$73.56
	06/01/2027	\$46.96	\$9.65	\$18.40	\$0.00	\$75.01
	12/01/2027	\$48.41	\$9.65	\$18.40	\$0.00	\$76.46
	06/01/2028	\$49.91	\$9.65	\$18.40	\$0.00	\$77.96
	12/01/2028	\$51.41	\$9.65	\$18.40	\$0.00	\$79.46
For apprentice rates see "Apprentice- LABORER"						
LABORER: CEMENT FINISHER TENDER <i>LABORERS - ZONE 2</i>	06/01/2024	\$38.53	\$9.65	\$18.40	\$0.00	\$66.58
	12/01/2024	\$39.86	\$9.65	\$18.40	\$0.00	\$67.91
	06/01/2025	\$41.25	\$9.65	\$18.40	\$0.00	\$69.30
	12/01/2025	\$42.63	\$9.65	\$18.40	\$0.00	\$70.68
	06/01/2026	\$44.07	\$9.65	\$18.40	\$0.00	\$72.12
	12/01/2026	\$45.51	\$9.65	\$18.40	\$0.00	\$73.56
	06/01/2027	\$46.96	\$9.65	\$18.40	\$0.00	\$75.01
	12/01/2027	\$48.41	\$9.65	\$18.40	\$0.00	\$76.46
	06/01/2028	\$49.91	\$9.65	\$18.40	\$0.00	\$77.96
	12/01/2028	\$51.41	\$9.65	\$18.40	\$0.00	\$79.46
For apprentice rates see "Apprentice- LABORER"						
LABORER: HAZARDOUS WASTE/ASBESTOS REMOVER <i>LABORERS - ZONE 2</i>	12/01/2023	\$37.95	\$9.65	\$17.20	\$0.00	\$64.80
For apprentice rates see "Apprentice- LABORER"						
LABORER: MASON TENDER <i>LABORERS - ZONE 2</i>	06/01/2024	\$38.78	\$9.65	\$18.40	\$0.00	\$66.83
	12/01/2024	\$40.11	\$9.65	\$18.40	\$0.00	\$68.16
	06/01/2025	\$41.50	\$9.65	\$18.40	\$0.00	\$69.55
	12/01/2025	\$42.88	\$9.65	\$18.40	\$0.00	\$70.93
	06/01/2026	\$44.32	\$9.65	\$18.40	\$0.00	\$72.37
	12/01/2026	\$45.76	\$9.65	\$18.40	\$0.00	\$73.81
	06/01/2027	\$47.21	\$9.65	\$18.40	\$0.00	\$75.26
	12/01/2027	\$48.66	\$9.65	\$18.40	\$0.00	\$76.71
	06/01/2028	\$50.16	\$9.65	\$18.40	\$0.00	\$78.21
	12/01/2028	\$51.66	\$9.65	\$18.40	\$0.00	\$79.71
For apprentice rates see "Apprentice- LABORER"						
LABORER: MASON TENDER (HEAVY & HIGHWAY) <i>LABORERS - ZONE 2 (HEAVY & HIGHWAY)</i>	06/01/2024	\$38.78	\$9.65	\$17.80	\$0.00	\$66.23
	12/01/2024	\$40.11	\$9.65	\$17.80	\$0.00	\$67.56
	06/01/2025	\$41.50	\$9.65	\$17.80	\$0.00	\$68.95
	12/01/2025	\$42.88	\$9.65	\$17.80	\$0.00	\$70.33
	06/01/2026	\$44.32	\$9.65	\$17.80	\$0.00	\$71.77
	12/01/2026	\$45.76	\$9.65	\$17.80	\$0.00	\$73.21
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
LABORER: MULTI-TRADE TENDER <i>LABORERS - ZONE 2</i>	06/01/2024	\$38.53	\$9.65	\$18.40	\$0.00	\$66.58
	12/01/2024	\$39.86	\$9.65	\$18.40	\$0.00	\$67.91
	06/01/2025	\$41.25	\$9.65	\$18.40	\$0.00	\$69.30
	12/01/2025	\$42.63	\$9.65	\$18.40	\$0.00	\$70.68
	06/01/2026	\$44.07	\$9.65	\$18.40	\$0.00	\$72.12
	12/01/2026	\$45.51	\$9.65	\$18.40	\$0.00	\$73.56
	06/01/2027	\$46.96	\$9.65	\$18.40	\$0.00	\$75.01
	12/01/2027	\$48.41	\$9.65	\$18.40	\$0.00	\$76.46
	06/01/2028	\$49.91	\$9.65	\$18.40	\$0.00	\$77.96
	12/01/2028	\$51.41	\$9.65	\$18.40	\$0.00	\$79.46
For apprentice rates see "Apprentice- LABORER"						
LABORER: TREE REMOVER <i>LABORERS - ZONE 2</i>	06/01/2024	\$38.53	\$9.65	\$18.40	\$0.00	\$66.58
	12/01/2024	\$39.86	\$9.65	\$18.40	\$0.00	\$67.91
	06/01/2025	\$41.25	\$9.65	\$18.40	\$0.00	\$69.30
	12/01/2025	\$42.63	\$9.65	\$18.40	\$0.00	\$70.68
	06/01/2026	\$44.07	\$9.65	\$18.40	\$0.00	\$72.12
	12/01/2026	\$45.51	\$9.65	\$18.40	\$0.00	\$73.56
	06/01/2027	\$46.96	\$9.65	\$18.40	\$0.00	\$75.01
	12/01/2027	\$48.41	\$9.65	\$18.40	\$0.00	\$76.46
	06/01/2028	\$49.91	\$9.65	\$18.40	\$0.00	\$77.96
	12/01/2028	\$51.41	\$9.65	\$18.40	\$0.00	\$79.46
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 <i>LABORERS - ZONE 2</i>	06/01/2024	\$38.78	\$9.65	\$18.40	\$0.00	\$66.83
	12/01/2024	\$40.11	\$9.65	\$18.40	\$0.00	\$68.16
	06/01/2025	\$41.50	\$9.65	\$18.40	\$0.00	\$69.55
	12/01/2025	\$42.88	\$9.65	\$18.40	\$0.00	\$70.93
	06/01/2026	\$44.32	\$9.65	\$18.40	\$0.00	\$72.37
	12/01/2026	\$45.76	\$9.65	\$18.40	\$0.00	\$73.81
	06/01/2027	\$47.21	\$9.65	\$18.40	\$0.00	\$75.26
	12/01/2027	\$48.66	\$9.65	\$18.40	\$0.00	\$76.71
	06/01/2028	\$50.16	\$9.65	\$18.40	\$0.00	\$78.21
	12/01/2028	\$51.66	\$9.65	\$18.40	\$0.00	\$79.71
For apprentice rates see "Apprentice- LABORER"						
LASER BEAM OPERATOR (HEAVY & HIGHWAY) <i>LABORERS - ZONE 2 (HEAVY & HIGHWAY)</i>	06/01/2024	\$38.78	\$9.65	\$17.80	\$0.00	\$66.23
	12/01/2024	\$40.11	\$9.65	\$17.80	\$0.00	\$67.56
	06/01/2025	\$41.50	\$9.65	\$17.80	\$0.00	\$68.95
	12/01/2025	\$42.88	\$9.65	\$17.80	\$0.00	\$70.33
	06/01/2026	\$44.32	\$9.65	\$17.80	\$0.00	\$71.77
	12/01/2026	\$45.76	\$9.65	\$17.80	\$0.00	\$73.21
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
MARBLE & TILE FINISHERS <i>BRICKLAYERS LOCAL 3 - MARBLE & TILE</i>	08/01/2024	\$49.32	\$11.49	\$21.62	\$0.00	\$82.43
	02/01/2025	\$50.36	\$11.49	\$21.62	\$0.00	\$83.47
	08/01/2025	\$52.08	\$11.49	\$21.62	\$0.00	\$85.19
	02/01/2026	\$53.16	\$11.49	\$21.62	\$0.00	\$86.27
	08/01/2026	\$54.92	\$11.49	\$21.62	\$0.00	\$88.03
	02/01/2027	\$56.04	\$11.49	\$21.62	\$0.00	\$89.15

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - MARBLE & TILE FINISHER - Local 3 Marble & Tile

Effective Date - 08/01/2024

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.66	\$11.49	\$21.62	\$0.00	\$57.77
2	60	\$29.59	\$11.49	\$21.62	\$0.00	\$62.70
3	70	\$34.52	\$11.49	\$21.62	\$0.00	\$67.63
4	80	\$39.46	\$11.49	\$21.62	\$0.00	\$72.57
5	90	\$44.39	\$11.49	\$21.62	\$0.00	\$77.50

Effective Date - 02/01/2025

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$25.18	\$11.49	\$21.62	\$0.00	\$58.29
2	60	\$30.22	\$11.49	\$21.62	\$0.00	\$63.33
3	70	\$35.25	\$11.49	\$21.62	\$0.00	\$68.36
4	80	\$40.29	\$11.49	\$21.62	\$0.00	\$73.40
5	90	\$45.32	\$11.49	\$21.62	\$0.00	\$78.43

Notes:

Apprentice to Journeyworker Ratio:1:3

MARBLE MASONS, TILELAYERS & TERRAZZO MECH	08/01/2024	\$64.52	\$11.49	\$23.56	\$0.00	\$99.57
BRICKLAYERS LOCAL 3 - MARBLE & TILE	02/01/2025	\$65.82	\$11.49	\$23.56	\$0.00	\$100.87
	08/01/2025	\$67.97	\$11.49	\$23.56	\$0.00	\$103.02
	02/01/2026	\$69.32	\$11.49	\$23.56	\$0.00	\$104.37
	08/01/2026	\$71.52	\$11.49	\$23.56	\$0.00	\$106.57
	02/01/2027	\$72.92	\$11.49	\$23.56	\$0.00	\$107.97

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - MARBLE-TILE-TERRAZZO MECHANIC - Local 3 Marble & Tile

Effective Date - 08/01/2024

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$32.26	\$11.49	\$23.56	\$0.00	\$67.31
2	60	\$38.71	\$11.49	\$23.56	\$0.00	\$73.76
3	70	\$45.16	\$11.49	\$23.56	\$0.00	\$80.21
4	80	\$51.62	\$11.49	\$23.56	\$0.00	\$86.67
5	90	\$58.07	\$11.49	\$23.56	\$0.00	\$93.12

Effective Date - 02/01/2025

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$32.91	\$11.49	\$23.56	\$0.00	\$67.96
2	60	\$39.49	\$11.49	\$23.56	\$0.00	\$74.54
3	70	\$46.07	\$11.49	\$23.56	\$0.00	\$81.12
4	80	\$52.66	\$11.49	\$23.56	\$0.00	\$87.71
5	90	\$59.24	\$11.49	\$23.56	\$0.00	\$94.29

Notes:

Apprentice to Journeyworker Ratio:1:5

MECH. SWEEPER OPERATOR (ON CONST. SITES) <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2024	\$55.41	\$15.30	\$16.40	\$0.00	\$87.11
	12/01/2024	\$56.85	\$15.30	\$16.40	\$0.00	\$88.55
	06/01/2025	\$58.13	\$15.30	\$16.40	\$0.00	\$89.83
	12/01/2025	\$59.57	\$15.30	\$16.40	\$0.00	\$91.27
	06/01/2026	\$60.85	\$15.30	\$16.40	\$0.00	\$92.55
	12/01/2026	\$62.29	\$15.30	\$16.40	\$0.00	\$93.99

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

MECHANICS MAINTENANCE <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2024	\$55.41	\$15.30	\$16.40	\$0.00	\$87.11
	12/01/2024	\$56.85	\$15.30	\$16.40	\$0.00	\$88.55
	06/01/2025	\$58.13	\$15.30	\$16.40	\$0.00	\$89.83
	12/01/2025	\$59.57	\$15.30	\$16.40	\$0.00	\$91.27
	06/01/2026	\$60.85	\$15.30	\$16.40	\$0.00	\$92.55
	12/01/2026	\$62.29	\$15.30	\$16.40	\$0.00	\$93.99

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

MILLWRIGHT (Zone 2) <i>MILLWRIGHTS LOCAL 1121 - Zone 2</i>	01/01/2024	\$42.76	\$10.08	\$21.47	\$0.00	\$74.31
	01/06/2025	\$45.09	\$10.08	\$21.47	\$0.00	\$76.64
	01/05/2026	\$47.42	\$10.08	\$21.47	\$0.00	\$78.97

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - MILLWRIGHT - Local 1121 Zone 2

Effective Date - 01/01/2024

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$23.52	\$10.08	\$5.50	\$0.00	\$39.10
2	65	\$27.79	\$10.08	\$6.50	\$0.00	\$44.37
3	75	\$32.07	\$10.08	\$18.97	\$0.00	\$61.12
4	85	\$36.35	\$10.08	\$19.97	\$0.00	\$66.40

Effective Date - 01/06/2025

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$24.80	\$10.08	\$5.50	\$0.00	\$40.38
2	65	\$29.31	\$10.08	\$6.50	\$0.00	\$45.89
3	75	\$33.82	\$10.08	\$18.97	\$0.00	\$62.87
4	85	\$38.33	\$10.08	\$19.97	\$0.00	\$68.38

Notes: Step 1&2 Appr. indentured after 1/6/2020 receive no pension, but do receive annuity. (Step 1 \$5.72, Step 2 \$6.66)
Steps are 2,000 hours

Apprentice to Journeyworker Ratio:1:4

MORTAR MIXER LABORERS - ZONE 2	06/01/2024	\$38.78	\$9.65	\$18.40	\$0.00	\$66.83
	12/01/2024	\$40.11	\$9.65	\$18.40	\$0.00	\$68.16
	06/01/2025	\$41.50	\$9.65	\$18.40	\$0.00	\$69.55
	12/01/2025	\$42.88	\$9.65	\$18.40	\$0.00	\$70.93
	06/01/2026	\$44.32	\$9.65	\$18.40	\$0.00	\$72.37
	12/01/2026	\$45.76	\$9.65	\$18.40	\$0.00	\$73.81
	06/01/2027	\$47.21	\$9.65	\$18.40	\$0.00	\$75.26
	12/01/2027	\$48.66	\$9.65	\$18.40	\$0.00	\$76.71
	06/01/2028	\$50.16	\$9.65	\$18.40	\$0.00	\$78.21
	12/01/2028	\$51.66	\$9.65	\$18.40	\$0.00	\$79.71

For apprentice rates see "Apprentice- LABORER"

OILER (OTHER THAN TRUCK CRANES,GRADALLS) OPERATING ENGINEERS LOCAL 4	06/01/2024	\$24.71	\$15.30	\$16.40	\$0.00	\$56.41
	12/01/2024	\$25.37	\$15.30	\$16.40	\$0.00	\$57.07
	06/01/2025	\$25.97	\$15.30	\$16.40	\$0.00	\$57.67
	12/01/2025	\$26.63	\$15.30	\$16.40	\$0.00	\$58.33
	06/01/2026	\$27.22	\$15.30	\$16.40	\$0.00	\$58.92
	12/01/2026	\$27.89	\$15.30	\$16.40	\$0.00	\$59.59

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

OILER (TRUCK CRANES, GRADALLS) OPERATING ENGINEERS LOCAL 4	06/01/2024	\$30.28	\$15.30	\$16.40	\$0.00	\$61.98
	12/01/2024	\$31.08	\$15.30	\$16.40	\$0.00	\$62.78
	06/01/2025	\$31.80	\$15.30	\$16.40	\$0.00	\$63.50
	12/01/2025	\$32.60	\$15.30	\$16.40	\$0.00	\$64.30
	06/01/2026	\$33.32	\$15.30	\$16.40	\$0.00	\$65.02
	12/01/2026	\$34.12	\$15.30	\$16.40	\$0.00	\$65.82

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
OTHER POWER DRIVEN EQUIPMENT - CLASS II <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2024	\$55.41	\$15.30	\$16.40	\$0.00	\$87.11
	12/01/2024	\$56.85	\$15.30	\$16.40	\$0.00	\$88.55
	06/01/2025	\$58.13	\$15.30	\$16.40	\$0.00	\$89.83
	12/01/2025	\$59.57	\$15.30	\$16.40	\$0.00	\$91.27
	06/01/2026	\$60.85	\$15.30	\$16.40	\$0.00	\$92.55
	12/01/2026	\$62.29	\$15.30	\$16.40	\$0.00	\$93.99
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
PAINTER (BRIDGES/TANKS) <i>PAINTERS LOCAL 35 - ZONE 2</i>	07/01/2024	\$57.26	\$9.95	\$23.95	\$0.00	\$91.16
	01/01/2025	\$58.46	\$9.95	\$23.95	\$0.00	\$92.36

Apprentice - PAINTER Local 35 - BRIDGES/TANKS

Effective Date - 07/01/2024

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$28.63	\$9.95	\$0.00	\$0.00	\$38.58
2	55	\$31.49	\$9.95	\$6.66	\$0.00	\$48.10
3	60	\$34.36	\$9.95	\$7.26	\$0.00	\$51.57
4	65	\$37.22	\$9.95	\$7.87	\$0.00	\$55.04
5	70	\$40.08	\$9.95	\$20.32	\$0.00	\$70.35
6	75	\$42.95	\$9.95	\$20.93	\$0.00	\$73.83
7	80	\$45.81	\$9.95	\$21.53	\$0.00	\$77.29
8	90	\$51.53	\$9.95	\$22.74	\$0.00	\$84.22

Effective Date - 01/01/2025

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$29.23	\$9.95	\$0.00	\$0.00	\$39.18
2	55	\$32.15	\$9.95	\$6.66	\$0.00	\$48.76
3	60	\$35.08	\$9.95	\$7.26	\$0.00	\$52.29
4	65	\$38.00	\$9.95	\$7.87	\$0.00	\$55.82
5	70	\$40.92	\$9.95	\$20.32	\$0.00	\$71.19
6	75	\$43.85	\$9.95	\$20.93	\$0.00	\$74.73
7	80	\$46.77	\$9.95	\$21.53	\$0.00	\$78.25
8	90	\$52.61	\$9.95	\$22.74	\$0.00	\$85.30

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER (SPRAY OR SANDBLAST, NEW) *	07/01/2024	\$48.16	\$9.95	\$23.95	\$0.00	\$82.06
* If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used. <i>PAINTERS LOCAL 35 - ZONE 2</i>	01/01/2025	\$49.36	\$9.95	\$23.95	\$0.00	\$83.26

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - PAINTER Local 35 Zone 2 - Spray/Sandblast - New

Effective Date - 07/01/2024

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.08	\$9.95	\$0.00	\$0.00	\$34.03
2	55	\$26.49	\$9.95	\$6.66	\$0.00	\$43.10
3	60	\$28.90	\$9.95	\$7.26	\$0.00	\$46.11
4	65	\$31.30	\$9.95	\$7.87	\$0.00	\$49.12
5	70	\$33.71	\$9.95	\$20.32	\$0.00	\$63.98
6	75	\$36.12	\$9.95	\$20.93	\$0.00	\$67.00
7	80	\$38.53	\$9.95	\$21.53	\$0.00	\$70.01
8	90	\$43.34	\$9.95	\$22.74	\$0.00	\$76.03

Effective Date - 01/01/2025

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.68	\$9.95	\$0.00	\$0.00	\$34.63
2	55	\$27.15	\$9.95	\$6.66	\$0.00	\$43.76
3	60	\$29.62	\$9.95	\$7.26	\$0.00	\$46.83
4	65	\$32.08	\$9.95	\$7.87	\$0.00	\$49.90
5	70	\$34.55	\$9.95	\$20.32	\$0.00	\$64.82
6	75	\$37.02	\$9.95	\$20.93	\$0.00	\$67.90
7	80	\$39.49	\$9.95	\$21.53	\$0.00	\$70.97
8	90	\$44.42	\$9.95	\$22.74	\$0.00	\$77.11

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER (SPRAY OR SANDBLAST, REPAINT)	07/01/2024	\$46.22	\$9.95	\$23.95	\$0.00	\$80.12
PAINTERS LOCAL 35 - ZONE 2	01/01/2025	\$47.42	\$9.95	\$23.95	\$0.00	\$81.32

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - PAINTER Local 35 Zone 2 - Spray/Sandblast - Repaint

Effective Date - 07/01/2024

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.11	\$9.95	\$0.00	\$0.00	\$33.06
2	55	\$25.42	\$9.95	\$6.66	\$0.00	\$42.03
3	60	\$27.73	\$9.95	\$7.26	\$0.00	\$44.94
4	65	\$30.04	\$9.95	\$7.87	\$0.00	\$47.86
5	70	\$32.35	\$9.95	\$20.32	\$0.00	\$62.62
6	75	\$34.67	\$9.95	\$20.93	\$0.00	\$65.55
7	80	\$36.98	\$9.95	\$21.53	\$0.00	\$68.46
8	90	\$41.60	\$9.95	\$22.74	\$0.00	\$74.29

Effective Date - 01/01/2025

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.71	\$9.95	\$0.00	\$0.00	\$33.66
2	55	\$26.08	\$9.95	\$6.66	\$0.00	\$42.69
3	60	\$28.45	\$9.95	\$7.26	\$0.00	\$45.66
4	65	\$30.82	\$9.95	\$7.87	\$0.00	\$48.64
5	70	\$33.19	\$9.95	\$20.32	\$0.00	\$63.46
6	75	\$35.57	\$9.95	\$20.93	\$0.00	\$66.45
7	80	\$37.94	\$9.95	\$21.53	\$0.00	\$69.42
8	90	\$42.68	\$9.95	\$22.74	\$0.00	\$75.37

Notes:
Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER / TAPER (BRUSH, NEW) *	07/01/2024	\$46.76	\$9.95	\$23.95	\$0.00	\$80.66
* If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used. PAINTERS LOCAL 35 - ZONE 2	01/01/2025	\$47.96	\$9.95	\$23.95	\$0.00	\$81.86

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - PAINTER - Local 35 Zone 2 - BRUSH NEW

Effective Date - 07/01/2024

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.38	\$9.95	\$0.00	\$0.00	\$33.33
2	55	\$25.72	\$9.95	\$6.66	\$0.00	\$42.33
3	60	\$28.06	\$9.95	\$7.26	\$0.00	\$45.27
4	65	\$30.39	\$9.95	\$7.87	\$0.00	\$48.21
5	70	\$32.73	\$9.95	\$20.32	\$0.00	\$63.00
6	75	\$35.07	\$9.95	\$20.93	\$0.00	\$65.95
7	80	\$37.41	\$9.95	\$21.53	\$0.00	\$68.89
8	90	\$42.08	\$9.95	\$22.74	\$0.00	\$74.77

Effective Date - 01/01/2025

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.98	\$9.95	\$0.00	\$0.00	\$33.93
2	55	\$26.38	\$9.95	\$6.66	\$0.00	\$42.99
3	60	\$28.78	\$9.95	\$7.26	\$0.00	\$45.99
4	65	\$31.17	\$9.95	\$7.87	\$0.00	\$48.99
5	70	\$33.57	\$9.95	\$20.32	\$0.00	\$63.84
6	75	\$35.97	\$9.95	\$20.93	\$0.00	\$66.85
7	80	\$38.37	\$9.95	\$21.53	\$0.00	\$69.85
8	90	\$43.16	\$9.95	\$22.74	\$0.00	\$75.85

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER / TAPER (BRUSH, REPAINT)	07/01/2024	\$44.82	\$9.95	\$23.95	\$0.00	\$78.72
PAINTERS LOCAL 35 - ZONE 2	01/01/2025	\$46.02	\$9.95	\$23.95	\$0.00	\$79.92

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - PAINTER Local 35 Zone 2 - BRUSH REPAINT

Effective Date - 07/01/2024

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.41	\$9.95	\$0.00	\$0.00	\$32.36
2	55	\$24.65	\$9.95	\$6.66	\$0.00	\$41.26
3	60	\$26.89	\$9.95	\$7.26	\$0.00	\$44.10
4	65	\$29.13	\$9.95	\$7.87	\$0.00	\$46.95
5	70	\$31.37	\$9.95	\$20.32	\$0.00	\$61.64
6	75	\$33.62	\$9.95	\$20.93	\$0.00	\$64.50
7	80	\$35.86	\$9.95	\$21.53	\$0.00	\$67.34
8	90	\$40.34	\$9.95	\$22.74	\$0.00	\$73.03

Effective Date - 01/01/2025

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.01	\$9.95	\$0.00	\$0.00	\$32.96
2	55	\$25.31	\$9.95	\$6.66	\$0.00	\$41.92
3	60	\$27.61	\$9.95	\$7.26	\$0.00	\$44.82
4	65	\$29.91	\$9.95	\$7.87	\$0.00	\$47.73
5	70	\$32.21	\$9.95	\$20.32	\$0.00	\$62.48
6	75	\$34.52	\$9.95	\$20.93	\$0.00	\$65.40
7	80	\$36.82	\$9.95	\$21.53	\$0.00	\$68.30
8	90	\$41.42	\$9.95	\$22.74	\$0.00	\$74.11

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER TRAFFIC MARKINGS (HEAVY/HIGHWAY)	06/01/2024	\$38.53	\$9.65	\$17.80	\$0.00	\$65.98
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	12/01/2024	\$39.86	\$9.65	\$17.80	\$0.00	\$67.31
	06/01/2025	\$41.25	\$9.65	\$17.80	\$0.00	\$68.70
	12/01/2025	\$42.63	\$9.65	\$17.80	\$0.00	\$70.08
	06/01/2026	\$44.07	\$9.65	\$17.80	\$0.00	\$71.52
	12/01/2026	\$45.51	\$9.65	\$17.80	\$0.00	\$72.96

For apprentice rates see "Apprentice- LABORER (Heavy and Highway)

PANEL & PICKUP TRUCKS DRIVER	06/01/2024	\$39.78	\$15.07	\$18.67	\$0.00	\$73.52
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	12/01/2024	\$39.78	\$15.07	\$20.17	\$0.00	\$75.02
	01/01/2025	\$39.78	\$15.57	\$20.17	\$0.00	\$75.52
	06/01/2025	\$40.78	\$15.57	\$20.17	\$0.00	\$76.52
	12/01/2025	\$40.78	\$15.57	\$21.78	\$0.00	\$78.13
	01/01/2026	\$40.78	\$16.17	\$21.78	\$0.00	\$78.73
	06/01/2026	\$41.78	\$16.17	\$21.78	\$0.00	\$79.73
	12/01/2026	\$41.78	\$16.17	\$23.52	\$0.00	\$81.47
	01/01/2027	\$41.78	\$16.77	\$23.52	\$0.00	\$82.07

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
PIER AND DOCK CONSTRUCTOR (UNDERPINNING AND DECK) <i>PILE DRIVER LOCAL 56 (ZONE 2)</i> For apprentice rates see "Apprentice- PILE DRIVER"	08/01/2020	\$46.11	\$9.40	\$23.12	\$0.00	\$78.63
PILE DRIVER <i>PILE DRIVER LOCAL 56 (ZONE 2)</i>	08/01/2020	\$46.11	\$9.40	\$23.12	\$0.00	\$78.63

Apprentice - PILE DRIVER - Local 56 Zone 2

Effective Date - 08/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

Notes: Apprentice wages shall be no less than the following Steps;
(Same as set in Zone 1)
1\$57.06/2\$61.96/3\$66.87/4\$69.32/5\$71.78/6\$71.78/7\$76.68/8\$76.68

Apprentice to Journeyworker Ratio:1:5

PIPELAYER <i>LABORERS - ZONE 2</i>	06/01/2024	\$38.78	\$9.65	\$18.40	\$0.00	\$66.83
	12/01/2024	\$40.11	\$9.65	\$18.40	\$0.00	\$68.16
	06/01/2025	\$41.50	\$9.65	\$18.40	\$0.00	\$69.55
	12/01/2025	\$42.88	\$9.65	\$18.40	\$0.00	\$70.93
	06/01/2026	\$44.32	\$9.65	\$18.40	\$0.00	\$72.37
	12/01/2026	\$45.76	\$9.65	\$18.40	\$0.00	\$73.81
	06/01/2027	\$47.21	\$9.65	\$18.40	\$0.00	\$75.26
	12/01/2027	\$48.66	\$9.65	\$18.40	\$0.00	\$76.71
	06/01/2028	\$50.16	\$9.65	\$18.40	\$0.00	\$78.21
	12/01/2028	\$51.66	\$9.65	\$18.40	\$0.00	\$79.71

For apprentice rates see "Apprentice- LABORER"

PIPELAYER (HEAVY & HIGHWAY) <i>LABORERS - ZONE 2 (HEAVY & HIGHWAY)</i>	06/01/2024	\$38.78	\$9.65	\$17.80	\$0.00	\$66.23
	12/01/2024	\$40.11	\$9.65	\$17.80	\$0.00	\$67.56
	06/01/2025	\$41.50	\$9.65	\$17.80	\$0.00	\$68.95
	12/01/2025	\$42.88	\$9.65	\$17.80	\$0.00	\$70.33
	06/01/2026	\$44.32	\$9.65	\$17.80	\$0.00	\$71.77
	12/01/2026	\$45.76	\$9.65	\$17.80	\$0.00	\$73.21

For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"

PLUMBER & PIPEFITTER <i>PLUMBERS LOCAL 4</i>	09/01/2024	\$55.35	\$9.90	\$17.42	\$0.00	\$82.67
	03/01/2025	\$56.75	\$9.90	\$17.42	\$0.00	\$84.07
	09/01/2025	\$58.15	\$9.90	\$17.42	\$0.00	\$85.47
	03/01/2026	\$59.55	\$9.90	\$17.42	\$0.00	\$86.87

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - PLUMBER/PIPEFITTER - Local 4

Effective Date - 09/01/2024

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$22.14	\$9.90	\$0.00	\$0.00	\$32.04
2	50	\$27.68	\$9.90	\$0.00	\$0.00	\$37.58
3	60	\$33.21	\$9.90	\$0.00	\$0.00	\$43.11
4	70	\$38.75	\$9.90	\$7.71	\$0.00	\$56.36
5	80	\$44.28	\$9.90	\$7.71	\$0.00	\$61.89

Effective Date - 03/01/2025

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$22.70	\$9.90	\$0.00	\$0.00	\$32.60
2	50	\$28.38	\$9.90	\$0.00	\$0.00	\$38.28
3	60	\$34.05	\$9.90	\$0.00	\$0.00	\$43.95
4	70	\$39.73	\$9.90	\$7.71	\$0.00	\$57.34
5	80	\$45.40	\$9.90	\$7.71	\$0.00	\$63.01

Notes:

Steps - 2000 hrs; Step 4 w/lic 75%, Step 5 w/lic 85%
Step 4 w/lic \$52.59, Step 5 w/lic \$57.44

Apprentice to Journeyworker Ratio:1:3

PNEUMATIC CONTROLS (TEMP.) <i>PLUMBERS LOCAL 4</i>	09/01/2024	\$55.35	\$9.90	\$17.42	\$0.00	\$82.67
	03/01/2025	\$56.75	\$9.90	\$17.42	\$0.00	\$84.07
	09/01/2025	\$58.15	\$9.90	\$17.42	\$0.00	\$85.47
	03/01/2026	\$59.55	\$9.90	\$17.42	\$0.00	\$86.87

For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"

PNEUMATIC DRILL/TOOL OPERATOR <i>LABORERS - ZONE 2</i>	06/01/2024	\$39.28	\$9.65	\$18.40	\$0.00	\$67.33
	12/01/2024	\$40.61	\$9.65	\$18.40	\$0.00	\$68.66
	06/01/2025	\$42.00	\$9.65	\$18.40	\$0.00	\$70.05
	12/01/2025	\$43.38	\$9.65	\$18.40	\$0.00	\$71.43
	06/01/2026	\$44.82	\$9.65	\$18.40	\$0.00	\$72.87
	12/01/2026	\$46.26	\$9.65	\$18.40	\$0.00	\$74.31
	06/01/2027	\$47.71	\$9.65	\$18.40	\$0.00	\$75.76
	12/01/2027	\$49.16	\$9.65	\$18.40	\$0.00	\$77.21
	06/01/2028	\$50.66	\$9.65	\$18.40	\$0.00	\$78.71
	12/01/2028	\$52.16	\$9.65	\$18.40	\$0.00	\$80.21

For apprentice rates see "Apprentice- LABORER"

PNEUMATIC DRILL/TOOL OPERATOR (HEAVY & HIGHWAY) <i>LABORERS - ZONE 2 (HEAVY & HIGHWAY)</i>	06/01/2024	\$38.78	\$9.65	\$17.80	\$0.00	\$66.23
	12/01/2024	\$40.11	\$9.65	\$17.80	\$0.00	\$67.56
	06/01/2025	\$41.50	\$9.65	\$17.80	\$0.00	\$68.95
	12/01/2025	\$42.88	\$9.65	\$17.80	\$0.00	\$70.33
	06/01/2026	\$44.32	\$9.65	\$17.80	\$0.00	\$71.77
	12/01/2026	\$45.76	\$9.65	\$17.80	\$0.00	\$73.21

For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
POWDERMAN & BLASTER <i>LABORERS - ZONE 2</i>	06/01/2024	\$39.53	\$9.65	\$18.40	\$0.00	\$67.58
	12/01/2024	\$40.86	\$9.65	\$18.40	\$0.00	\$68.91
	06/01/2025	\$42.25	\$9.65	\$18.40	\$0.00	\$70.30
	12/01/2025	\$43.63	\$9.65	\$18.40	\$0.00	\$71.68
	06/01/2026	\$45.07	\$9.65	\$18.40	\$0.00	\$73.12
	12/01/2026	\$46.51	\$9.65	\$18.40	\$0.00	\$74.56
	06/01/2027	\$47.96	\$9.65	\$18.40	\$0.00	\$76.01
	12/01/2027	\$49.41	\$9.65	\$18.40	\$0.00	\$77.46
	06/01/2028	\$50.91	\$9.65	\$18.40	\$0.00	\$78.96
	12/01/2028	\$52.41	\$9.65	\$18.40	\$0.00	\$80.46
For apprentice rates see "Apprentice- LABORER"						
POWDERMAN & BLASTER (HEAVY & HIGHWAY) <i>LABORERS - ZONE 2 (HEAVY & HIGHWAY)</i>	06/01/2024	\$39.53	\$9.40	\$17.55	\$0.00	\$66.48
	12/01/2024	\$40.86	\$9.40	\$17.55	\$0.00	\$67.81
	06/01/2025	\$42.25	\$9.40	\$17.55	\$0.00	\$69.20
	12/01/2025	\$43.63	\$9.40	\$17.55	\$0.00	\$70.58
	06/01/2026	\$45.07	\$9.40	\$17.55	\$0.00	\$72.02
	12/01/2026	\$46.51	\$9.40	\$17.55	\$0.00	\$73.46
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
POWER SHOVEL/DERRICK/TRENCHING MACHINE <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2024	\$56.03	\$15.30	\$16.40	\$0.00	\$87.73
	12/01/2024	\$57.48	\$15.30	\$16.40	\$0.00	\$89.18
	06/01/2025	\$58.78	\$15.30	\$16.40	\$0.00	\$90.48
	12/01/2025	\$60.23	\$15.30	\$16.40	\$0.00	\$91.93
	06/01/2026	\$61.53	\$15.30	\$16.40	\$0.00	\$93.23
	12/01/2026	\$62.98	\$15.30	\$16.40	\$0.00	\$94.68
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
PUMP OPERATOR (CONCRETE) <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2024	\$55.41	\$15.30	\$16.40	\$0.00	\$87.11
	12/01/2024	\$56.85	\$15.30	\$16.40	\$0.00	\$88.55
	06/01/2025	\$58.13	\$15.30	\$16.40	\$0.00	\$89.83
	12/01/2025	\$59.57	\$15.30	\$16.40	\$0.00	\$91.27
	06/01/2026	\$60.85	\$15.30	\$16.40	\$0.00	\$92.55
	12/01/2026	\$62.29	\$15.30	\$16.40	\$0.00	\$93.99
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
PUMP OPERATOR (DEWATERING, OTHER) <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2024	\$36.17	\$15.30	\$16.40	\$0.00	\$67.87
	12/01/2024	\$37.12	\$15.30	\$16.40	\$0.00	\$68.82
	06/01/2025	\$37.97	\$15.30	\$16.40	\$0.00	\$69.67
	12/01/2025	\$38.92	\$15.30	\$16.40	\$0.00	\$70.62
	06/01/2026	\$39.78	\$15.30	\$16.40	\$0.00	\$71.48
	12/01/2026	\$40.73	\$15.30	\$16.40	\$0.00	\$72.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
READY-MIX CONCRETE DRIVER <i>TEAMSTERS 170 - Dauphinais (Bellingham)</i>	01/01/2024	\$27.00	\$10.76	\$5.45	\$0.00	\$43.21
	12/01/2024	\$27.60	\$11.26	\$6.15	\$0.00	\$45.01
	01/01/2025	\$27.60	\$11.26	\$6.15	\$0.00	\$45.01

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
RECLAIMERS <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2024	\$55.41	\$15.30	\$16.40	\$0.00	\$87.11
	12/01/2024	\$56.85	\$15.30	\$16.40	\$0.00	\$88.55
	06/01/2025	\$58.13	\$15.30	\$16.40	\$0.00	\$89.83
	12/01/2025	\$59.57	\$15.30	\$16.40	\$0.00	\$91.27
	06/01/2026	\$60.85	\$15.30	\$16.40	\$0.00	\$92.55
	12/01/2026	\$62.29	\$15.30	\$16.40	\$0.00	\$93.99
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
RIDE-ON MOTORIZED BUGGY OPERATOR <i>LABORERS - ZONE 2</i>	06/01/2024	\$38.78	\$9.65	\$18.40	\$0.00	\$66.83
	12/01/2024	\$40.11	\$9.65	\$18.40	\$0.00	\$68.16
	06/01/2025	\$41.50	\$9.65	\$18.40	\$0.00	\$69.55
	12/01/2025	\$42.88	\$9.65	\$18.40	\$0.00	\$70.93
	06/01/2026	\$44.32	\$9.65	\$18.40	\$0.00	\$72.37
	12/01/2026	\$45.76	\$9.65	\$18.40	\$0.00	\$73.81
	06/01/2027	\$47.21	\$9.65	\$18.40	\$0.00	\$75.26
	12/01/2027	\$48.66	\$9.65	\$18.40	\$0.00	\$76.71
	06/01/2028	\$50.16	\$9.65	\$18.40	\$0.00	\$78.21
12/01/2028	\$51.66	\$9.65	\$18.40	\$0.00	\$79.71	
For apprentice rates see "Apprentice- LABORER"						
ROLLER/SPREADER/MULCHING MACHINE <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2024	\$55.41	\$15.30	\$16.40	\$0.00	\$87.11
	12/01/2024	\$56.85	\$15.30	\$16.40	\$0.00	\$88.55
	06/01/2025	\$58.13	\$15.30	\$16.40	\$0.00	\$89.83
	12/01/2025	\$59.57	\$15.30	\$16.40	\$0.00	\$91.27
	06/01/2026	\$60.85	\$15.30	\$16.40	\$0.00	\$92.55
	12/01/2026	\$62.29	\$15.30	\$16.40	\$0.00	\$93.99
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
ROOFER (Inc.Roofer Waterproofing &Roofer Damproofg) <i>ROOFERS LOCAL 33</i>	08/01/2024	\$51.53	\$12.78	\$21.45	\$0.00	\$85.76
	02/01/2025	\$52.78	\$12.78	\$21.45	\$0.00	\$87.01
	08/01/2025	\$54.28	\$12.78	\$21.45	\$0.00	\$88.51
	02/01/2026	\$55.53	\$12.78	\$21.45	\$0.00	\$89.76

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - ROOFER - Local 33

Effective Date - 08/01/2024

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$25.77	\$12.78	\$6.21	\$0.00	\$44.76
2	60	\$30.92	\$12.78	\$21.45	\$0.00	\$65.15
3	65	\$33.49	\$12.78	\$21.45	\$0.00	\$67.72
4	75	\$38.65	\$12.78	\$21.45	\$0.00	\$72.88
5	85	\$43.80	\$12.78	\$21.45	\$0.00	\$78.03

Effective Date - 02/01/2025

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$26.39	\$12.78	\$6.21	\$0.00	\$45.38
2	60	\$31.67	\$12.78	\$21.45	\$0.00	\$65.90
3	65	\$34.31	\$12.78	\$21.45	\$0.00	\$68.54
4	75	\$39.59	\$12.78	\$21.45	\$0.00	\$73.82
5	85	\$44.86	\$12.78	\$21.45	\$0.00	\$79.09

Notes: ** 1:5, 2:6-10, the 1:10; Reroofing: 1:4, then 1:1
 Step 1 is 2000 hrs.; Steps 2-5 are 1000 hrs.
 (Hot Pitch Mechanics' receive \$1.00 hr. above ROOFER)

Apprentice to Journeyworker Ratio:**

ROOFER SLATE / TILE / PRECAST CONCRETE	08/01/2024	\$51.78	\$12.78	\$21.45	\$0.00	\$86.01
ROOFERS LOCAL 33	02/01/2025	\$53.03	\$12.78	\$21.45	\$0.00	\$87.26
	08/01/2025	\$54.53	\$12.78	\$21.45	\$0.00	\$88.76
	02/01/2026	\$55.78	\$12.78	\$21.45	\$0.00	\$90.01

For apprentice rates see "Apprentice- ROOFER"

SHEETMETAL WORKER	07/01/2024	\$40.98	\$12.20	\$18.74	\$2.13	\$74.05
SHEETMETAL WORKERS LOCAL 63	01/01/2025	\$42.23	\$12.20	\$18.74	\$2.13	\$75.30

Apprentice - SHEET METAL WORKER - Local 63

Effective Date - 07/01/2024

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	45	\$18.44	\$5.49	\$4.86	\$0.85	\$29.64
2	50	\$20.49	\$6.10	\$5.40	\$0.94	\$32.93
3	55	\$22.54	\$6.71	\$9.71	\$1.15	\$40.11
4	60	\$24.59	\$7.32	\$9.71	\$1.23	\$42.85
5	65	\$26.64	\$7.93	\$9.71	\$1.31	\$45.59
6	70	\$28.69	\$8.54	\$9.71	\$1.39	\$48.33
7	75	\$30.74	\$9.15	\$9.71	\$1.47	\$51.07
8	80	\$32.78	\$9.76	\$17.66	\$1.78	\$61.98
9	85	\$34.83	\$10.37	\$17.66	\$1.86	\$64.72
10	90	\$36.88	\$10.98	\$17.66	\$1.94	\$67.46

Effective Date - 01/01/2025

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	45	\$19.00	\$5.49	\$4.86	\$0.85	\$30.20
2	50	\$21.12	\$6.10	\$5.40	\$0.94	\$33.56
3	55	\$23.23	\$6.71	\$9.71	\$1.15	\$40.80
4	60	\$25.34	\$7.32	\$9.71	\$1.23	\$43.60
5	65	\$27.45	\$7.93	\$9.71	\$1.31	\$46.40
6	70	\$29.56	\$8.54	\$9.71	\$1.39	\$49.20
7	75	\$31.67	\$9.15	\$9.71	\$1.47	\$52.00
8	80	\$33.78	\$9.76	\$17.66	\$1.78	\$62.98
9	85	\$35.90	\$10.37	\$17.66	\$1.86	\$65.79
10	90	\$38.01	\$10.98	\$17.66	\$1.94	\$68.59

Notes:

Apprentice to Journeyworker Ratio:1:3

SPECIALIZED EARTH MOVING EQUIP < 35 TONS	06/01/2024	\$40.24	\$15.07	\$18.67	\$0.00	\$73.98
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	12/01/2024	\$40.24	\$15.07	\$20.17	\$0.00	\$75.48
	01/01/2025	\$40.24	\$15.57	\$20.17	\$0.00	\$75.98
	06/01/2025	\$41.24	\$15.57	\$20.17	\$0.00	\$76.98
	12/01/2025	\$41.24	\$15.57	\$21.78	\$0.00	\$78.59
	01/01/2026	\$41.24	\$16.17	\$21.78	\$0.00	\$79.19
	06/01/2026	\$42.24	\$16.17	\$21.78	\$0.00	\$80.19
	12/01/2026	\$42.24	\$16.17	\$23.52	\$0.00	\$81.93
	01/01/2027	\$42.24	\$16.77	\$23.52	\$0.00	\$82.53

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
SPECIALIZED EARTH MOVING EQUIP > 35 TONS <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	06/01/2024	\$40.53	\$15.07	\$18.67	\$0.00	\$74.27
	12/01/2024	\$40.53	\$15.07	\$20.17	\$0.00	\$75.77
	01/01/2025	\$40.53	\$15.57	\$20.17	\$0.00	\$76.27
	06/01/2025	\$41.53	\$15.57	\$20.17	\$0.00	\$77.27
	12/01/2025	\$41.53	\$15.57	\$21.78	\$0.00	\$78.88
	01/01/2026	\$41.53	\$16.17	\$21.78	\$0.00	\$79.48
	06/01/2026	\$42.53	\$16.17	\$21.78	\$0.00	\$80.48
	12/01/2026	\$42.53	\$16.17	\$23.52	\$0.00	\$82.22
	01/01/2027	\$42.53	\$16.77	\$23.52	\$0.00	\$82.82
SPRINKLER FITTER <i>SPRINKLER FITTERS LOCAL 550 - (Section A) Zone 1</i>	03/01/2024	\$69.04	\$11.51	\$23.30	\$0.00	\$103.85
	10/01/2024	\$70.84	\$11.51	\$23.30	\$0.00	\$105.65
	03/01/2025	\$72.64	\$11.51	\$23.30	\$0.00	\$107.45

Apprentice - SPRINKLER FITTER - Local 550 (Section A) Zone 1

Effective Date - 03/01/2024

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	\$24.16	\$11.51	\$12.90	\$0.00	\$48.57
2	40	\$27.62	\$11.51	\$13.70	\$0.00	\$52.83
3	45	\$31.07	\$11.51	\$14.50	\$0.00	\$57.08
4	50	\$34.52	\$11.51	\$15.30	\$0.00	\$61.33
5	55	\$37.97	\$11.51	\$16.10	\$0.00	\$65.58
6	60	\$41.42	\$11.51	\$16.90	\$0.00	\$69.83
7	65	\$44.88	\$11.51	\$17.70	\$0.00	\$74.09
8	70	\$48.33	\$11.51	\$18.50	\$0.00	\$78.34
9	75	\$51.78	\$11.51	\$19.30	\$0.00	\$82.59
10	80	\$55.23	\$11.51	\$20.10	\$0.00	\$86.84

Effective Date - 10/01/2024

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	\$24.79	\$11.51	\$12.90	\$0.00	\$49.20
2	40	\$28.34	\$11.51	\$13.70	\$0.00	\$53.55
3	45	\$31.88	\$11.51	\$14.50	\$0.00	\$57.89
4	50	\$35.42	\$11.51	\$15.30	\$0.00	\$62.23
5	55	\$38.96	\$11.51	\$16.10	\$0.00	\$66.57
6	60	\$42.50	\$11.51	\$16.90	\$0.00	\$70.91
7	65	\$46.05	\$11.51	\$17.70	\$0.00	\$75.26
8	70	\$49.59	\$11.51	\$18.50	\$0.00	\$79.60
9	75	\$53.13	\$11.51	\$19.30	\$0.00	\$83.94
10	80	\$56.67	\$11.51	\$20.10	\$0.00	\$88.28

Notes: Apprentice entered prior 9/30/10:
40/45/50/55/60/65/70/75/80/85
Steps are 850 hours

Apprentice to Journeyworker Ratio:1:3

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
STEAM BOILER OPERATOR <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2024	\$55.41	\$15.30	\$16.40	\$0.00	\$87.11
	12/01/2024	\$56.85	\$15.30	\$16.40	\$0.00	\$88.55
	06/01/2025	\$58.13	\$15.30	\$16.40	\$0.00	\$89.83
	12/01/2025	\$59.57	\$15.30	\$16.40	\$0.00	\$91.27
	06/01/2026	\$60.85	\$15.30	\$16.40	\$0.00	\$92.55
	12/01/2026	\$62.29	\$15.30	\$16.40	\$0.00	\$93.99
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
TAMPERS, SELF-PROPELLED OR TRACTOR DRAWN <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2024	\$55.41	\$15.30	\$16.40	\$0.00	\$87.11
	12/01/2024	\$56.85	\$15.30	\$16.40	\$0.00	\$88.55
	06/01/2025	\$58.13	\$15.30	\$16.40	\$0.00	\$89.83
	12/01/2025	\$59.57	\$15.30	\$16.40	\$0.00	\$91.27
	06/01/2026	\$60.85	\$15.30	\$16.40	\$0.00	\$92.55
	12/01/2026	\$62.29	\$15.30	\$16.40	\$0.00	\$93.99
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
TERRAZZO FINISHERS <i>BRICKLAYERS LOCAL 3 - MARBLE & TILE</i>	08/01/2024	\$63.44	\$11.49	\$23.59	\$0.00	\$98.52
	02/01/2025	\$64.74	\$11.49	\$23.59	\$0.00	\$99.82
	08/01/2025	\$66.89	\$11.49	\$23.59	\$0.00	\$101.97
	02/01/2026	\$68.24	\$11.49	\$23.59	\$0.00	\$103.32
	08/01/2026	\$70.44	\$11.49	\$23.59	\$0.00	\$105.52
	02/01/2027	\$71.84	\$11.49	\$23.59	\$0.00	\$106.92

Apprentice - TERRAZZO FINISHER - Local 3 Marble & Tile

Effective Date - 08/01/2024

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$31.72	\$11.49	\$23.59	\$0.00	\$66.80
2	60	\$38.06	\$11.49	\$23.59	\$0.00	\$73.14
3	70	\$44.41	\$11.49	\$23.59	\$0.00	\$79.49
4	80	\$50.75	\$11.49	\$23.59	\$0.00	\$85.83
5	90	\$57.10	\$11.49	\$23.59	\$0.00	\$92.18

Effective Date - 02/01/2025

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$32.37	\$11.49	\$23.59	\$0.00	\$67.45
2	60	\$38.84	\$11.49	\$23.59	\$0.00	\$73.92
3	70	\$45.32	\$11.49	\$23.59	\$0.00	\$80.40
4	80	\$51.79	\$11.49	\$23.59	\$0.00	\$86.87
5	90	\$58.27	\$11.49	\$23.59	\$0.00	\$93.35

Notes:

Apprentice to Journeyworker Ratio:1:3

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
TEST BORING DRILLER <i>LABORERS - FOUNDATION AND MARINE</i>	06/01/2024	\$49.81	\$9.65	\$18.22	\$0.00	\$77.68
	12/01/2024	\$51.28	\$9.65	\$18.22	\$0.00	\$79.15
	06/01/2025	\$52.78	\$9.65	\$18.22	\$0.00	\$80.65
	12/01/2025	\$54.28	\$9.65	\$18.22	\$0.00	\$82.15
	06/01/2026	\$55.83	\$9.65	\$18.22	\$0.00	\$83.70
	12/01/2026	\$57.33	\$9.65	\$18.22	\$0.00	\$85.20
	For apprentice rates see "Apprentice- LABORER"					
TEST BORING DRILLER HELPER <i>LABORERS - FOUNDATION AND MARINE</i>	06/01/2024	\$45.60	\$9.65	\$18.22	\$0.00	\$73.47
	12/01/2024	\$47.07	\$9.65	\$18.22	\$0.00	\$74.94
	06/01/2025	\$48.57	\$9.65	\$18.22	\$0.00	\$76.44
	12/01/2025	\$50.07	\$9.65	\$18.22	\$0.00	\$77.94
	06/01/2026	\$51.62	\$9.65	\$18.22	\$0.00	\$79.49
	12/01/2026	\$53.12	\$9.65	\$18.22	\$0.00	\$80.99
	For apprentice rates see "Apprentice- LABORER"					
TEST BORING LABORER <i>LABORERS - FOUNDATION AND MARINE</i>	06/01/2024	\$45.48	\$9.65	\$18.22	\$0.00	\$73.35
	12/01/2024	\$46.95	\$9.65	\$18.22	\$0.00	\$74.82
	06/01/2025	\$48.45	\$9.65	\$18.22	\$0.00	\$76.32
	12/01/2025	\$49.95	\$9.65	\$18.22	\$0.00	\$77.82
	06/01/2026	\$51.50	\$9.65	\$18.22	\$0.00	\$79.37
	12/01/2026	\$53.00	\$9.65	\$18.22	\$0.00	\$80.87
	For apprentice rates see "Apprentice- LABORER"					
TRACTORS/PORTABLE STEAM GENERATORS <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2024	\$55.41	\$15.30	\$16.40	\$0.00	\$87.11
	12/01/2024	\$56.85	\$15.30	\$16.40	\$0.00	\$88.55
	06/01/2025	\$58.13	\$15.30	\$16.40	\$0.00	\$89.83
	12/01/2025	\$59.57	\$15.30	\$16.40	\$0.00	\$91.27
	06/01/2026	\$60.85	\$15.30	\$16.40	\$0.00	\$92.55
	12/01/2026	\$62.29	\$15.30	\$16.40	\$0.00	\$93.99
	For apprentice rates see "Apprentice- OPERATING ENGINEERS"					
TRAILERS FOR EARTH MOVING EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	06/01/2024	\$40.82	\$15.07	\$18.67	\$0.00	\$74.56
	12/01/2024	\$40.82	\$15.07	\$20.17	\$0.00	\$76.06
	01/01/2025	\$40.82	\$15.57	\$20.17	\$0.00	\$76.56
	06/01/2025	\$41.82	\$15.57	\$20.17	\$0.00	\$77.56
	12/01/2025	\$41.82	\$15.57	\$21.78	\$0.00	\$79.17
	01/01/2026	\$41.82	\$16.17	\$21.78	\$0.00	\$79.77
	06/01/2026	\$42.82	\$16.17	\$21.78	\$0.00	\$80.77
	12/01/2026	\$42.82	\$16.17	\$23.52	\$0.00	\$82.51
	01/01/2027	\$42.82	\$16.77	\$23.52	\$0.00	\$83.11
TUNNEL WORK - COMPRESSED AIR <i>LABORERS (COMPRESSED AIR)</i>	06/01/2024	\$57.71	\$9.65	\$19.00	\$0.00	\$86.36
	12/01/2024	\$59.18	\$9.65	\$19.00	\$0.00	\$87.83
	06/01/2025	\$60.68	\$9.65	\$19.00	\$0.00	\$89.33
	12/01/2025	\$62.18	\$9.65	\$19.00	\$0.00	\$90.83
	06/01/2026	\$63.73	\$9.65	\$19.00	\$0.00	\$92.38
	12/01/2026	\$65.23	\$9.65	\$19.00	\$0.00	\$93.88
	For apprentice rates see "Apprentice- LABORER"					

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
TUNNEL WORK - COMPRESSED AIR (HAZ. WASTE) <i>LABORERS (COMPRESSED AIR)</i>	06/01/2024	\$59.71	\$9.65	\$19.00	\$0.00	\$88.36
	12/01/2024	\$61.18	\$9.65	\$19.00	\$0.00	\$89.83
	06/01/2025	\$62.68	\$9.65	\$19.00	\$0.00	\$91.33
	12/01/2025	\$64.18	\$9.65	\$19.00	\$0.00	\$92.83
	06/01/2026	\$65.73	\$9.65	\$19.00	\$0.00	\$94.38
	12/01/2026	\$67.23	\$9.65	\$19.00	\$0.00	\$95.88
	For apprentice rates see "Apprentice- LABORER"					
TUNNEL WORK - FREE AIR <i>LABORERS (FREE AIR TUNNEL)</i>	06/01/2024	\$49.78	\$9.65	\$19.00	\$0.00	\$78.43
	12/01/2024	\$51.25	\$9.65	\$19.00	\$0.00	\$79.90
	06/01/2025	\$52.75	\$9.65	\$19.00	\$0.00	\$81.40
	12/01/2025	\$54.25	\$9.65	\$19.00	\$0.00	\$82.90
	06/01/2026	\$55.80	\$9.65	\$19.00	\$0.00	\$84.45
	12/01/2026	\$57.30	\$9.65	\$19.00	\$0.00	\$85.95
	For apprentice rates see "Apprentice- LABORER"					
TUNNEL WORK - FREE AIR (HAZ. WASTE) <i>LABORERS (FREE AIR TUNNEL)</i>	06/01/2024	\$51.78	\$9.65	\$19.00	\$0.00	\$80.43
	12/01/2024	\$53.25	\$9.65	\$19.00	\$0.00	\$81.90
	06/01/2025	\$54.75	\$9.65	\$19.00	\$0.00	\$83.40
	12/01/2025	\$56.25	\$9.65	\$19.00	\$0.00	\$84.90
	06/01/2026	\$57.80	\$9.65	\$19.00	\$0.00	\$86.45
	12/01/2026	\$59.30	\$9.65	\$19.00	\$0.00	\$87.95
	For apprentice rates see "Apprentice- LABORER"					
VAC-HAUL <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	06/01/2024	\$40.24	\$15.07	\$18.67	\$0.00	\$73.98
	12/01/2024	\$40.24	\$15.07	\$20.17	\$0.00	\$75.48
	01/01/2025	\$40.24	\$15.57	\$20.17	\$0.00	\$75.98
	06/01/2025	\$41.24	\$15.57	\$20.17	\$0.00	\$76.98
	12/01/2025	\$41.24	\$15.57	\$21.78	\$0.00	\$78.59
	01/01/2026	\$41.24	\$16.17	\$21.78	\$0.00	\$79.19
	06/01/2026	\$42.24	\$16.17	\$21.78	\$0.00	\$80.19
	12/01/2026	\$42.24	\$16.17	\$23.52	\$0.00	\$81.93
	01/01/2027	\$42.24	\$16.77	\$23.52	\$0.00	\$82.53
VOICE-DATA-VIDEO TECHNICIAN <i>ELECTRICIANS LOCAL 96</i>	09/01/2024	\$35.29	\$13.99	\$17.57	\$0.00	\$66.85
	09/07/2025	\$36.12	\$14.98	\$17.91	\$0.00	\$69.01
	09/06/2026	\$37.04	\$15.96	\$18.27	\$0.00	\$71.27

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - VOICE-DATA-VIDEO TECHNICIAN - Local 96

Effective Date - 09/01/2024

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$17.65	\$13.99	\$4.41	\$0.00	\$36.05
2	55	\$19.41	\$13.99	\$4.46	\$0.00	\$37.86
3	60	\$21.17	\$13.99	\$17.15	\$0.00	\$52.31
4	65	\$22.94	\$13.99	\$17.20	\$0.00	\$54.13
5	70	\$24.70	\$13.99	\$17.25	\$0.00	\$55.94
6	75	\$26.47	\$13.99	\$17.30	\$0.00	\$57.76
7	80	\$28.23	\$13.99	\$17.36	\$0.00	\$59.58
8	85	\$30.00	\$13.99	\$17.41	\$0.00	\$61.40

Effective Date - 09/07/2025

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$18.06	\$14.98	\$4.51	\$0.00	\$37.55
2	55	\$19.87	\$14.98	\$4.57	\$0.00	\$39.42
3	60	\$21.67	\$14.98	\$17.48	\$0.00	\$54.13
4	65	\$23.48	\$14.98	\$17.53	\$0.00	\$55.99
5	70	\$25.28	\$14.98	\$17.59	\$0.00	\$57.85
6	75	\$27.09	\$14.98	\$17.64	\$0.00	\$59.71
7	80	\$28.90	\$14.98	\$17.70	\$0.00	\$61.58
8	85	\$30.70	\$14.98	\$17.75	\$0.00	\$63.43

Notes:

Apprentice to Journeyworker Ratio:1:1

WAGON DRILL OPERATOR LABORERS - ZONE 2	06/01/2024	\$39.28	\$9.65	\$18.40	\$0.00	\$67.33
	12/01/2024	\$40.61	\$9.65	\$18.40	\$0.00	\$68.66
	06/01/2025	\$42.00	\$9.65	\$18.40	\$0.00	\$70.05
	12/01/2025	\$43.38	\$9.65	\$18.40	\$0.00	\$71.43
	06/01/2026	\$44.82	\$9.65	\$18.40	\$0.00	\$72.87
	12/01/2026	\$46.26	\$9.65	\$18.40	\$0.00	\$74.31
	06/01/2027	\$47.71	\$9.65	\$18.40	\$0.00	\$75.76
	12/01/2027	\$49.16	\$9.65	\$18.40	\$0.00	\$77.21
	06/01/2028	\$50.66	\$9.65	\$18.40	\$0.00	\$78.71
	12/01/2028	\$52.16	\$9.65	\$18.40	\$0.00	\$80.21

For apprentice rates see "Apprentice- LABORER"

WAGON DRILL OPERATOR (HEAVY & HIGHWAY) LABORERS - ZONE 2 (HEAVY & HIGHWAY)	06/01/2024	\$38.78	\$9.65	\$17.80	\$0.00	\$66.23
	12/01/2024	\$40.11	\$9.65	\$17.80	\$0.00	\$67.56
	06/01/2025	\$41.50	\$9.65	\$17.80	\$0.00	\$68.95
	12/01/2025	\$42.88	\$9.65	\$17.80	\$0.00	\$70.33
	06/01/2026	\$44.32	\$9.65	\$17.80	\$0.00	\$71.77
	12/01/2026	\$45.76	\$9.65	\$17.80	\$0.00	\$73.21

For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
WASTE WATER PUMP OPERATOR <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2024	\$56.03	\$15.30	\$16.40	\$0.00	\$87.73
	12/01/2024	\$57.48	\$15.30	\$16.40	\$0.00	\$89.18
	06/01/2025	\$58.78	\$15.30	\$16.40	\$0.00	\$90.48
	12/01/2025	\$60.23	\$15.30	\$16.40	\$0.00	\$91.93
	06/01/2026	\$61.53	\$15.30	\$16.40	\$0.00	\$93.23
	12/01/2026	\$62.98	\$15.30	\$16.40	\$0.00	\$94.68
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
WATER METER INSTALLER <i>PLUMBERS LOCAL 4</i>	09/01/2024	\$55.35	\$9.90	\$17.42	\$0.00	\$82.67
	03/01/2025	\$56.75	\$9.90	\$17.42	\$0.00	\$84.07
	09/01/2025	\$58.15	\$9.90	\$17.42	\$0.00	\$85.47
	03/01/2026	\$59.55	\$9.90	\$17.42	\$0.00	\$86.87
For apprentice rates see "Apprentice- PLUMBER/PIPEFITTER" or "PLUMBER/GASFITTER"						

Additional Apprentice Information:

Minimum wage rates for apprentices employed on public works projects are listed above as a percentage of the pre-determined hourly wage rate established by the Commissioner under the provisions of the M.G.L. c. 149, ss. 26-27D. Apprentice ratios are established by the Division of Apprenticeship Training pursuant to M.G.L. c. 23, ss. 11E-11L.

All apprentices must be registered with the Division of Apprenticeship Training in accordance with M.G.L. c. 23, ss. 11E-11L.

All steps are six months (1000 hours.)

Ratios are expressed in allowable number of apprentices to journeymen or fraction thereof, unless otherwise specified.

** Multiple ratios are listed in the comment field.

*** APP to JM; 1:1, 2:2, 2:3, 3:4, 4:4, 4:5, 4:6, 5:7, 6:7, 6:8, 6:9, 7:10, 8:10, 8:11, 8:12, 9:13, 10:13, 10:14, etc.

**** APP to JM; 1:1, 1:2, 2:3, 2:4, 3:5, 4:6, 4:7, 5:8, 6:9, 6:10, 7:11, 8:12, 8:13, 9:14, 10:15, 10:16, etc.

APPENDIX B

- Order of Conditions



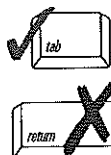
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 Bureau of Resource Protection - Wetlands
WPA Form 5 – Order of Conditions
 Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:
 312-1139
 MassDEP File # _____
 eDEP Transaction # _____
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 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: Uxbridge Conservation Commission
 Conservation Commission

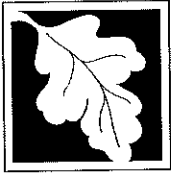
2. This issuance is for (check one):
 a. Order of Conditions b. Amended Order of Conditions

3. To: Applicant:
 Paul Hutnak
 a. First Name b. Last Name
 Town of Uxbridge
 c. Organization
 147 Hecla Street
 d. Mailing Address
 Uxbridge MA 01569
 e. City/Town f. State g. Zip Code

4. Property Owner (if different from applicant):

 a. First Name b. Last Name
 Town of Uxbridge
 c. Organization
 21 South Main Street
 d. Mailing Address
 Uxbridge MA 01569
 e. City/Town f. State g. Zip Code

5. Project Location:
 Ironstone Rd Uxbridge
 a. Street Address b. City/Town
 ROADWAY
 c. Assessors Map/Plat Number d. Parcel/Lot Number
 Latitude and Longitude, if known: 42 d 01 m 40 s -71 d 36 m 36 s
 d. Latitude e. Longitude



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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

a. County	b. Certificate Number (if registered land)	
N/A		
c. Book	d. Page	

7. Dates: 4/25/2022 5/16/2022 5/23/2022
 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):
 Ironstone Road Bridge Preservation

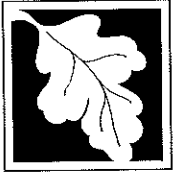
a. Plan Title	Todd Warzecki, P.E.	
BETA Group, Inc.		
b. Prepared By	c. Signed and Stamped by	
4/21/2022	1:20	
d. Final Revision Date	e. Scale	
f. Additional Plan or Document Title	g. Date	

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. <input checked="" type="checkbox"/> Public Water Supply | b. <input type="checkbox"/> Land Containing Shellfish | c. <input checked="" type="checkbox"/> Prevention of Pollution |
| d. <input checked="" type="checkbox"/> Private Water Supply | e. <input checked="" type="checkbox"/> Fisheries | f. <input checked="" type="checkbox"/> Protection of Wildlife Habitat |
| g. <input checked="" type="checkbox"/> Groundwater Supply | h. <input checked="" type="checkbox"/> Storm Damage Prevention | i. <input checked="" type="checkbox"/> 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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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) 0.00
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	8.00 a. linear feet	b. linear feet	c. linear feet	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	320.00 a. square feet e. c/y dredged	b. square feet f. c/y dredged	c. square feet	d. square feet
7. <input type="checkbox"/> Bordering Land Subject to Flooding	a. square feet	b. square feet	c. square feet	d. square feet
Cubic Feet Flood Storage	e. cubic feet	f. cubic feet	g. cubic feet	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 checked="" type="checkbox"/> Riverfront Area	3,548.00 a. total sq. feet 3,548.00 c. square feet	3,548.00 b. total sq. feet 3,548.00 d. square feet	e. square feet	f. square feet
Sq ft within 100 ft	0.00 g. square feet	0.00 h. square feet	i. square feet	j. square feet
Sq ft between 100-200 ft				



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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	_____	_____		
	a. square feet	b. square feet		
	_____	_____		
	c. c/y dredged	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	_____	_____	_____	_____
	a. square feet	b. square feet	c. nourishment	d. nourishment
14. <input type="checkbox"/> Coastal Dunes	_____	_____	_____	_____
	a. square feet	b. square feet	c. nourishment	d. nourishment
15. <input type="checkbox"/> Coastal Banks	_____	_____		
	a. linear feet	b. linear feet		
16. <input type="checkbox"/> Rocky Intertidal Shores	_____	_____		
	a. square feet	b. square feet		
17. <input type="checkbox"/> Salt Marshes	_____	_____	_____	_____
	a. square feet	b. square feet	c. square feet	d. square feet
18. <input type="checkbox"/> Land Under Salt Ponds	_____	_____		
	a. square feet	b. square feet		
	_____	_____		
	c. c/y dredged	d. c/y dredged		
19. <input type="checkbox"/> Land Containing Shellfish	_____	_____	_____	_____
	a. square feet	b. square feet	c. square feet	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			
	_____	_____		
	a. c/y dredged	b. c/y dredged		
21. <input type="checkbox"/> Land Subject to Coastal Storm Flowage	_____	_____		
	a. square feet	b. square feet		
22. <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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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 (BWV) or B.17.c (Salt Marsh) above, please enter the additional amount here.

22. <input type="checkbox"/> Restoration/Enhancement *:	0.00	0.00
	a. square feet of BWV	b. square feet of salt marsh
23. <input type="checkbox"/> Stream Crossing(s):	0	0
	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.
 - c. If the work is for a Test Project, this Order of Conditions shall be valid for no more than one year.
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. An Order of Conditions for a Test Project may be extended for one additional year only upon written application by the applicant, subject to the provisions of 310 CMR 10.05(11)(f).
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 5/23/2025 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.



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C. General Conditions Under Massachusetts Wetlands Protection Act

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.
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 312-1139 "
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.



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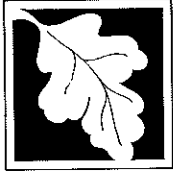
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C. General Conditions Under Massachusetts Wetlands Protection Act (cont.)

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.
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.
19. The work associated with this Order (the "Project")
- (1) is subject to the Massachusetts Stormwater Standards
- (2) is NOT 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;



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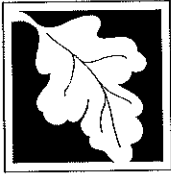
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C. General Conditions Under Massachusetts Wetlands Protection Act (cont.)

- 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.
- 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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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):

See attached pages incorporated herein and made part of this Order

20. For Test Projects subject to 310 CMR 10.05(11), the applicant shall also implement the monitoring plan and the restoration plan submitted with the Notice of Intent. If the conservation commission or Department determines that the Test Project threatens the public health, safety or the environment, the applicant shall implement the removal plan submitted with the Notice of Intent or modify the project as directed by the conservation commission or the Department.



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:

312-1139

MassDEP File #

eDEP Transaction #
 Uxbridge

City/Town

D. Findings Under Municipal Wetlands Bylaw or Ordinance

1. Is a municipal wetlands bylaw or ordinance applicable? Yes No
2. The Uxbridge Conservation Commission 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:

1. Municipal Ordinance or Bylaw

2. Citation

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):



Massachusetts Department of Environmental Protection
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Provided by MassDEP:
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Oxbridge
 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.

Please indicate the number of members who will sign this form. This Order must be signed by a majority of the Conservation Commission.

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.

5/23/2022
 1. Date of Issuance
4
 2. Number of Signers

Signature [Handwritten Signature]
 Signature Paul M. Balutis
 Signature [Handwritten Signature]
 Signature _____
 Signature _____
 Signature Lauren Steele
 Signature _____
 Signature _____

Jeffrey Shaw
 Printed Name
Paul Balutis
 Printed Name
Russell Holden
 Printed Name
Thomas Etzold
 Printed Name
Philip Bertuglia
 Printed Name
Lauren Steele
 Printed Name

 Printed Name

 Printed Name

by hand delivery on

by certified mail, return receipt requested, on

Date

Date



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
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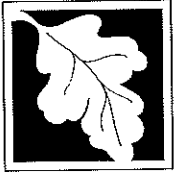
Provided by MassDEP:
312-1139
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City/Town

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 for 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.



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Provided by MassDEP:
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 Uxbridge
 City/Town _____

G. Recording Information

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.

Uxbridge Conservation Commission

Conservation Commission

Detach on dotted line, have stamped by the Registry of Deeds and submit to the Conservation Commission.

To:

Uxbridge Conservation Commission

Conservation Commission

Please be advised that the Order of Conditions for the Project at:

Ironstone Rd

312-1139

Project Location

MassDEP File Number

Has been recorded at the Registry of Deeds of:

Worcester

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:

5/23/2022

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

**Findings of the Uxbridge Conservation Commission
DEP #312-1139 Ironstone Road Bridge Project**

Findings of Fact:

The Uxbridge Department of Public Works, the applicant, proposes to repair and remediate deficiencies occurring at the Ironstone Road bridge that conveys Ironstone Road over Bacon Brook.

Bacon Brook is a perennial stream that flows in a northerly direction from the Ironstone Reservoir, its headwaters. The resource areas on site include; Bank of Bacon Brook, Land Under Water associated with Bacon Brook and the Riverfront Area of Bacon Brook.

The bridge rehabilitation project includes; concrete and spall repairs to the concrete slab, filling scour voids along the original abutment face, installation of a new concrete facing over the original face, full depth reconstruction of approximately 140 linear feet of Ironstone Road, repair and repointing of the existing masonry walls, and the installation of a new guardrail system. The proposed project will result in approximately eight linear feet of temporary impact to the bank of Bacon Brook due to the installation of erosion controls and water controls. Following construction, the bank will be restored to original grade and revegetated with a native seed mix. Approximately 3,548 square feet of temporary impacts to Riverfront Area are proposed resulting from staging/stockpiling, clearing and grubbing of slopes adjacent to the bridge, re-grading and stabilizing the roadway and slopes and the installation of the proposed guardrails. Approximately 320 square feet of temporary impact to Land Under Water Bodies is anticipated as a result of the dewatering activities necessary to complete the project.

The site Contractor is to prepare a Water Control and Dewatering Plan to be submitted to the design engineer Beta, Inc. prior to implementation. The engineer-approved Dewatering Plan will be submitted to the Commission or its Agent for further input and approval.

Findings and Conditions of the Uxbridge Conservation Commission

DEP # 312-1139 Ironstone Rd

Project Description: REHABILITATION OF THE EXISTING BRIDGE STRUCTURE CARRYING IRONSTONE ROAD OVER BACON BROOK. WORK INCLUDES CONCRETE REPAIRS, REFACING THE ABUTMENTS, REPOINTING WINGWALLS, INSTALLATION OF MOMENT SLABS AND REPLACEMENT OF GUARDRAILS AND BRIDGE RAILS.

Approved Plans:

Plan #	Title	Engineer	Dated	Revised	Signed/Stamped by
	Ironstone Road Bridge Preservation	BETA Group, Inc.	4/21/2022		Todd Warzecki, P.E.

The following conditions indicated with a checkmark shall apply to this project:

- 21. The Uxbridge Conservation Commission and its duly authorized agent shall have the right to enter the property subject to this Order for the purposes of inspection and enforcement for the duration that this Order is in effect. Denying the Conservation Commission or its agent access to the property shall be considered grounds for revoking the Order of Conditions.
- 22. This Order of Conditions shall not be considered valid until the Uxbridge Conservation Commission is in receipt of a Certificate of Understanding that has been signed and completed by the owner/applicant. The Certificate of Understanding shall not be considered complete unless each criterion has been initialed by the applicant to demonstrate an understanding of this Order of Conditions.
- 23. The Uxbridge Conservation Commission shall retain the right to require the submittal of additional information or additional construction measures deemed necessary to ensure the protection of wetland resource areas located in close proximity to the project. Construction measures may include, without limitation, additional erosion control measures.
- 24. Any proposed changes to the approved plans must be reviewed and approved by the Uxbridge Conservation Commission. Changes in the originally approved work may require the filing of a new Notice of Intent as dictated by the policy of the Massachusetts Department of Environmental Protection.
- 25. Before work may begin, the name(s) and telephone number(s) of the field engineer responsible for overseeing the installation and maintenance of erosion controls shall be provided to the Uxbridge Conservation Commission.
- 26. All erosion controls shall include a silt fence and 10 inch or larger wattles. They must be inspected and approved by the Uxbridge Conservation Commission prior to the start of work. Please call the Conservation office to schedule this site visit, the fee is \$50.00
- 27. Prior to work the site following installed sedimentation there will be an on-site pre- construction meeting. The site supervisor or applicant will meet with the Conservation Agent and will provide by email /or phone for both commencement and finishing of work at the site. Notice shall be given to the Uxbridge Conservation Commission no less than two (2) business days prior to the commencement of construction activities. Failure to notify the Conservation Commission or its agent may result in enforcement in the form of a Stop Work Order until proper communication is established between the Conservation Commission and operator of the project site.
- 28. Prior to any disturbance on the site, the applicant or his/her representative shall submit a schedule to the Conservation Commission and it's Agent for review and approval. The schedule shall include a sequence of events with approximate dates of activities relevant to this Order of Conditions, including, without limitation:
 - a) Placement of sediment and erosion controls;
 - b) Site preparation;
 - c) Tree cutting;
 - d) Construction activities;
 - e) Stabilization of the site;
 - f) Key dates or milestones for activities; and
 - g) Site management information including names, addresses, phone number and e-mail addresses of site contractors.

Findings and Conditions of the Uxbridge Conservation Commission

DEP # 312-1139 Ironstone Rd

- ☑ 29. Before any work on-site begins, all other applicable federal, state /or local permits /or approvals must be obtained. Said permits and approvals may include but are not limited to: Approved Definitive Subdivision plan, Zoning Permit, Building Permit, Board of Health approval for septic systems, etc. The Conservation Commission may contact the appropriate board or department to verify that such permits have been issued.
- ☑ 30. Unless otherwise stated by the Conservation Commission or its Agent, all project sites with an authorized limit of disturbance of two (2) acres or greater shall require a dumpster on the property located outside of resource areas and their jurisdictional limits. All trash and construction debris from the site will be deposited in the dumpster. This dumpster shall be emptied at a minimum of at least once every two (2) weeks or more often if necessary. Construction waste shall not be buried on the property under any circumstances. All contractors and operators of the site are required to be informed of the appropriate procedure for waste disposal.
- ☑ 31. A copy of the approved plans and Order of Conditions shall be kept on-site and available for review at all times. All contractors are expected to adhere to the approved plan and these Conditions
- ☑ 32. The boundaries of all wetland resource areas shall be clearly demarcated with flagging. Wetland flagging shall remain in place until all work is completed and a Certificate of Compliance is issued by the Uxbridge Conservation
- ☑ 33. No unsuitable material of any kind (i.e. stumps, roots, trash, debris, etc.) may be buried, placed or dispersed within a wetland, watercourse or within the jurisdictional limits afforded to these resource areas unless otherwise authorized by the Conservation Commission or its Agent. This shall be a condition in perpetuity and shall be noted in the Certificate of Compliance.
- ☑ 34. Erosion control measures to include straw wattles, compost socks and staked silt fence shall be installed along the limit of work as shown on the approved Plan of Record. Hay bales are no longer permissible within jurisdictional resource areas or their buffer zones. Straw wattles and compost socks shall overlap by at least one (1) horizontal foot to prevent breaches from occurring. Earth shall not be backfilled against or allowed to overtop erosion control barriers. The Conservation Commission or its Agent may require the erosion barrier to be replaced if the barrier is in jeopardy of breaching.
- ☑ 35. Erosion control barriers shall be inspected regularly and maintained at all times. If a breach of the erosion control barriers occurs, the Uxbridge Conservation Commission shall be notified, and measures shall be taken to remediate said breach under the guidance of the Commission. Silt and sand accumulating behind said barriers shall be removed regularly. The Conservation Commission also requires that erosion and sedimentation control devices be inspected within twenty-four (24) hours following each reportable storm event over .5" and repaired and replaced as necessary.
- ☑ 36. Erosion control barriers shall remain in place until a Certificate of Compliance is issued for said work or upon written authorization from the Uxbridge Conservation Commission. Upon issuance of a Certificate of Compliance, silt fencing and stakes must be removed unless otherwise requested by the Uxbridge Conservation Commission.
- ☑ 37. The area of construction shall remain in a stable condition at the close of each construction day. Stable conditions include, but are not limited to, proper maintenance of erosion controls and stockpiling of soil or debris.
- ☑ 38. All equipment shall be inspected regularly for leaks. Any leaking hydraulic lines, cylinders, or any other components shall be fixed immediately. Any release on the property which is reported to the Massachusetts Department of Environmental Protection, Bureau of Waste Site Cleanup (MassDEP, BWSC) shall be subsequently reported to the Conservation Commission within twenty-four (24) hours of said incident. Any documents provided to MassDEP, BWSC pertaining to said release shall be forwarded to the Conservation Commission or its Agent for record.
- ☑ 39. Construction materials, vehicles, portable toilets and earth shall be stored outside of the 100-foot buffer zone of wetland resource areas or 200-foot Riverfront Areas, unless otherwise demarcated and authorized on the approved

Findings and Conditions of the Uxbridge Conservation Commission

DEP # 312-1139 Ironstone Rd

- 40. Refueling of vehicles shall not take place within wetland resource areas, the 100-foot buffer zone of wetland resource areas and/or 200-foot Riverfront Areas.
- 41. The applicant is required to maintain the project site in a manner that is consistent with its Stormwater Pollution Prevention Plan (SWPPP) when such a plan is required. If a project is found to be in violation of its SWPPP, it is therefore considered to be in violation of this Order of Conditions. Applicants must forward a copy of the respective SWPPP to the Conservation Commission or its Agent and any subsequent reports pertaining to the management of stormwater runoff on the property when these documents are prepared for distribution. No work approved by this Order of Conditions may commence on the property until a SWPPP has been authorized for projects wherein such a plan is required.
- 42. An OMP Report shall be submitted quarterly to the Conservation Commission electronically.

Findings and Conditions of the Uxbridge Conservation Commission

DEP # 312-1139 Ironstone Rd

- 43. The Conservation Commission may require that more than the first inch of rainfall to be treated if stormwater is discharged within 50 horizontal feet of a cold-water fishery.
- 44. Unplanned stormwater runoff shall be reported to the Conservation Commission or its Agent. The Conservation Commission may require additional treatment techniques to detain and managed unexpected stormflow.
- 45. Upon completion of the project, all exposed soil areas shall be stabilized and re-vegetated. Areas not permanently stabilized by December 1st, shall be temporarily stabilized by installation of erosion control blankets or other method approved by the Uxbridge Conservation Commission.
- 46. This Order of Conditions shall apply to any successor in interest or successor in control of the property subject to this Order.
- 47. Any damage to wetland resource areas shall be the responsibility of any successor in interest or successor in control to remediate.
- 48. Certain conditions are ongoing and do not expire upon completion of the project or the issuance of a Certificate of Compliance. Some of these conditions include as follows:
 - a) Synthetic Herbicides, pesticides, or chemical fertilizers shall not be used within wetland resource areas or 100-foot buffer zone of wetland resource areas.
 - b) Snow shall not be stockpiled within wetland resource areas and buffer zones. Signs reading "NO Snow Stockpiled in This Area" will be added every 20' along the 25' disturb line on the parcel.
 - c) Snow shall only be stored as shown on the approved plan. All snow removed from trailer roof tops will be plan in snow stock areas as shown on approved plan.
 - d) Snow stored within jurisdiction of the Conservation Commission shall be cleaned in the spring of each calendar year of any accumulated sand or debris following the melt off of all snow; this area shall be reseeded as necessary for restoration of vegetated cover disturbed through snow management of the project site. Sand and debris shall be removed to a proper disposal location away from any wetlands or their jurisdictional limits unless otherwise authorized by the Conservation Commission.
 - e) All snow removed from the roof top of trailers shall be placed in only the Stockpile areas shown on the revised plan.
 - f) Wetland resource areas as well as buffer zones shall be kept free of debris, litter or other extraneous material including landscaping refuse.
 - g) Location of erosion control barriers per the approved plan(s) is understood to be the limit of work &/or landscaping unless otherwise authorized by the Conservation Commission. No construction, clearing, or landscaping beyond the erosion control barriers shall occur either during project activities or after project completion, without express permission from the Uxbridge Conservation Commission.
 - h) As described in the Conservation Commission's setback policy, no land disturbance shall be allowed within twenty-five (25) horizontal feet of any freshwater wetland unless otherwise authorized by the Conservation Commission as shown on the approved plans related to the project. Maintenance of existing lawns within this 25-foot area is allowed so long as said maintenance is completed in a manner that is consistent with the standards and definitions of the Wetlands Protection Act and its regulations. This condition shall be maintained in perpetuity after a Certificate of Compliance is issued.
- 49. Any wetland replication shall conform to the guidance set forth by the Massachusetts Department of Environmental Protection in Guidance - BRP/DWM/WetG02-2; Massachusetts Inland Wetland Replication Guidelines.

Findings and Conditions of the Uxbridge Conservation Commission

DEP # 312-1139 Ironstone Rd

- a) The name and contact information of the wetland scientist responsible for replication design, oversight and annual report submittal shall be forwarded in writing to the Uxbridge Conservation Commission office before the commencement of work. Design, oversight and subsequent reports shall be performed and prepared by a Professional Wetland Scientist (PWS), a Certified Professional Soil Scientist (CPSS), a Certified Wildlife Biologist (CWB) or a qualified professional approved by the Conservation Commission or its Agent.
 - b) Planting plans and data on vegetation to be used shall be forwarded to the Uxbridge Conservation Commission for approval before the beginning of wetland replication activities. Replication plans and narratives shall include details on grades, vegetation types and density of plantings and wetland soils
 - c) The Uxbridge Conservation Commission office shall be notified upon completion of replication area grading and before commencement of topsoil placement and planting. The Uxbridge Conservation Commission may elect to perform a site visit to assess the progress.
 - d) Wetland replication shall occur before &/or concurrently with wetland fill so that salvaged material (soil and any vegetation) may be quickly transplanted to the replication area.
 - e) Existing wetland topsoil and vegetation (where practicable) shall be salvaged from the wetland area to be filled. Salvaged topsoil shall be used to augment soil amendments in the replication area. Salvaged wetland vegetation shall be immediately transplanted to the replication area.
 - f) An annual wetland evaluation report detailing wetland replication progress shall be submitted to the Uxbridge Conservation Commission on or before October 15th of each year until replication is deemed successful by this Commission. The annual evaluation report shall be completed by a qualified wetland scientist and shall include information on aerial extent of cover, percent species survival, individual plant species replacement, hydrology and invasive species presence, if any. A Certificate of Compliance for the project will not be issued for this project until replication is deemed successful by the Uxbridge Conservation Commission. A successful replication area shall be stabilized for at least two (2) growing seasons and in compliance with the standards and definitions in the guidance document provided by MassDEP unless otherwise approved by the Conservation Commission. An annual evaluation report shall not be required if the work has not commenced before October 15th of the subject year.
 - g) A copy of the wetland replication plans and narrative shall be provided to the wetland scientist to oversee replication and to the contractor(s) to carry out the work. A copy of the wetland replication plans and narrative shall be made available at all times for review by contractors.
 - h) Failure to abide by the conditions herein shall be grounds for the issuance of a Stop Work Order, further enforcement action &/or fines.
50. Upon completion of the project, the applicant must apply for a Certificate of Compliance by submitting a "Request for Certificate of Compliance (WPA Form 8A)" form and an engineer-stamped and signed "As-built plan". A lien against the parcel shall remain in effect until a Certificate of Compliance is issued.
51. Record the enclosed Order of Conditions with the Worcester County Registry of Deeds and forward proof of recording to the Uxbridge Conservation Commission prior to the start of work. The applicant is responsible for maintaining a copy of the approved plan which may be requested by the Uxbridge Conservation Commission for review purposes upon the request for a Certificate of Compliance.

The additional conditions listed below shall apply to this project:

52. Engineer-approved Dewatering Plan must be submitted to the Commission or its Agent for approval prior to implementation

53. Dewatering activities shall not exceed sixty-days unless a written request is made by the project manager and the request is approved by the Commission at a public hearing.



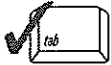
Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
WPA Form 5 – Order of Conditions
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:
312-1138
MassDEP File #
eDEP Transaction #
Uxbridge
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: Uxbridge Conservation Commission
Conservation Commission

2. This issuance is for (check one):
a. Order of Conditions b. Amended Order of Conditions

3. To: Applicant:

Paul Hutnak
a. First Name b. Last Name
Town of Uxbridge
c. Organization
147 Hecla Street
d. Mailing Address
Uxbridge MA 01569
e. City/Town f. State g. Zip Code

4. Property Owner (if different from applicant):

Town of Uxbridge Town of Uxbridge
a. First Name b. Last Name
c. Organization
21 South Main Street
d. Mailing Address
Uxbridge MA 01569
e. City/Town f. State g. Zip Code

5. Project Location:

Carney St Uxbridge
a. Street Address b. City/Town
ROADWAY
c. Assessors Map/Plat Number d. Parcel/Lot Number
Latitude and Longitude, if known: 42 d 04 m 35 s -71 d 37 m 56 s
d. Latitude e. Longitude



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 City/Town

A. General Information (cont.)

6. Property recorded at the Registry of Deeds for (attach additional information if more than one parcel):
 Worcester

a. County	b. Certificate Number (if registered land)	
N/A		
c. Book	d. Page	
4/25/2022	5/16/2022	5/23/2022

7. Dates:
 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):
 Carney Street Bridge Preservation

a. Plan Title	Todd Warzecki, P.E.	
BETA Group, Inc.		
b. Prepared By	c. Signed and Stamped by	
4/21/2022	1:20	
d. Final Revision Date	e. Scale	
f. Additional Plan or Document Title	g. Date	

B. Findings

1. Findings pursuant to the Massachusetts Wetlands Protection Act:

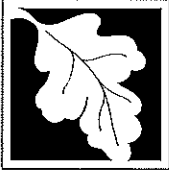
Following the review of the above-referenced Notice of Intent and based on the information provided in this application and presented at the public hearing, this Commission finds that the areas in which work is proposed is significant to the following interests of the Wetlands Protection Act (the Act). Check all that apply:

a. <input checked="" type="checkbox"/> Public Water Supply	b. <input type="checkbox"/> Land Containing Shellfish	c. <input checked="" type="checkbox"/> Prevention of Pollution
d. <input checked="" type="checkbox"/> Private Water Supply	e. <input checked="" type="checkbox"/> Fisheries	f. <input checked="" type="checkbox"/> Protection of Wildlife Habitat
g. <input checked="" type="checkbox"/> Groundwater Supply	h. <input checked="" type="checkbox"/> Storm Damage Prevention	i. <input checked="" type="checkbox"/> 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.



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:
 312-1138
 MassDEP File # _____
 eDEP Transaction # _____
 Uxbridge
 City/Town _____

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) 0.00
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	8.00 a. linear feet	8.00 b. linear feet	c. linear feet	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	390.00 a. square feet	390.00 b. square feet	c. square feet	d. square feet
	e. c/y dredged	f. c/y dredged		
7. <input type="checkbox"/> Bordering Land Subject to Flooding	a. square feet	b. square feet	c. square feet	d. square feet
	e. cubic feet	f. cubic feet	g. cubic feet	h. cubic feet
8. <input type="checkbox"/> Isolated Land Subject to Flooding	a. square feet	b. square feet		
	c. cubic feet	d. cubic feet	e. cubic feet	f. cubic feet
9. <input checked="" type="checkbox"/> Riverfront Area	3,760.00 a. total sq. feet	3,760.00 b. total sq. feet		
	3,760.00 c. square feet	3,760.00 d. square feet	e. square feet	f. square feet
	g. square feet	h. square feet	i. square feet	j. square feet



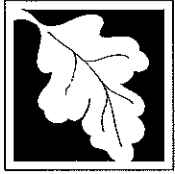
Massachusetts Department of Environmental Protection
 Bureau of Resource Protection - Wetlands
WPA Form 5 – Order of Conditions
 Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:
 312-1138
 MassDEP File # _____
 eDEP Transaction # _____
 Uxbridge
 City/Town _____

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	_____	_____		
	a. square feet	b. square feet		
	_____	_____		
	c. c/y dredged	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	_____	_____	_____ cu yd	_____ cu yd
	a. square feet	b. square feet	c. nourishment	d. nourishment
14. <input type="checkbox"/> Coastal Dunes	_____	_____	_____ cu yd	_____ cu yd
	a. square feet	b. square feet	c. nourishment	d. nourishment
15. <input type="checkbox"/> Coastal Banks	_____	_____		
	a. linear feet	b. linear feet		
16. <input type="checkbox"/> Rocky Intertidal Shores	_____	_____		
	a. square feet	b. square feet		
17. <input type="checkbox"/> Salt Marshes	_____	_____	_____	_____
	a. square feet	b. square feet	c. square feet	d. square feet
18. <input type="checkbox"/> Land Under Salt Ponds	_____	_____		
	a. square feet	b. square feet		
	_____	_____		
	c. c/y dredged	d. c/y dredged		
19. <input type="checkbox"/> Land Containing Shellfish	_____	_____	_____	_____
	a. square feet	b. square feet	c. square feet	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			
	_____	_____		
	a. c/y dredged	b. c/y dredged		
21. <input type="checkbox"/> Land Subject to Coastal Storm Flowage	_____	_____		
	a. square feet	b. square feet		
22. <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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B. Findings (cont.)

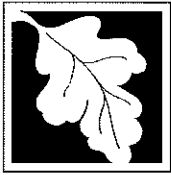
* #22. If the project is for the purpose of restoring or enhancing a wetland resource area in addition to the square footage that has been entered in Section B.5.c (BVW) or B.17.c (Salt Marsh) above, please enter the additional amount here.

22. <input type="checkbox"/> Restoration/Enhancement *:	0.00	0.00
	a. square feet of BVW	b. square feet of salt marsh
23. <input type="checkbox"/> Stream Crossing(s):	0	0
	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.
 - c. If the work is for a Test Project, this Order of Conditions shall be valid for no more than one year.
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. An Order of Conditions for a Test Project may be extended for one additional year only upon written application by the applicant, subject to the provisions of 310 CMR 10.05(11)(f).
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 5/23/2025 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.



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C. General Conditions Under Massachusetts Wetlands Protection Act

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.
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 312-1138 "
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.



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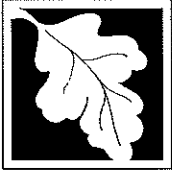
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C. General Conditions Under Massachusetts Wetlands Protection Act (cont.)

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.
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.
19. The work associated with this Order (the "Project")
 - (1) is subject to the Massachusetts Stormwater Standards
 - (2) is NOT 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;



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C. General Conditions Under Massachusetts Wetlands Protection Act (cont.)

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.

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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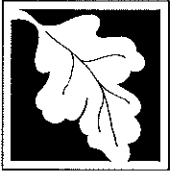
C. General Conditions Under Massachusetts Wetlands Protection Act (cont.)

- 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):

See attached pages incorporated herein and made part of this Order

20. For Test Projects subject to 310 CMR 10.05(11), the applicant shall also implement the monitoring plan and the restoration plan submitted with the Notice of Intent. If the conservation commission or Department determines that the Test Project threatens the public health, safety or the environment, the applicant shall implement the removal plan submitted with the Notice of Intent or modify the project as directed by the conservation commission or the Department.



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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 Uxbridge Conservation Commission 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:

_____ 1. Municipal Ordinance or Bylaw _____ 2. Citation

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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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.

5/23/22
 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.

[Signature]
 Signature

Jeffrey shaw
 Printed Name

Paul M. Balutis
 Signature

Paul Balutis
 Printed Name

[Signature]
 Signature

Russell Holden
 Printed Name

Signature

Philip Bertuglia
 Printed Name

[Signature]
 Signature

Tomas Etzold
 Printed Name

Lauren Steele
 Signature

Lauren Steele
 Printed Name

Signature

Printed Name

Signature

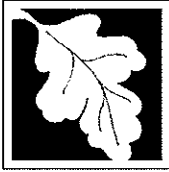
Printed Name

by hand delivery on

by certified mail, return receipt requested, on

Date

Date



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

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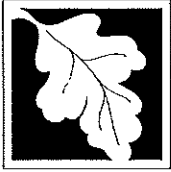
City/Town

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 for 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.



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G. Recording Information

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.

Uxbridge Conservation Commission

 Conservation Commission

Detach on dotted line, have stamped by the Registry of Deeds and submit to the Conservation Commission.

To:

Uxbridge Conservation Commission

 Conservation Commission

Please be advised that the Order of Conditions for the Project at:

Carney St	312-1138
_____	_____
Project Location	MassDEP File Number

Has been recorded at the Registry of Deeds of:

Worcester		
_____	_____	_____
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:

5/23/2022

 Date

If recorded land, the instrument number identifying this transaction is:

If registered land, the document number identifying this transaction is:

**Findings of the Uxbridge Conservation Commission
DEP #312-1138 Carney Street Bridge Project**

Findings of Fact:

The Uxbridge Department of Public Works, the applicant, proposes to repair and remediate deficiencies occurring at the Carney Street bridge that conveys Carney Street over Drabbletail Brook.

Drabbletail Brook is a perennial stream that flows in an easterly direction. The resource areas on site include; Bank (of Drabbletail Brook), Bordering Vegetated Wetland, Land Under Water associated with Drabbletail Brook and the Riverfront Area of Drabbletail Brook.

The bridge rehabilitation project includes concrete and spall repairs, installation of concrete moment slabs at each approach, vegetation removal, repair and repointing of the existing masonry walls and the installation of a new guardrail system. The proposed project will result in approximately eight linear feet of temporary impact to the bank of Drabbletail Brook, associated with vegetation removal and the installation of erosion controls and water controls.

Approximately 3,790 square feet of temporary impacts to Riverfront Area are proposed resulting from staging/stockpiling, clearing and grubbing of slopes adjacent to the bridge, re-grading and stabilizing the roadway and slopes and the installation of the proposed guardrails. Approximately 390 square feet of temporary impact to Land Under Water Bodies is anticipated as a result of the dewatering activities necessary to complete the project.

The site Contractor is to prepare a Water Control and Dewatering Plan to be submitted to the design engineer Beta, Inc. prior to implementation. The engineer-approved Dewatering Plan will be submitted to the Commission or its Agent for further input and approval.

Findings and Conditions of the Uxbridge Conservation Commission

DEP # 312-1138 Carney St

- 43. The Conservation Commission may require that more than the first inch of rainfall to be treated if stormwater is discharged within 50 horizontal feet of a cold-water fishery.
- 44. Unplanned stormwater runoff shall be reported to the Conservation Commission or its Agent. The Conservation Commission may require additional treatment techniques to detain and managed unexpected stormflow.
- 45. Upon completion of the project, all exposed soil areas shall be stabilized and re-vegetated. Areas not permanently stabilized by December 1st, shall be temporarily stabilized by installation of erosion control blankets or other method approved by the Uxbridge Conservation Commission.
- 46. This Order of Conditions shall apply to any successor in interest or successor in control of the property subject to this Order.
- 47. Any damage to wetland resource areas shall be the responsibility of any successor in interest or successor in control to remediate.
- 48. Certain conditions are ongoing and do not expire upon completion of the project or the issuance of a Certificate of Compliance. Some of these conditions include as follows:
 - a) Synthetic Herbicides, pesticides, or chemical fertilizers shall not be used within wetland resource areas or 100-foot buffer zone of wetland resource areas.
 - b) Snow shall not be stockpiled within wetland resource areas and buffer zones. Signs reading "NO Snow Stockpiled in This Area" will be added every 20' along the 25' disturb line on the parcel.
 - c) Snow shall only be stored as shown on the approved plan. All snow removed from trailer roof tops will be plan in snow stock areas as shown on approved plan.
 - d) Snow stored within jurisdiction of the Conservation Commission shall be cleaned in the spring of each calendar year of any accumulated sand or debris following the melt off of all snow; this area shall be reseeded as necessary for restoration of vegetated cover disturbed through snow management of the project site. Sand and debris shall be removed to a proper disposal location away from any wetlands or their jurisdictional limits unless otherwise authorized by the Conservation Commission.
 - e) All snow removed from the roof top of trailers shall be placed in only the Stockpile areas shown on the revised plan.
 - f) Wetland resource areas as well as buffer zones shall be kept free of debris, litter or other extraneous material including landscaping refuse.
 - g) Location of erosion control barriers per the approved plan(s) is understood to be the limit of work &/or landscaping unless otherwise authorized by the Conservation Commission. No construction, clearing, or landscaping beyond the erosion control barriers shall occur either during project activities or after project completion, without express permission from the Uxbridge Conservation Commission.
 - h) As described in the Conservation Commission's setback policy, no land disturbance shall be allowed within twenty-five (25) horizontal feet of any freshwater wetland unless otherwise authorized by the Conservation Commission as shown on the approved plans related to the project. Maintenance of existing lawns within this 25-foot area is allowed so long as said maintenance is completed in a manner that is consistent with the standards and definitions of the Wetlands Protection Act and its regulations. This condition shall be maintained in perpetuity after a Certificate of Compliance is issued.
- 49. Any wetland replication shall conform to the guidance set forth by the Massachusetts Department of Environmental Protection in Guidance - BRP/DWM/WetG02-2; Massachusetts Inland Wetland Replication Guidelines.

Findings and Conditions of the Uxbridge Conservation Commission

DEP # 312-1138 Carney St

- a) The name and contact information of the wetland scientist responsible for replication design, oversight and annual report submittal shall be forwarded in writing to the Uxbridge Conservation Commission office before the commencement of work. Design, oversight and subsequent reports shall be performed and prepared by a Professional Wetland Scientist (PWS), a Certified Professional Soil Scientist (CPSS), a Certified Wildlife Biologist (CWB) or a qualified professional approved by the Conservation Commission or its Agent.
 - b) Planting plans and data on vegetation to be used shall be forwarded to the Uxbridge Conservation Commission for approval before the beginning of wetland replication activities. Replication plans and narratives shall include details on grades, vegetation types and density of plantings and wetland soils
 - c) The Uxbridge Conservation Commission office shall be notified upon completion of replication area grading and before commencement of topsoil placement and planting. The Uxbridge Conservation Commission may elect to perform a site visit to assess the progress.
 - d) Wetland replication shall occur before &/or concurrently with wetland fill so that salvaged material (soil and any vegetation) may be quickly transplanted to the replication area.
 - e) Existing wetland topsoil and vegetation (where practicable) shall be salvaged from the wetland area to be filled. Salvaged topsoil shall be used to augment soil amendments in the replication area. Salvaged wetland vegetation shall be immediately transplanted to the replication area.
 - f) An annual wetland evaluation report detailing wetland replication progress shall be submitted to the Uxbridge Conservation Commission on or before October 15th of each year until replication is deemed successful by this Commission. The annual evaluation report shall be completed by a qualified wetland scientist and shall include information on aerial extent of cover, percent species survival, individual plant species replacement, hydrology and invasive species presence, if any. A Certificate of Compliance for the project will not be issued for this project until replication is deemed successful by the Uxbridge Conservation Commission. A successful replication area shall be stabilized for at least two (2) growing seasons and in compliance with the standards and definitions in the guidance document provided by MassDEP unless otherwise approved by the Conservation Commission. An annual evaluation report shall not be required if the work has not commenced before October 15th of the subject year.
 - g) A copy of the wetland replication plans and narrative shall be provided to the wetland scientist to oversee replication and to the contractor(s) to carry out the work. A copy of the wetland replication plans and narrative shall be made available at all times for review by contractors.
 - h) Failure to abide by the conditions herein shall be grounds for the issuance of a Stop Work Order, further enforcement action &/or fines.
- 50. Upon completion of the project, the applicant must apply for a Certificate of Compliance by submitting a "Request for Certificate of Compliance (WPA Form 8A)" form and an engineer-stamped and signed "As-built plan". A lien against the parcel shall remain in effect until a Certificate of Compliance is issued.
 - 51. Record the enclosed Order of Conditions with the Worcester County Registry of Deeds and forward proof of recording to the Uxbridge Conservation Commission prior to the start of work. The applicant is responsible for maintaining a copy of the approved plan which may be requested by the Uxbridge Conservation Commission for review purposes upon the request for a Certificate of Compliance.

The additional conditions listed below shall apply to this project:

- 52. Engineer-approved Dewatering Plan submitted to the Commission or its Agent for approval prior to implementation
- 53. Dewatering activities shall not exceed sixty-days unless a written request is made by the project manager and the request is approved by the Commission at a Public Hearing.



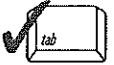
Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
WPA Form 5 – Order of Conditions
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:
312-1137
MassDEP File #
eDEP Transaction #
Uxbridge
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: Uxbridge Conservation Commission
Conservation Commission

2. This issuance is for (check one):
a. Order of Conditions b. Amended Order of Conditions

3. To: Applicant:

<u>Paul</u>	<u>Hutnak</u>	
a. First Name	b. Last Name	
<u>Town of Uxbridge</u>		
c. Organization		
<u>147 Hecla Street</u>		
d. Mailing Address		
<u>Uxbridge</u>	<u>MA</u>	<u>01569</u>
e. City/Town	f. State	g. Zip Code

4. Property Owner (if different from applicant):

<u></u>	<u></u>	
a. First Name	b. Last Name	
<u>Town of Uxbridge</u>		
c. Organization		
<u>21 South Main Street</u>		
d. Mailing Address		
<u>Uxbridge</u>	<u>MA</u>	<u>01569</u>
e. City/Town	f. State	g. Zip Code

5. Project Location:

<u>Aldrich St</u>	<u>Uxbridge</u>
a. Street Address	b. City/Town
<u>Roadway</u>	
c. Assessors Map/Plat Number	d. Parcel/Lot Number
Latitude and Longitude, if known: <u>42</u> <u>01</u> <u>m</u> <u>40</u> <u>s</u> <u>-71</u> <u>d</u> <u>38</u> <u>m</u> <u>26</u> <u>s</u>	
d. Latitude	e. Longitude



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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

a. County	b. Certificate Number (if registered land)	
N/A		
c. Book	d. Page	
	4/25/2022	5/16/2022
7. Dates:	a. Date Notice of Intent Filed	b. Date Public Hearing Closed
		5/23/2022
8. Final Approved Plans and Other Documents (attach additional plan or document references as needed): Aldrich Street Bridge Preservation		
a. Plan Title	Todd Warzecki, P.E.	
BETA Group, Inc		
b. Prepared By	c. Signed and Stamped by	
4/21/2022	1:20	
d. Final Revision Date	e. Scale	
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. <input checked="" type="checkbox"/> Public Water Supply | b. <input type="checkbox"/> Land Containing Shellfish | c. <input type="checkbox"/> Prevention of Pollution |
| d. <input checked="" type="checkbox"/> Private Water Supply | e. <input checked="" type="checkbox"/> Fisheries | f. <input checked="" type="checkbox"/> Protection of Wildlife Habitat |
| g. <input checked="" type="checkbox"/> Groundwater Supply | h. <input checked="" type="checkbox"/> Storm Damage Prevention | i. <input checked="" type="checkbox"/> 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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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	20.00 a. linear feet	b. linear feet	c. linear feet	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	627.00 a. square feet e. c/y dredged	b. square feet f. c/y dredged	c. square feet	d. square feet
7. <input type="checkbox"/> Bordering Land Subject to Flooding	a. square feet	b. square feet	c. square feet	d. square feet
Cubic Feet Flood Storage	e. cubic feet	f. cubic feet	g. cubic feet	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 checked="" type="checkbox"/> Riverfront Area	5,022.00 a. total sq. feet 0.00	5,022.00 b. total sq. feet 0.00		
Sq ft within 100 ft	c. square feet	d. square feet	e. square feet	f. square feet
Sq ft between 100-200 ft	5,022.00 g. square feet	5,022.00 h. square feet	i. square feet	j. square feet



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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	_____	_____		
	a. square feet	b. square feet		
	_____	_____		
	c. c/y dredged	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	_____	_____	_____ cu yd	_____ cu yd
	a. square feet	b. square feet	c. nourishment	d. nourishment
14. <input type="checkbox"/> Coastal Dunes	_____	_____	_____ cu yd	_____ cu yd
	a. square feet	b. square feet	c. nourishment	d. nourishment
15. <input type="checkbox"/> Coastal Banks	_____	_____		
	a. linear feet	b. linear feet		
16. <input type="checkbox"/> Rocky Intertidal Shores	_____	_____		
	a. square feet	b. square feet		
17. <input type="checkbox"/> Salt Marshes	_____	_____	_____	_____
	a. square feet	b. square feet	c. square feet	d. square feet
18. <input type="checkbox"/> Land Under Salt Ponds	_____	_____		
	a. square feet	b. square feet		
	_____	_____		
	c. c/y dredged	d. c/y dredged		
19. <input type="checkbox"/> Land Containing Shellfish	_____	_____	_____	_____
	a. square feet	b. square feet	c. square feet	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			
	_____	_____		
	a. c/y dredged	b. c/y dredged		
21. <input type="checkbox"/> Land Subject to Coastal Storm Flowage	_____	_____		
	a. square feet	b. square feet		
22. <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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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. <input type="checkbox"/> Restoration/Enhancement *:	0.00	0.00
	a. square feet of BVW	b. square feet of salt marsh
23. <input type="checkbox"/> Stream Crossing(s):	0	0
	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.
 - c. If the work is for a Test Project, this Order of Conditions shall be valid for no more than one year.
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. An Order of Conditions for a Test Project may be extended for one additional year only upon written application by the applicant, subject to the provisions of 310 CMR 10.05(11)(f).
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 5/23/2025 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.



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C. General Conditions Under Massachusetts Wetlands Protection Act

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.
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 312-1137 "
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.



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C. General Conditions Under Massachusetts Wetlands Protection Act (cont.)

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.
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.
19. The work associated with this Order (the "Project")
 - (1) is subject to the Massachusetts Stormwater Standards
 - (2) is NOT 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;



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C. General Conditions Under Massachusetts Wetlands Protection Act (cont.)

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.

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:

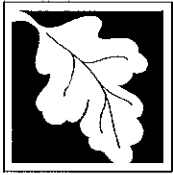
i.) the O&M Plan is complete and will be implemented upon receipt of the Certificate of Compliance, and

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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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):

See attached pages incorporated herein and made part of this Order

20. For Test Projects subject to 310 CMR 10.05(11), the applicant shall also implement the monitoring plan and the restoration plan submitted with the Notice of Intent. If the conservation commission or Department determines that the Test Project threatens the public health, safety or the environment, the applicant shall implement the removal plan submitted with the Notice of Intent or modify the project as directed by the conservation commission or the Department.



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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 Uxbridge Conservation Commission 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:

1. Municipal Ordinance or Bylaw	2. Citation
---------------------------------	-------------

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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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.

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.

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.

Signature *Paul M. Balutis*
 Signature

Printed Name Jeffrey shaw
 Printed Name Paul Balutis

Signature _____
 Signature

Printed Name Russell Holden

Signature _____
 Signature

Printed Name Tomas Etzold

Signature *Lauren Steile*
 Signature

Printed Name Philip Bertuglia
 Printed Name Lauren Steile

Signature *Melissa Shelley*
 Signature

Printed Name Melissa Shelley

by hand delivery on

by certified mail, return receipt requested, on

Date _____

Date _____

Authorized: Book-65407 Pg- 343



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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 for 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.



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G. Recording Information

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.

Uxbridge Conservation Commission
 Conservation Commission

Detach on dotted line, have stamped by the Registry of Deeds and submit to the Conservation Commission.

To:

Uxbridge Conservation Commission
 Conservation Commission

Please be advised that the Order of Conditions for the Project at:

Aldrich St	312-1137
Project Location	MassDEP File Number

Has been recorded at the Registry of Deeds of:

Worcester		
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:

5/23/2022
Date

If recorded land, the instrument number identifying this transaction is:

If registered land, the document number identifying this transaction is:

Signature of Applicant

Findings of the Uxbridge Conservation Commission
DEP #312-1137 Aldrich Street Bridge Project

Findings of Fact:

The Uxbridge Department of Public Works, the applicant, proposes to repair and remediate deficiencies occurring at the Aldrich Street bridge that conveys Aldrich Street over Aldrich Brook. The Aldrich Street bridge is a concrete box culvert built circa 1941.

Aldrich Brook is a perennial stream located south of the Aldrich Street culvert. Aldrich Pond is located north of the culvert. The resource areas on site include; bank (of Aldrich Pond and Aldrich Brook), Bordering Vegetated Wetland associated with Aldrich Pond, Land Under Water associated with Aldrich Pond and Aldrich Brook and the Riverfront Area of Aldrich Brook.

The project includes concrete repairs to the interior of the bridge, replacement of the northern concrete retaining walls, replacement and expansion of the wingwalls, replacement of existing headwalls, installation of guardrails and handrails and repaving. The proposed project will result in approximately 255 square feet of permanent impacts to Riverfront Area associated with the expansion of the wingwalls and the placement of rip rap along the slope northwest of the bridge. Approximately 5,022 square feet of temporary impacts to the Riverfront Area are associated with construction activities. Approximately 627 square feet of temporary impacts to Land Under Water Bodies are anticipated as a result of the dewatering activities necessary to complete the project.

The site Contractor is to prepare a Water Control and Dewatering Plan to be submitted to the design engineer Beta, Inc. prior to implementation. The engineer-approved Dewatering Plan will be submitted to the Commission or its Agent for further input and approval.

Findings and Conditions of the Uxbridge Conservation Commission

DEP # 312-1137 Aldrich St

Project Description: REHABILITATION OF EXISTING BRIDGE STRUCTURE CARRYING ALDRICH STREET OVER ALDRICH BROOK. WORK INCLUDES CONCRETE REPAIRS, REPOINTING AND/OR REPLACING WINGWALLS AND RETAINING WALLS, INSTALLATION OF MOMENT SLABS AND GUARDRAILS AND BRIDGE RAILS.

Approved Plans:

Plan #	Title	Engineer	Dated	Revised	Signed/Stamped by
	Aldrich Street Bridge Preservation	BETA Group, Inc	4/21/2022		Todd Warzecki, P.E.

The following conditions indicated with a checkmark shall apply to this project:

- 21. The Uxbridge Conservation Commission and its duly authorized agent shall have the right to enter the property subject to this Order for the purposes of inspection and enforcement for the duration that this Order is in effect. Denying the Conservation Commission or its agent access to the property shall be considered grounds for revoking the Order of Conditions.
- 22. This Order of Conditions shall not be considered valid until the Uxbridge Conservation Commission is in receipt of a Certificate of Understanding that has been signed and completed by the owner/applicant. The Certificate of Understanding shall not be considered complete unless each criterion has been initialed by the applicant to demonstrate an understanding of this Order of Conditions.
- 23. The Uxbridge Conservation Commission shall retain the right to require the submittal of additional information or additional construction measures deemed necessary to ensure the protection of wetland resource areas located in close proximity to the project. Construction measures may include, without limitation, additional erosion control measures.
- 24. Any proposed changes to the approved plans must be reviewed and approved by the Uxbridge Conservation Commission. Changes in the originally approved work may require the filing of a new Notice of Intent as dictated by the policy of the Massachusetts Department of Environmental Protection.
- 25. Before work may begin, the name(s) and telephone number(s) of the field engineer responsible for overseeing the installation and maintenance of erosion controls shall be provided to the Uxbridge Conservation Commission.
- 26. All erosion controls shall include a silt fence and 10 inch or larger wattles. They must be inspected and approved by the Uxbridge Conservation Commission prior to the start of work. Please call the Conservation office to schedule this site visit, the fee is \$50.00
- 27. Prior to work the site following installed sedimentation there will be an on-site pre- construction meeting. The site supervisor or applicant will meet with the Conservation Agent and will provide by email /or phone for both commencement and finishing of work at the site. Notice shall be given to the Uxbridge Conservation Commission no less than two (2) business days prior to the commencement of construction activities. Failure to notify the Conservation Commission or its agent may result in enforcement in the form of a Stop Work Order until proper communication is established between the Conservation Commission and operator of the project site.
- 28. Prior to any disturbance on the site, the applicant or his/her representative shall submit a schedule to the Conservation Commission and it's Agent for review and approval. The schedule shall include a sequence of events with approximate dates of activities relevant to this Order of Conditions, including, without limitation:
 - a) Placement of sediment and erosion controls;
 - b) Site preparation;
 - c) Tree cutting;
 - d) Construction activities;
 - e) Stabilization of the site;
 - f) Key dates or milestones for activities; and
 - g) Site management information including names, addresses, phone number and e-mail addresses of site contractors.

Findings and Conditions of the Uxbridge Conservation Commission

DEP # 312-1137 Aldrich St

- 29. Before any work on-site begins, all other applicable federal, state /or local permits /or approvals must be obtained. Said permits and approvals may include but are not limited to: Approved Definitive Subdivision plan, Zoning Permit, Building Permit, Board of Health approval for septic systems, etc. The Conservation Commission may contact the appropriate board or department to verify that such permits have been issued.
- 30. Unless otherwise stated by the Conservation Commission or its Agent, all project sites with an authorized limit of disturbance of two (2) acres or greater shall require a dumpster on the property located outside of resource areas and their jurisdictional limits. All trash and construction debris from the site will be deposited in the dumpster. This dumpster shall be emptied at a minimum of at least once every two (2) weeks or more often if necessary. Construction waste shall not be buried on the property under any circumstances. All contractors and operators of the site are required to be informed of the appropriate procedure for waste disposal.
- 31. A copy of the approved plans and Order of Conditions shall be kept on-site and available for review at all times. All contractors are expected to adhere to the approved plan and these Conditions
- 32. The boundaries of all wetland resource areas shall be clearly demarcated with flagging. Wetland flagging shall remain in place until all work is completed and a Certificate of Compliance is issued by the Uxbridge Conservation
- 33. No unsuitable material of any kind (i.e. stumps, roots, trash, debris, etc.) may be buried, placed or dispersed within a wetland, watercourse or within the jurisdictional limits afforded to these resource areas unless otherwise authorized by the Conservation Commission or its Agent. This shall be a condition in perpetuity and shall be noted in the Certificate of Compliance.
- 34. Erosion control measures to include straw wattles, compost socks and staked silt fence shall be installed along the limit of work as shown on the approved Plan of Record. Hay bales are no longer permissible within jurisdictional resource areas or their buffer zones. Straw wattles and compost socks shall overlap by at least one (1) horizontal foot to prevent breaches from occurring. Earth shall not be backfilled against or allowed to overtop erosion control barriers. The Conservation Commission or its Agent may require the erosion barrier to be replaced if the barrier is in jeopardy of breaching.
- 35. Erosion control barriers shall be inspected regularly and maintained at all times. If a breach of the erosion control barriers occurs, the Uxbridge Conservation Commission shall be notified, and measures shall be taken to remediate said breach under the guidance of the Commission. Silt and sand accumulating behind said barriers shall be removed regularly. The Conservation Commission also requires that erosion and sedimentation control devices be inspected within twenty-four (24) hours following each reportable storm event over .5" and repaired and replaced as necessary.
- 36. Erosion control barriers shall remain in place until a Certificate of Compliance is issued for said work or upon written authorization from the Uxbridge Conservation Commission. Upon issuance of a Certificate of Compliance, silt fencing and stakes must be removed unless otherwise requested by the Uxbridge Conservation Commission.
- 37. The area of construction shall remain in a stable condition at the close of each construction day. Stable conditions include, but are not limited to, proper maintenance of erosion controls and stockpiling of soil or debris.
- 38. All equipment shall be inspected regularly for leaks. Any leaking hydraulic lines, cylinders, or any other components shall be fixed immediately. Any release on the property which is reported to the Massachusetts Department of Environmental Protection, Bureau of Waste Site Cleanup (MassDEP, BWSC) shall be subsequently reported to the Conservation Commission within twenty-four (24) hours of said incident. Any documents provided to MassDEP, BWSC pertaining to said release shall be forwarded to the Conservation Commission or its Agent for record.
- 39. Construction materials, vehicles, portable toilets and earth shall be stored outside of the 100-foot buffer zone of wetland resource areas or 200-foot Riverfront Areas, unless otherwise demarcated and authorized on the approved

Findings and Conditions of the Uxbridge Conservation Commission

DEP # 312-1137 Aldrich St

- 40. Refueling of vehicles shall not take place within wetland resource areas, the 100-foot buffer zone of wetland resource areas and/or 200-foot Riverfront Areas.
- 41. The applicant is required to maintain the project site in a manner that is consistent with its Stormwater Pollution Prevention Plan (SWPPP) when such a plan is required. If a project is found to be in violation of its SWPPP, it is therefore considered to be in violation of this Order of Conditions. Applicants must forward a copy of the respective SWPPP to the Conservation Commission or its Agent and any subsequent reports pertaining to the management of stormwater runoff on the property when these documents are prepared for distribution. No work approved by this Order of Conditions may commence on the property until a SWPPP has been authorized for projects wherein such a plan is required.
- 42. An OMP Report shall be submitted quarterly to the Conservation Commission electronically.

Findings and Conditions of the Uxbridge Conservation Commission

DEP # 312-1137 Aldrich St

- 43. The Conservation Commission may require that more than the first inch of rainfall to be treated if stormwater is discharged within 50 horizontal feet of a cold-water fishery.
- 44. Unplanned stormwater runoff shall be reported to the Conservation Commission or its Agent. The Conservation Commission may require additional treatment techniques to detain and managed unexpected stormflow.
- 45. Upon completion of the project, all exposed soil areas shall be stabilized and re-vegetated. Areas not permanently stabilized by December 1st, shall be temporarily stabilized by installation of erosion control blankets or other method approved by the Uxbridge Conservation Commission.
- 46. This Order of Conditions shall apply to any successor in interest or successor in control of the property subject to this Order.
- 47. Any damage to wetland resource areas shall be the responsibility of any successor in interest or successor in control to remediate.
- 48. Certain conditions are ongoing and do not expire upon completion of the project or the issuance of a Certificate of Compliance. Some of these conditions include as follows:
 - a) Synthetic Herbicides, pesticides, or chemical fertilizers shall not be used within wetland resource areas or 100-foot buffer zone of wetland resource areas.
 - b) Snow shall not be stockpiled within wetland resource areas and buffer zones. Signs reading "NO Snow Stockpiled in This Area" will be added every 20' along the 25' disturb line on the parcel.
 - c) Snow shall only be stored as shown on the approved plan. All snow removed from trailer roof tops will be plan in snow stock areas as shown on approved plan.
 - d) Snow stored within jurisdiction of the Conservation Commission shall be cleaned in the spring of each calendar year of any accumulated sand or debris following the melt off of all snow; this area shall be reseeded as necessary for restoration of vegetated cover disturbed through snow management of the project site. Sand and debris shall be removed to a proper disposal location away from any wetlands or their jurisdictional limits unless otherwise authorized by the Conservation Commission.
 - e) All snow removed from the roof top of trailers shall be placed in only the Stockpile areas shown on the revised plan.
 - f) Wetland resource areas as well as buffer zones shall be kept free of debris, litter or other extraneous material including landscaping refuse.
 - g) Location of erosion control barriers per the approved plan(s) is understood to be the limit of work &/or landscaping unless otherwise authorized by the Conservation Commission. No construction, clearing, or landscaping beyond the erosion control barriers shall occur either during project activities or after project completion, without express permission from the Uxbridge Conservation Commission.
 - h) As described in the Conservation Commission's setback policy, no land disturbance shall be allowed within twenty-five (25) horizontal feet of any freshwater wetland unless otherwise authorized by the Conservation Commission as shown on the approved plans related to the project. Maintenance of existing lawns within this 25-foot area is allowed so long as said maintenance is completed in a manner that is consistent with the standards and definitions of the Wetlands Protection Act and its regulations. This condition shall be maintained in perpetuity after a Certificate of Compliance is issued.
- 49. Any wetland replication shall conform to the guidance set forth by the Massachusetts Department of Environmental Protection in Guidance - BRP/DWM/WetG02-2; Massachusetts Inland Wetland Replication Guidelines.

Findings and Conditions of the Uxbridge Conservation Commission

DEP # 312-1137 Aldrich St

- a) The name and contact information of the wetland scientist responsible for replication design, oversight and annual report submittal shall be forwarded in writing to the Uxbridge Conservation Commission office before the commencement of work. Design, oversight and subsequent reports shall be performed and prepared by a Professional Wetland Scientist (PWS), a Certified Professional Soil Scientist (CPSS), a Certified Wildlife Biologist (CWB) or a qualified professional approved by the Conservation Commission or its Agent.
 - b) Planting plans and data on vegetation to be used shall be forwarded to the Uxbridge Conservation Commission for approval before the beginning of wetland replication activities. Replication plans and narratives shall include details on grades, vegetation types and density of plantings and wetland soils
 - c) The Uxbridge Conservation Commission office shall be notified upon completion of replication area grading and before commencement of topsoil placement and planting. The Uxbridge Conservation Commission may elect to perform a site visit to assess the progress.
 - d) Wetland replication shall occur before &/or concurrently with wetland fill so that salvaged material (soil and any vegetation) may be quickly transplanted to the replication area.
 - e) Existing wetland topsoil and vegetation (where practicable) shall be salvaged from the wetland area to be filled. Salvaged topsoil shall be used to augment soil amendments in the replication area. Salvaged wetland vegetation shall be immediately transplanted to the replication area.
 - f) An annual wetland evaluation report detailing wetland replication progress shall be submitted to the Uxbridge Conservation Commission on or before October 15th of each year until replication is deemed successful by this Commission. The annual evaluation report shall be completed by a qualified wetland scientist and shall include information on aerial extent of cover, percent species survival, individual plant species replacement, hydrology and invasive species presence, if any. A Certificate of Compliance for the project will not be issued for this project until replication is deemed successful by the Uxbridge Conservation Commission. A successful replication area shall be stabilized for at least two (2) growing seasons and in compliance with the standards and definitions in the guidance document provided by MassDEP unless otherwise approved by the Conservation Commission. An annual evaluation report shall not be required if the work has not commenced before October 15th of the subject year.
 - g) A copy of the wetland replication plans and narrative shall be provided to the wetland scientist to oversee replication and to the contractor(s) to carry out the work. A copy of the wetland replication plans and narrative shall be made available at all times for review by contractors.
 - h) Failure to abide by the conditions herein shall be grounds for the issuance of a Stop Work Order, further enforcement action &/or fines.
- 50. Upon completion of the project, the applicant must apply for a Certificate of Compliance by submitting a "Request for Certificate of Compliance (WPA Form 8A)" form and an engineer-stamped and signed "As-built plan". A lien against the parcel shall remain in effect until a Certificate of Compliance is issued.
 - 51. Record the enclosed Order of Conditions with the Worcester County Registry of Deeds and forward proof of recording to the Uxbridge Conservation Commission prior to the start of work. The applicant is responsible for maintaining a copy of the approved plan which may be requested by the Uxbridge Conservation Commission for review purposes upon the request for a Certificate of Compliance.

The additional conditions listed below shall apply to this project:

- 52. Engineer-approved Dewatering Plan submitted to the Commission or its Agent for approval prior to implementation.
- 53. Dewatering activities shall not exceed sixty-days unless a written request is made by the project manager and the request is approved by the Commission at a Public Hearing.

APPENDIX C

- Army Corps General Permits
 - Ironstone Road
 - Carney Street
 - Aldrich Street



DEPARTMENT OF THE ARMY
US ARMY CORPS OF ENGINEERS
NEW ENGLAND DISTRICT
696 VIRGINIA ROAD
CONCORD MA 01742-2751

August 20, 2024

Regulatory Division
File Number: NAE-2022-01047

Paul Hutnak
Town of Uxbridge
147 Hecla Street
Uxbridge, Massachusetts 01569
(Via Email): phutnak@uxbridge-ma.gov

Dear Paul Hutnak:

This is in response to a recent request dated June 24, 2024, to reauthorize a project authorized by the Department of the Army permit number NAE-2022-01047 on July 18, 2022. The authorization was to discharge fill below the Ordinary High Water (OHW) mark of Waters of the U.S. in order to temporarily impact 320 square feet and 8 linear feet for the installation of water control structures, erosion control materials, and restoration of the original grade at project completion as part of rehabilitating the Ironstone Street Bridge. The project activities are hereby reauthorized under the June 2, 2023, Massachusetts General Permits. This project is located on Bacon Brook, Ironstone Road, Uxbridge, Massachusetts 01569 at site coordinates 42.02774, - 71.60988. The work is shown on the enclosed plans titled "TOWN OF UXBRIDGE, MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS IRONSTONE ROAD BRIDGE PRESERVATION" on 11 sheets and dated "APRIL 2022".

Based on the information that you have provided, we verify that the activity is authorized under General Permit # 23 of the June 2, 2023, federal permit known as the Massachusetts General Permits (GPs). The GPs are available at <https://www.nae.usace.army.mil/Missions/Regulatory/State-General-Permits/Massachusetts-General-Permit>.

Please review the enclosed GPs carefully, in particular the general conditions beginning on page 35, and ensure that you and all personnel performing work authorized by the GPs are fully aware of and comply with its terms and conditions. A copy of the GPs and this verification letter shall be available at the work site as required by General Condition 17. You must perform this work in compliance with the following special condition(s):

- 1) You must complete and return the enclosed Work Start Notification Form to this office at least two weeks before the anticipated start date. The form shall be emailed to Maninder Singh at Maninder.Singh@usace.army.mil and cenae-r@usace.army.mil; or mailed to Maninder Singh, Regulatory Division, U.S. Army

Corps of Engineers, New England District, 696 Virginia Road, Concord, Massachusetts 01742-2751.

- 2) You must complete and return the enclosed Compliance Certification Form to this office within one month of the completion of work. The form shall be emailed to Maninder Singh at Maninder.Singh@usace.army.mil and cenae-r@usace.army.mil; or mailed to Maninder Singh, Regulatory Division, U.S. Army Corps of Engineers, New England District, 696 Virginia Road, Concord, Massachusetts 01742-2751.

This authorization expires on June 1, 2028. You must commence or have under contract to commence the work authorized herein by June 1, 2028, and complete the work by June 1, 2029. If not, you must contact this office to determine the need for further authorization and we recommend you contact us *before* the work authorized herein expires. Please contact us immediately if you change the plans or construction methods for work within our jurisdiction as we must approve any changes before you undertake them. Performing work within our jurisdiction that is not specifically authorized by this determination or failing to comply with the special condition(s) provided above or all the terms and conditions of the GPs may subject you to the enforcement provisions of our regulations.

This authorization does not obviate the need to obtain other federal, state, or local authorizations required by law. Applicants are responsible for applying for and obtaining any other approvals.

We continually strive to improve our customer service. To better serve you, we would appreciate your completing our Customer Service Survey located at <https://regulatory.ops.usace.army.mil/customer-service-survey>.

Please contact Maninder Singh of my staff at (978) 318-8967 or (978)-257-6884 or Maninder.Singh@usace.army.mil if you have any questions.

Sincerely,

Paul Maniccia

Paul Maniccia
Chief, Massachusetts Section
Regulatory Division

Enclosures

Cc:

Todd Warzecki, BETA Group, Inc.; TWarzecki@BETA-Inc.com

Ed Reiner, U.S. EPA, Region 1, Boston, MA, reiner.ed@epa.gov

Rachel Croy, U.S. EPA, Region 1, Boston, MA, croy.rachel@epa.gov

DEP CERO, Wetlands and Waterways, Worcester, MA; cero_noi@mass.gov

David Robinson, MA Board of Underwater Archaeological Resources (BUAR);

david.s.robinson@mass.gov

Uxbridge Conservation Commission, EPetro@uxbridge-ma.gov

TOWN OF UXBRIDGE, MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS IRONSTONE ROAD BRIDGE PRESERVATION APRIL 2022

BOARD OF SELECTMEN

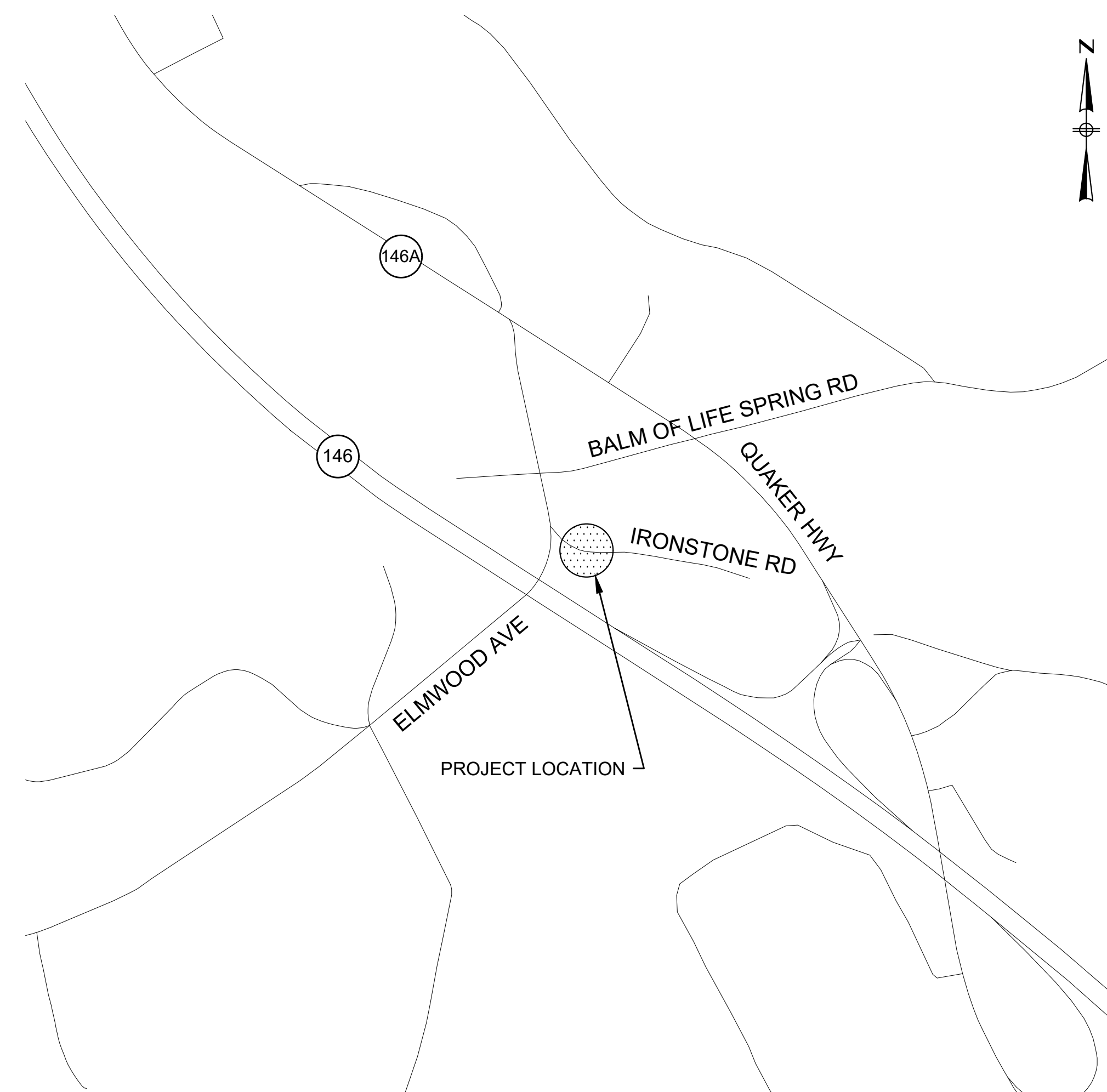
BRIAN BUTLER
JEFF SHAW
STEPHEN MANDILE
SUSAN FRANZ
BRIAN PLASKO

TOWN MANAGER

STEVEN SETTE

DEPARTMENT OF PUBLIC WORKS

BENN S. SHERMAN, P.E., DIRECTOR
PAUL HUTNUK, P.E., CIVIL ENGINEER



LOCATION MAP
SCALE: 1" = 500'

PLAN INDEX

<u>SHEET NO.</u>	<u>DESCRIPTION</u>
1	COVER SHEET
2	GENERAL NOTES & LEGEND
3	CONSTRUCTION PLAN AND PROFILE
4	CONSTRUCTION DETAILS
5	BRIDGE COVER SHEET
6	STRUCTURAL DETAILS
7	CONCRETE REPAIR DETAILS
8	THRIE BEAM DETAILS (1 OF 2)
9	THRIE BEAM DETAILS (2 OF 2)
10	TEMPORARY TRAFFIC CONTROL PLAN

**100%
SUBMISSION**

PREPARED BY:



www.BETA-Inc.com

ISSUE DATE: APRIL 5, 2022

REGISTERED PROFESSIONAL _____ DATE _____

LEGEND

GENERAL SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		CURB OR BERM (TYPE AS NOTED)
		EDGE OF PAVEMENT
		CATCH BASIN (OR GUTTER INLET, LEACHING BASIN, DROP INLET, CATCH BASIN CURB INLET)
		ELECTRIC HANDHOLE (NUMBER AS NOTED)
		ELECTRIC MANHOLE
		TELEPHONE MANHOLE
		WATER MANHOLE
		SEWER MANHOLE
		DRAINAGE MANHOLE
		GAS GATE
		WATER GATE
		CURB STOP
		HYDRANT
		FIRE ALARM BOX
		PARKING METER
		STREET LIGHT POLE
		UTILITY POLE
		UTILITY POLE w/ LIGHT
		SIGN
		GUY POLE
		DRAIN PIPE (SIZE AS NOTED)
		SEWER MAIN (SIZE AS NOTED)
		ELECTRIC DUCT
		GAS MAIN (SIZE AS NOTED)
		WATER MAIN (SIZE AS NOTED)
		TELEPHONE DUCT (SIZE AS NOTED)
		OVERHEAD WIRE
		MAIL BOX
		WOOD GUARD RAIL STEEL BEAM GUARD, WOOD OR STEEL POSTS (TYPE AS NOTED)
		STEEL GUARD RAIL, STEEL POSTS (TYPE NOTED)
		STONE WALL
		RETAINING WALL (TYPE NOTED)
		HIGHWAY/PROPERTY BOUND (TYPE AS NOTED)
		STATE HIGHWAY LAYOUT LINE (SHLO)
		CITY, TOWN OR COUNTY LAYOUT LINE (R.O.W.)
		CITY, TOWN, COUNTY OR STATE BOUNDARY LINE
		PROPERTY LINE
		EASEMENT LINE (TYPE NOTED)
		CONSTRUCTION BASELINE
		SURVEY LINE
		RAILROAD OR STREET RAILWAY TRACKS WITH SIDELINES
		WHEELCHAIR RAMP
		TREE (SIZE AND TYPE AS NOTED)
		HEDGE/SHRUBS
		FENCE (SIZE AND TYPE AS NOTED)
		EDGE OF WETLAND w/ FLAGGED NUMBER
		EDGE OF RIVER/STREAM LINE
		100-FT. WETLAND BUFFER LIMIT
		100-FT. RIVER FRONT LIMIT
		200-FT. RIVER FRONT LIMIT
		WOODED AREA / LIMIT OF CLEARING
		SPOT GRADE
		SAW CUT LINE
		TEST PIT
		BORING
		EROSION CONTROL BARRIER/COMPOST FILTER TUBES

ABBREVIATIONS

GENERAL

ABAN	ABANDON
ADJ	ADJUST
ALT	ALTERATION
APPROX	APPROXIMATE
BL	BASELINE
BB	BITUMINOUS BERM
BC	BITUMINOUS CURB
BD OR BND	BOUND
BLDG	BUILDING
BO	BY OTHERS
BOS	BOTTOM OF SLOPE
BOW	BOTTOM OF WALL
BSW	BACK OF SIDEWALK
CC	CONCRETE CURB
CEM	CEMENT
CLF	CHAIN LINK FENCE
CONC	CONCRETE
CONST	CONSTRUCTION
CONT	CONTINUOUS
DWY	DRIVEWAY
EP, EOP	EDGE OF PAVEMENT
EL	ELEVATION
ESMT	EASEMENT
EXIST	EXISTING
FDN	FOUNDATION
GRAN	GRANITE
GC	GRANITE CURB
HOR	HORIZONTAL
IP	IRON PIPE
JCT	JUNCTION
LP	LOW POINT
MB	MAIL BOX
MHB	MASSACHUSETTS HIGHWAY BOUND
OC	ON CENTER
PCC	POINT OF COMPOUND CURVATURE
PC	POINT OF CURVATURE
PRC	POINT OF REVERSE CURVATURE
PI	POINT OF INTERSECTION
PT	POINT OF TANGENCY
PVC	POINT OF VERTICAL CURVATURE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY
PERM	PERMANENT
PGL	PROFILE GRADE LINE
PROP	PROPOSED
PVC	POINT OF VERTICAL CURVATURE
PVMT	PAVEMENT
R	RADIUS OF CURVATURE
R&D	REMOVE AND DISCARD
R&R	REMOVE AND RESET
R&S	REMOVE AND STACK
REM	REMOVE
REMOD	REMODEL
RET	RETAIN
RR	RAILROAD
RT	RIGHT
SB	SOUTH BOUND OR STONE BOUND
SW	SIDEWALK
SHT	SHEET
SHLD	SHOULDER
STA	STATION
TEMP	TEMPORARY
TOS	TOP OF SLOPE
TOW	TOP OF WALL
TYP	TYPICAL
VAR	VARIABLE
VERT	VERTICAL
VGC	VERTICAL GRANITE CURB
WCR	WHEELCHAIR RAMP

TRAFFIC SIGNAL SYSTEMS

R	STEADY CIRCULAR RED
Y	STEADY CIRCULAR AMBER
G	STEADY CIRCULAR GREEN
FR	FLASHING CIRCULAR RED
FY	FLASHING CIRCULAR AMBER
+FY	FLASHING YELLOW LEFT ARROW
R-	STEADY RED RIGHT ARROW
Y-	STEADY AMBER RIGHT ARROW
G-	STEADY GREEN RIGHT ARROW
+R	STEADY RED LEFT ARROW
+Y	STEADY AMBER LEFT ARROW
+G	STEADY GREEN LEFT ARROW
W	STEADY WALK (PERSON WALKING) - LUNAR WHITE
DW	STEADY DON'T WALK (HAND) - PORTLAND ORANGE
FDW	FLASHING DON'T WALK (FLASHING HAND) - PORTLAND ORANGE

UTILITIES

CB	CATCH BASIN
CBCI	CATCH BASIN WITH CURB INLET
CI	CURB INLET
CIP	CAST IRON PIPE
CMP	CORRUGATED METAL PIPE
C	CONDUIT
CPP	CORRUGATED PLASTIC PIPE
CSP	CORRUGATED STEEL PIPE
DI	DUCTILE IRON PIPE
F&C	FRAME AND COVER
F&G	FRAME AND GRATE
FM	FORCE MAIN
GI	GUTTER INLET
GIP	GALVANIZED IRON PIPE
GG	GAS GATE
HYD	HYDRANT
INV	INVERT ELEVATION
LP	LIGHT POLE
MH	MANHOLE
PVC	POLY-VINYL-CHLORIDE PIPE
RCP	REINFORCED CONCRETE PIPE (CLASS III UNLESS NOTED)
SD	SUBDRAIN
SMH	SEWER MANHOLE
TS	TRAFFIC SIGNAL
UP	UTILITY POLE
UPL	UTILITY POLE w/ LIGHT
UPT	UTILITY POLE w/ TRANSFORMER
VCP	VITRIFIED CLAY PIPE
WG	WATER GATE
WM	WATER METER/WATER MAIN

TRAFFIC SIGNAL SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		CONTROL CABINET GROUND MOUNTED WITH FOUNDATION
		CONTROL CABINET POLE MOUNTED
		CONTROLLER PHASE
		MAST ARM, SHAFT & BASE (ARM LENGTH AS NOTED)
		VEHICULAR SIGNAL HEAD (ALPHA-NUMERIC DESIGNATION AS NOTED)
		VEHICULAR SIGNAL HEAD, OPTICALLY PROGRAMMED
		VEHICULAR SIGNAL HEAD (REMOVED & RESET)
		FLASHING BEACON
		PEDESTRIAN SIGNAL HEAD
		PEDESTRIAN SIGNAL HEAD, OPTICALLY PROGRAMMED
		PULL BOX 12"x12" OR HANDHOLE
		LOOP DETECTOR
		PEDESTRIAN PUSH BUTTON, SIGN (DIRECTIONAL ARROW AS SHOWN) AND SADDLE
		PRE-EMPTION DETECTOR
		PRE-EMPTION CONFIRMATION STROBE
		SIGNAL CONDUIT (SINGLE RUN)
		SIGNAL CONDUIT (DOUBLE RUN)
		SIGNAL POST & BASE
		MAGNETIC DETECTOR
		SCHOOL ZONE SPEED LIMIT SIGN
		MICROWAVE OR ULTRASONIC DETECTOR
		VIDEO DETECTION CAMERA
		VIDEO DETECTION ZONE

PAVEMENT MARKINGS AND SIGNING SYMBOLS

PROPOSED

CW	CROSSWALK, 2 - 12" WHITE LINES (8" WIDTH)
SL	STOP LINE - 12" WHITE LINE 4" BEHIND CW (TYP.)
SWEL	SOLID WHITE EDGE LINE - 4"
SWCHL	SOLID WHITE CHANNELIZING LINES - 12" (SPACING NOTED)
SWG	SOLID WHITE GORE LINE 12" @ 33", (SPACING NOTED)
SWLL	SOLID WHITE LANE LINE - 4"
SWPL	SOLID WHITE PARKING LINE - 4"
BWLL	BROKEN WHITE LANE LINE - 4"
DWLEX	DOTTED WHITE LANE EXTENSION LINE - 4" (2' LINE & 6' GAP)
DYLEX	DOTTED YELLOW LANE EXTENSION LINE - 4" (2' LINE & 6' GAP)
BYCL	BROKEN YELLOW CENTERLINE - 4"
DYCL	DOUBLE YELLOW CENTERLINE - 2 - 4" LINES
SYEL	SOLID YELLOW EDGE LINE - 4"
SYGL	SOLID YELLOW GORE LINE 12" @ 33", (SPACING NOTED)
SYLL	SOLID YELLOW LANE LINE - 4"
SYCTEL	SOLID YELLOW CYCLE TRACK EDGE LINE - 4"
DYCTCL	DOTTED YELLOW CYCLE TRACK CENTERLINE - 4" (3' LINE & 9' GAP)
SCHOOL	SCHOOL ZONE - WHITE
	HANDICAP SYMBOL - WHITE
	PAVEMENT ARROW - WHITE
ONLY	LEGEND "ONLY" - WHITE

4/5/2022 3:34 PM \\BETA\IN-BDR01\UXBRIDGE\7546 - UXBRIDGE - SMALL BRIDGE CONTRACT\DRAWING FILES\PLANSET\IRONSTONE\7546_SR\LEGEND_IRONSTONE.DWG (BETA STE BW STB)

NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

DRAWN BY:	SD
DESIGNED BY:	BB
CHECKED BY:	TW

REGISTERED PROFESSIONAL
Not for Construction



SUBCONSULTANT

SCALE
NONE

TITLE
**Ironstone Road Bridge Improvements
Uxbridge, Massachusetts**
LEGEND AND ABBREVIATIONS
BRIDGE NO. U-02-069

BETA JOB NO. 7545
ISSUE DATE
SHEET NO. 2

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

HIGHWAY GUARD DETAILS

TRANSITION TO NCHRP 350 GUARDRAIL STA 0+38.5 TO 0+72 LT
 TRANSITION TO THRIE BEAM STA 0+72 TO 0+78 LT
 BRIDGE THRIE BEAM GUARDRAIL 0+78 TO 1+17 LT
 TRANSITION TO THRIE BEAM STA 1+17 TO 1+23 LT
 GUARDRAIL - TL-2 (SINGLE FACED) 1+23 TO 1+42.5 LT
 GUARDRAIL TANGENT END TREATMENT, TL-2 STA 1+42.5 TO 1+67.5 LT

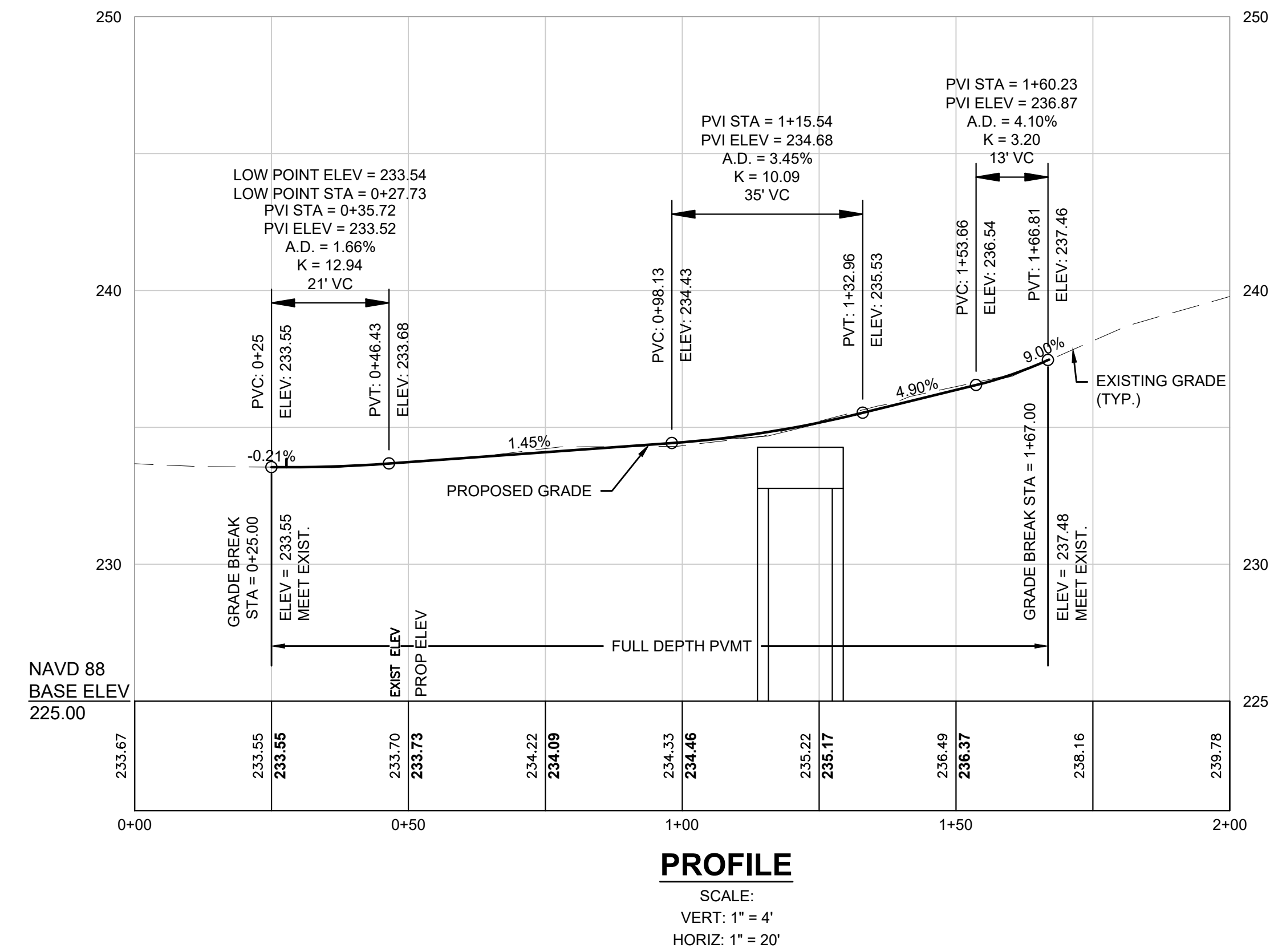
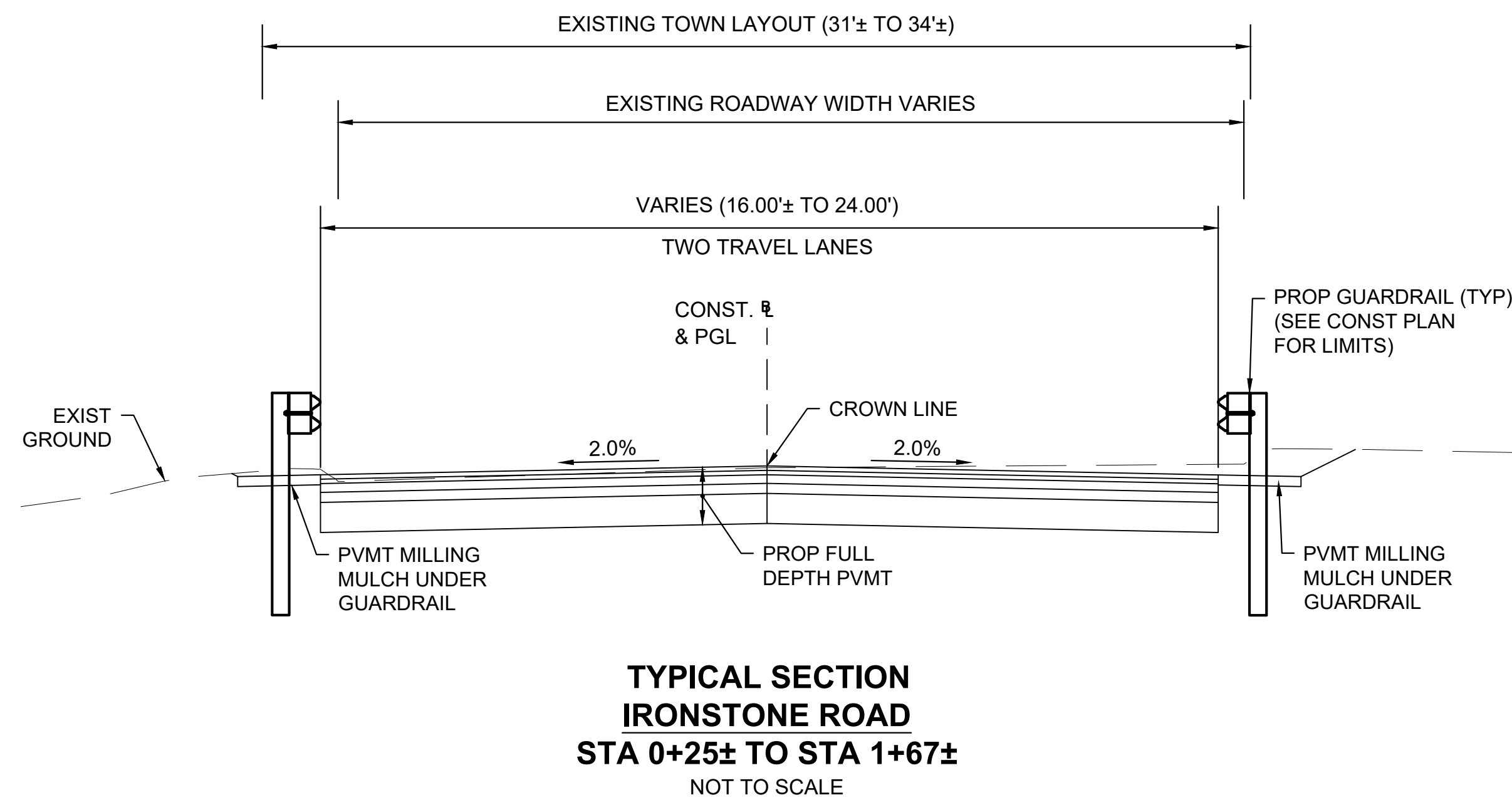
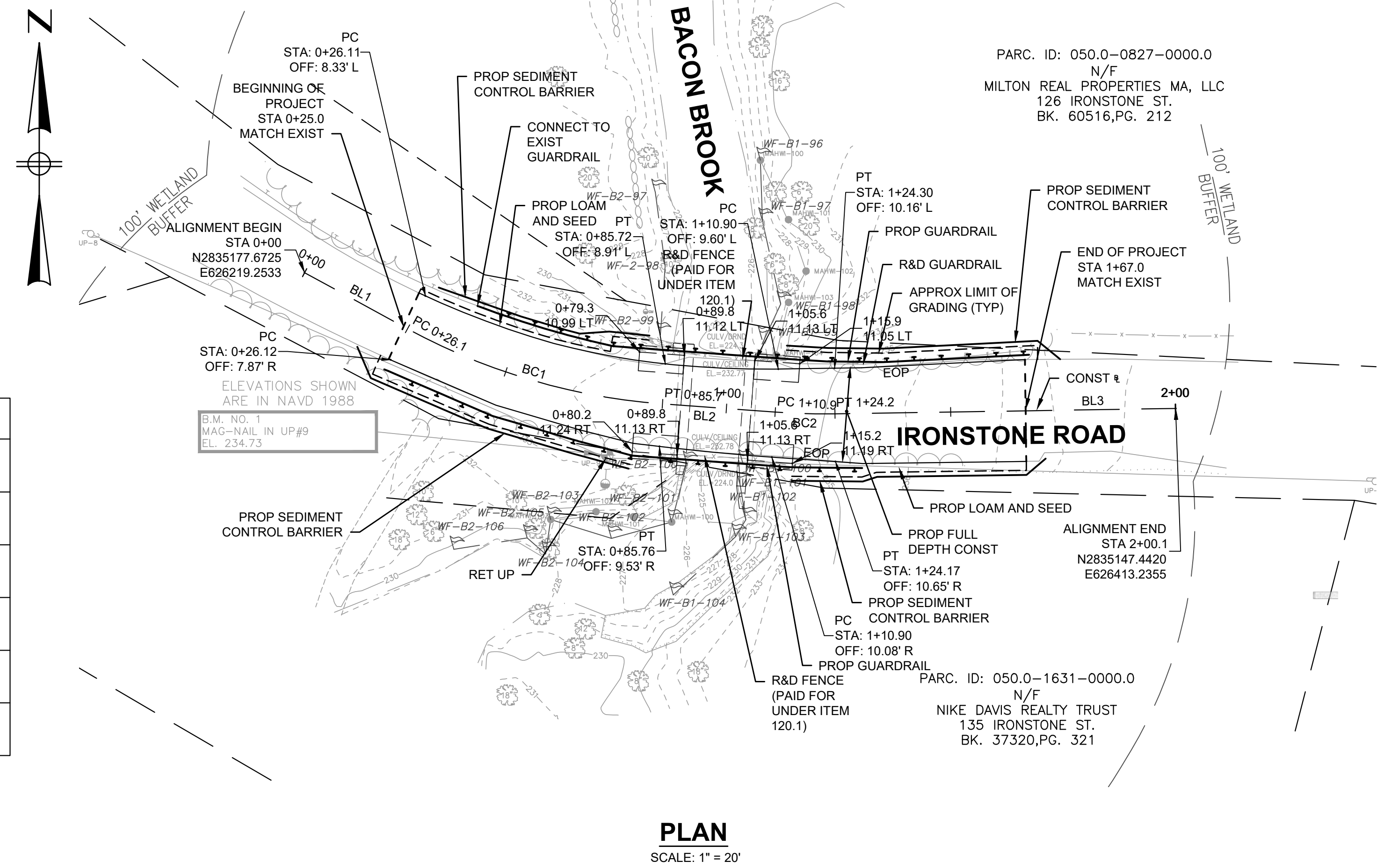
GUARDRAIL TANGENT END TREATMENT, TL-2 STA 0+25 TO 0+50 RT
 GUARDRAIL - TL-2 (SINGLE FACED) 0+50 TO 0+73 RT
 TRANSITION TO THRIE BEAM STA 0+73 TO 0+79 RT
 BRIDGE THRIE BEAM GUARDRAIL STA 0+79 TO 1+16 RT
 TRANSITION TO THRIE BEAM STA 1+16 TO 1+22 RT
 TRAILING ANCHORAGE STA 1+22 TO 1+30 RT

PAVEMENT NOTES

FULL DEPTH PAVEMENT
 SURFACE COURSE: 1-3/4" SUPERPAVE SURFACE COURSE - 12.5 (SSC-12.5) OVER ASPHALT EMULSION FOR TACK COAT (RS-1H) OVER
 INTERMEDIATE COURSE: 1-3/4" SUPERPAVE INTERMEDIATE COURSE - 12.5 (SIC-12.5) OVER ASPHALT EMULSION FOR TACK COAT (RS-1H) OVER
 BASE COURSE: 3-1/2" SUPERPAVE BASE COURSE - 37.5 (SBC-37.5) OVER
 SUB-BASE: 4" DENSE GRADED CRUSHED STONE FOR SUB-BASE OVER 8" GRAVEL BORROW TYPE b (M1.03.01)

PROJECT TACK COAT NOTES
 TACK COAT: ASPHALT EMULSION FOR TACK COAT, GRADE RS-1 SHALL BE PLACED AT A RATE OF:
 0.07 GALLONS PER SQUARE YARD OVER MILLED SURFACES
 0.07 GALLONS PER SQUARE YARD OVER CEMENT CONCRETE
 BASE COURSE
 0.05 GALLONS PER SQUARE YARD OVER SMOOTH TIGHT PAVEMENTS
 PRIOR TO PAVING AN OVERLAY

IRONSTONE ROAD CL CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
BL1	0+00.00	2835177.6725	626219.2533		S61°24'17"E 26.11'	0+26.11	2835165.1750	626242.1799
BC1	0+26.11	2835165.1750	626242.1799	R = 140.00' Δ = 24°24'07" L = 59.63' T = 30.27'		0+85.74	2835148.4728	626298.9494
BL3	0+85.74	2835148.4728	626298.9494		S85°48'24"E 25.16'	1+10.90	2835146.6327	626324.0456
BC2	1+10.90	2835146.6327	626324.0456	R = 150.00' Δ = 5°05'38" L = 13.34' T = 6.67'		1+24.24	2835146.2497	626337.3715
BL2	1+24.24	2835146.2497	626337.3715		N89°05'58"E 75.87'	2+00.11	2835147.4420	626413.2355



4/5/2022 3:34 PM \\BETA\IN\BDR01\UXBRIDGE\46 - UXBRIDGE - SMALL BRIDGE CONTRACT\DRAWING FILES\PLANSET\IRONSTONE\7545_S\CONSTRUCTION PLAN AND PROFILE\IRONSTONE.DWG (BETA STB BW.STB)

NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

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 DESIGNED BY: BB
 CHECKED BY: TW

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SCALE: AS SHOWN

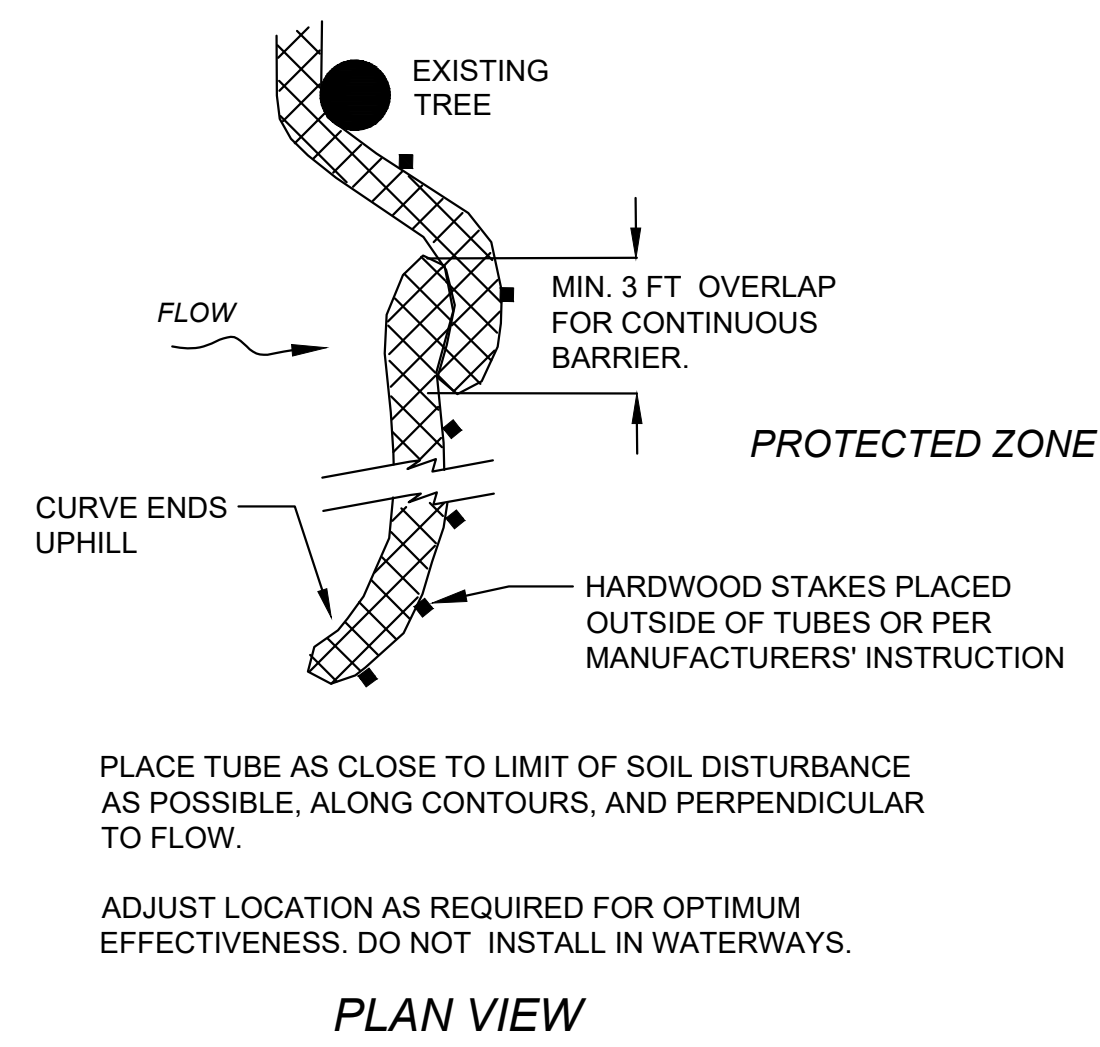
TITLE: **Ironstone Road Bridge Improvements
Uxbridge, Massachusetts
CONSTRUCTION PLAN AND PROFILE**

BRIDGE NO. U-02-069

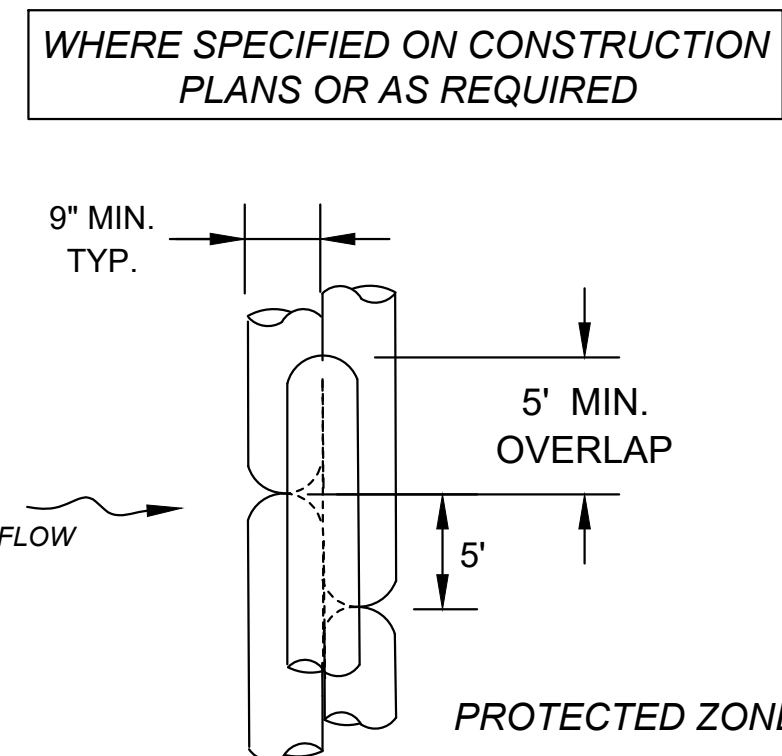
BETA JOB NO. 7545
 ISSUE DATE: _____
 SHEET NO. 3

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

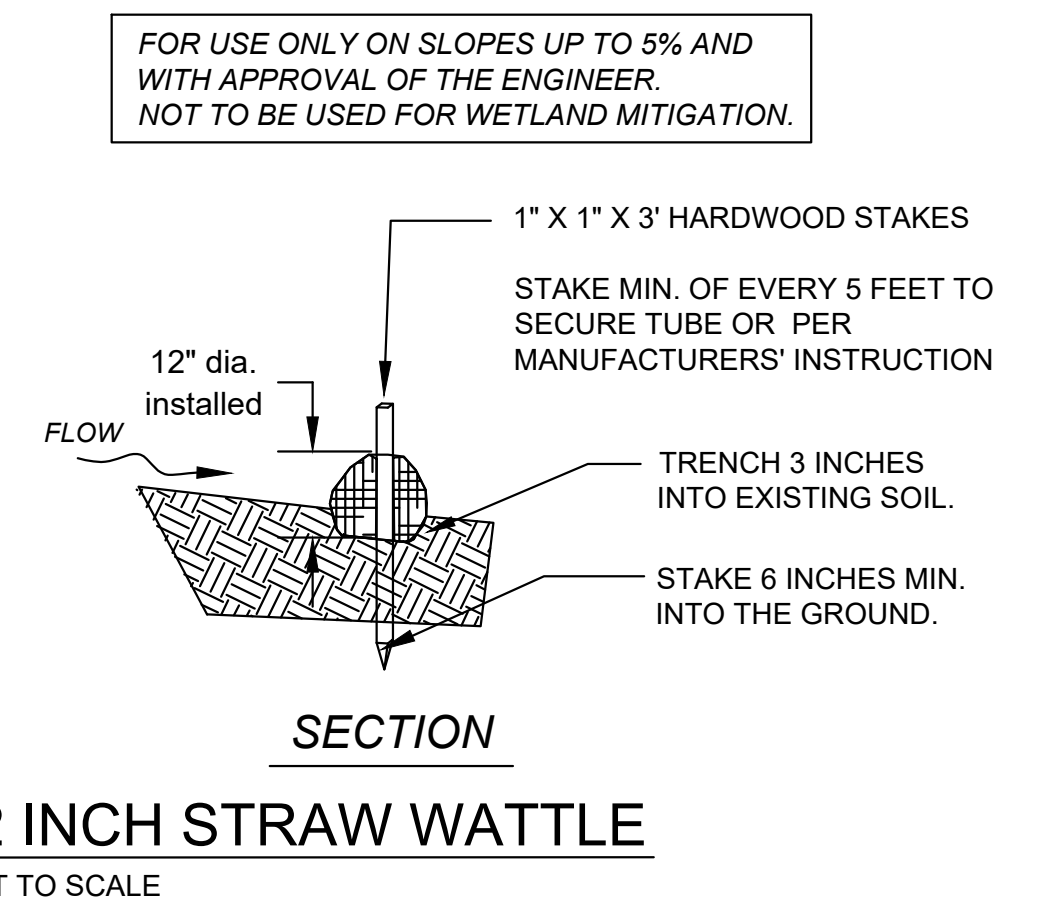
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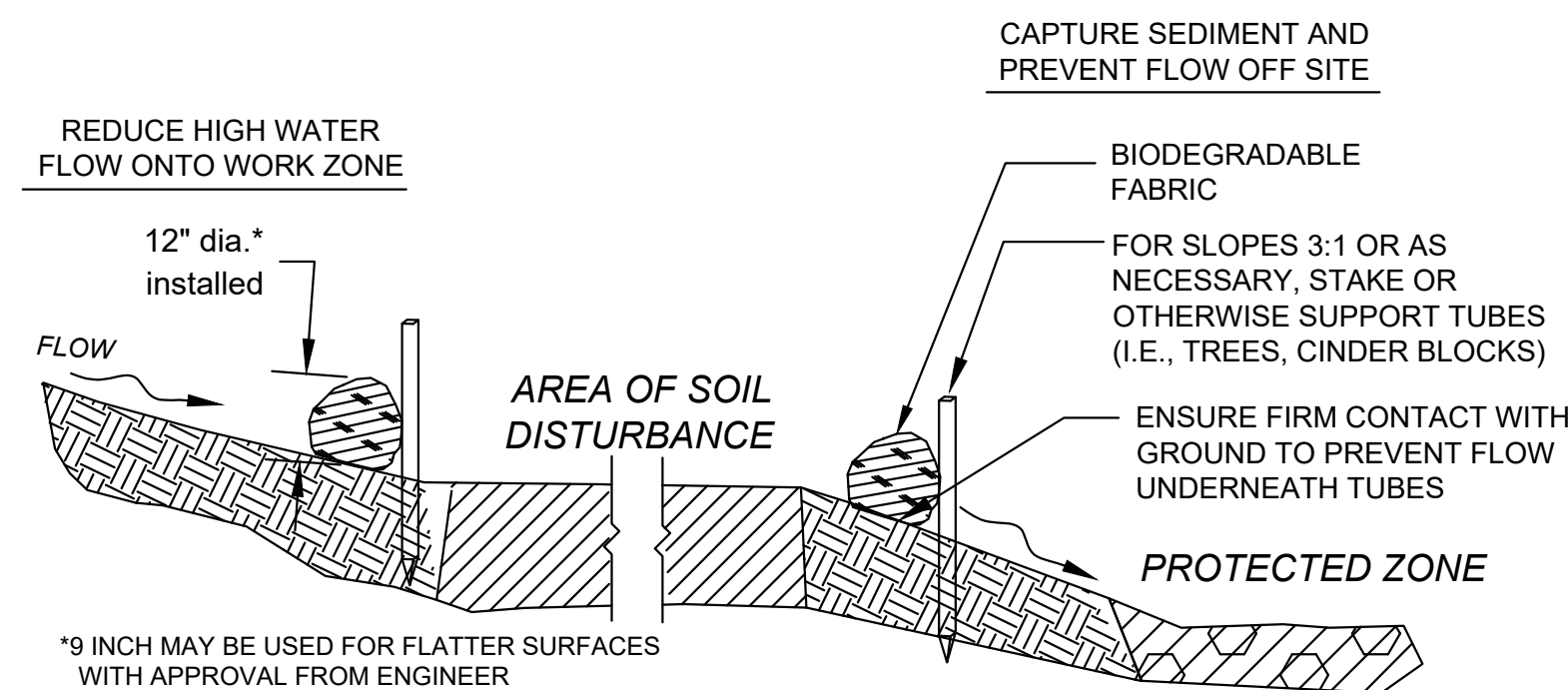
PLAN VIEW



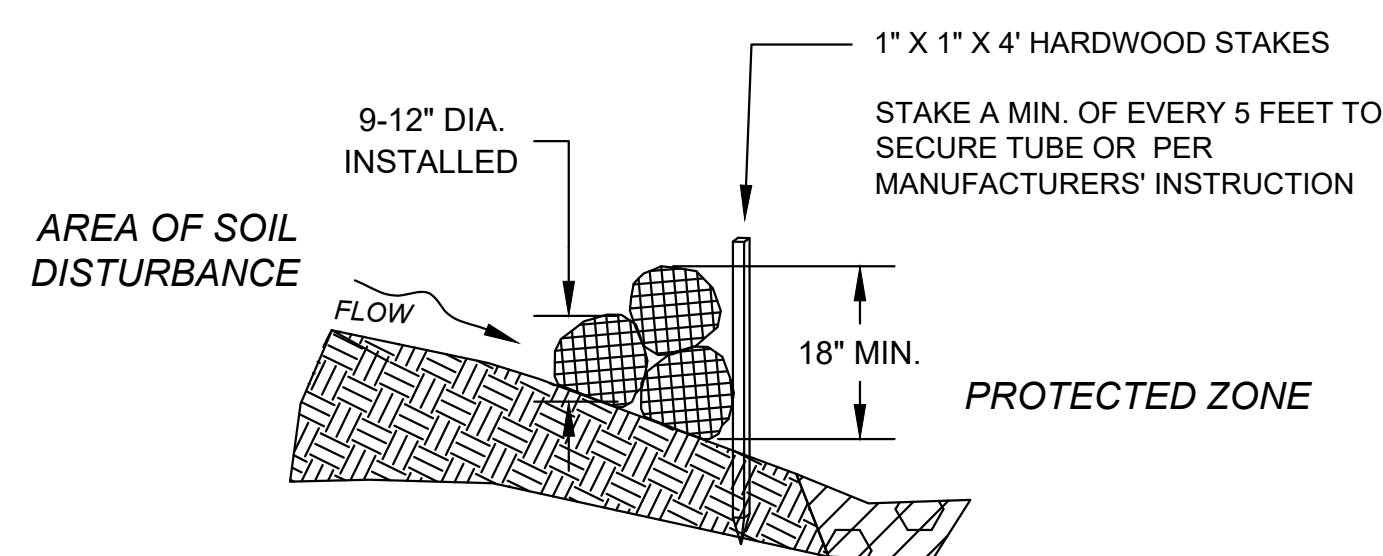
PLAN VIEW



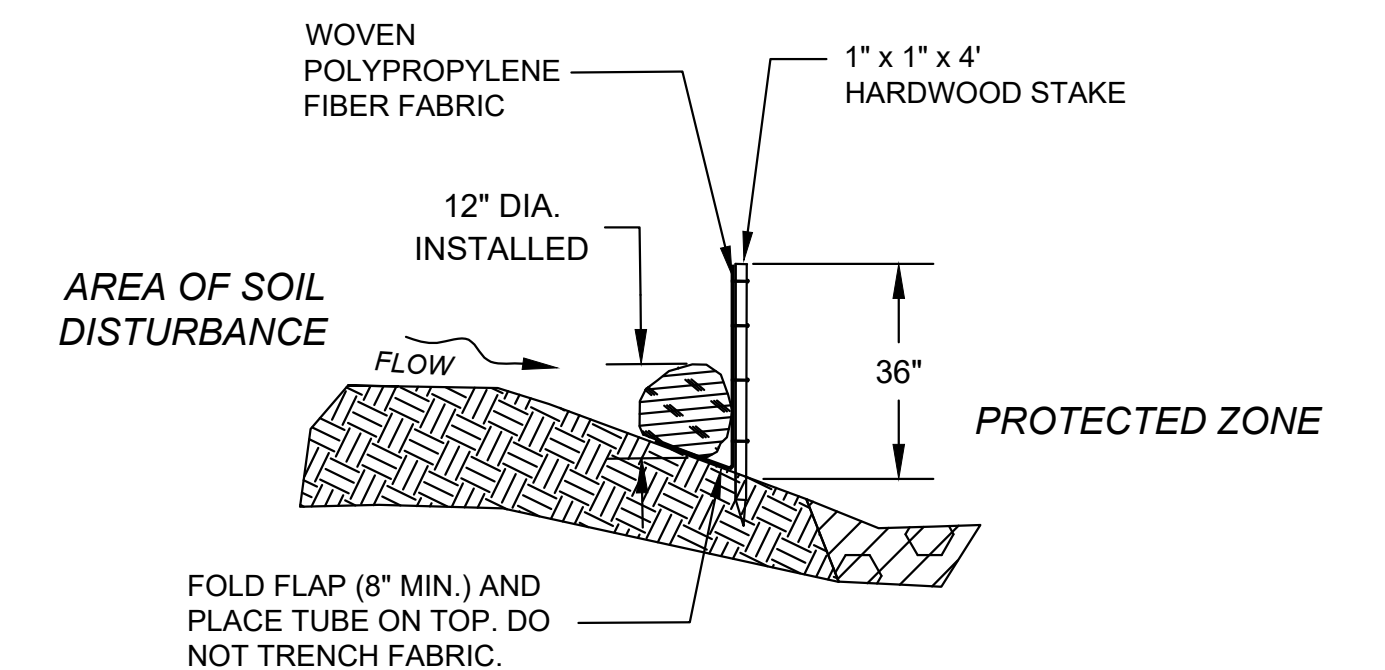
SECTION
12 INCH STRAW WATTLE
NOT TO SCALE



SECTION
SEDIMENT BARRIER - COMPOST FILTER TUBE
NOT TO SCALE



SECTION
COMPOST FILTER TUBES STACKED
NOT TO SCALE



SECTION
COMPOST FILTER TUBE & SILT FENCE
NOT TO SCALE

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NONE

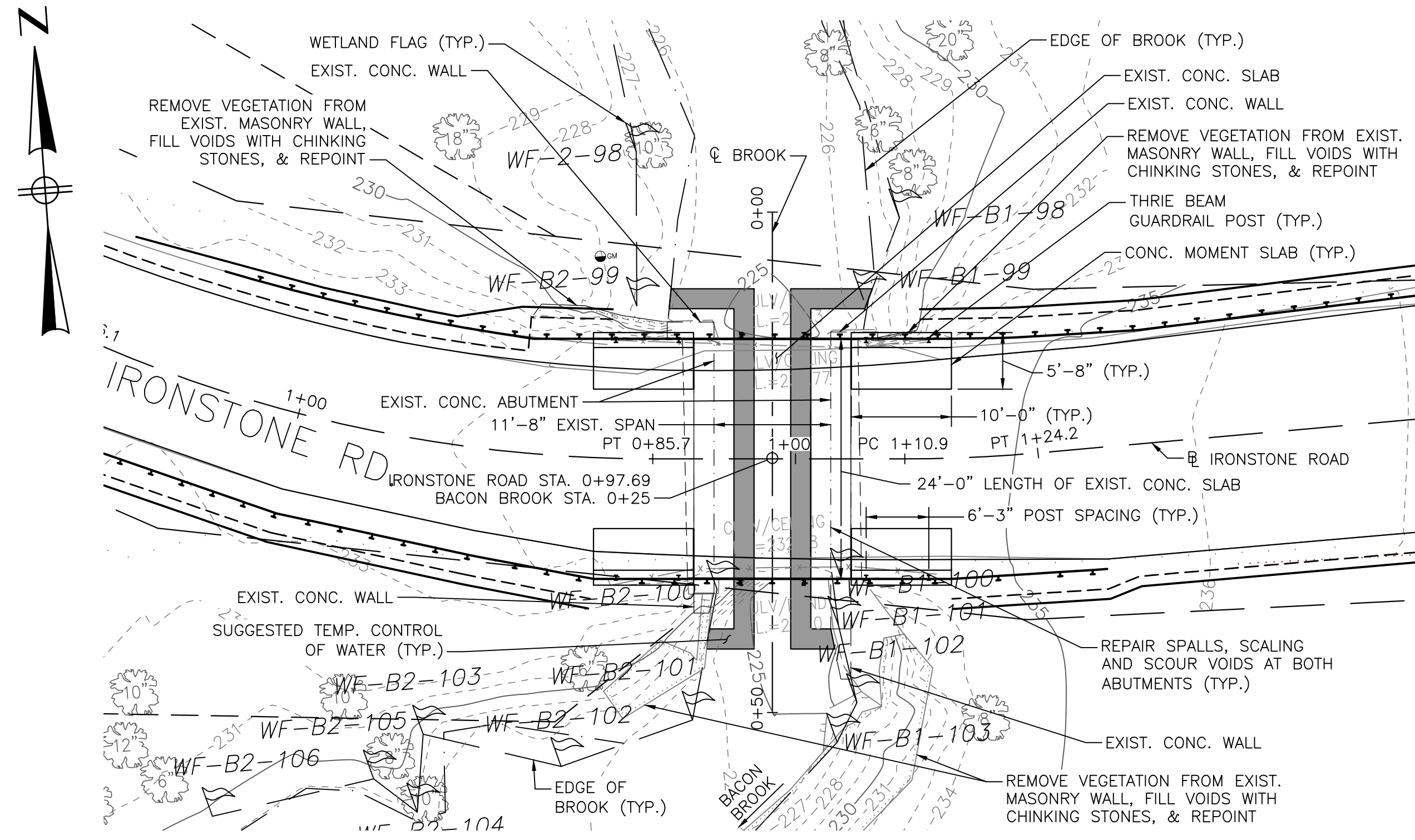
TITLE
**Ironstone Road Bridge Improvements
Uxbridge, Massachusetts**
CONSTRUCTION DETAILS

BRIDGE NO. U-02-069

BETA JOB NO. 7545
ISSUE DATE
SHEET NO. 4

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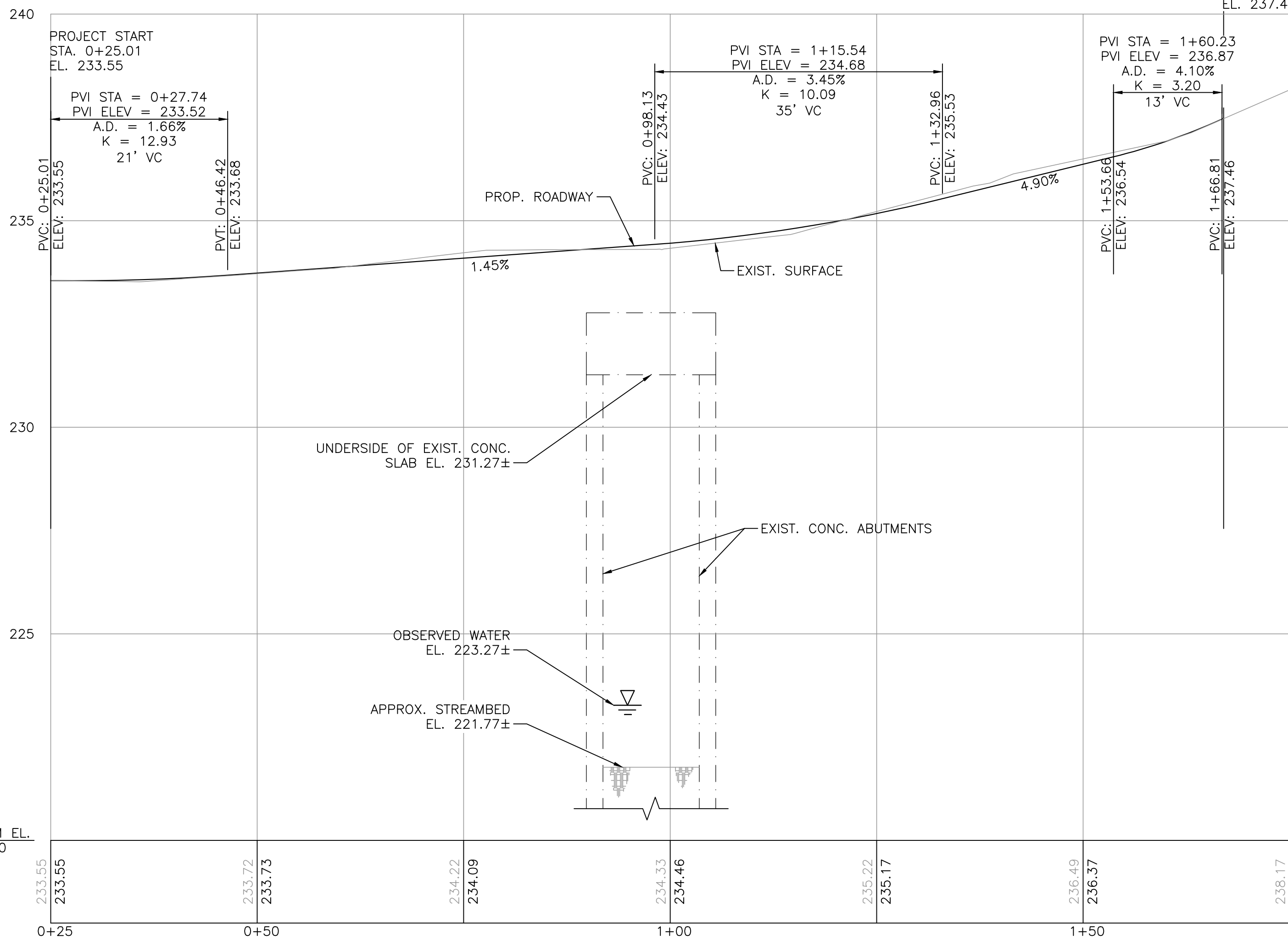
IRONSTONE ROAD CURVE DATA
SEE SHEET 3 FOR HORIZONTAL CURVE DATA



KEY PLAN

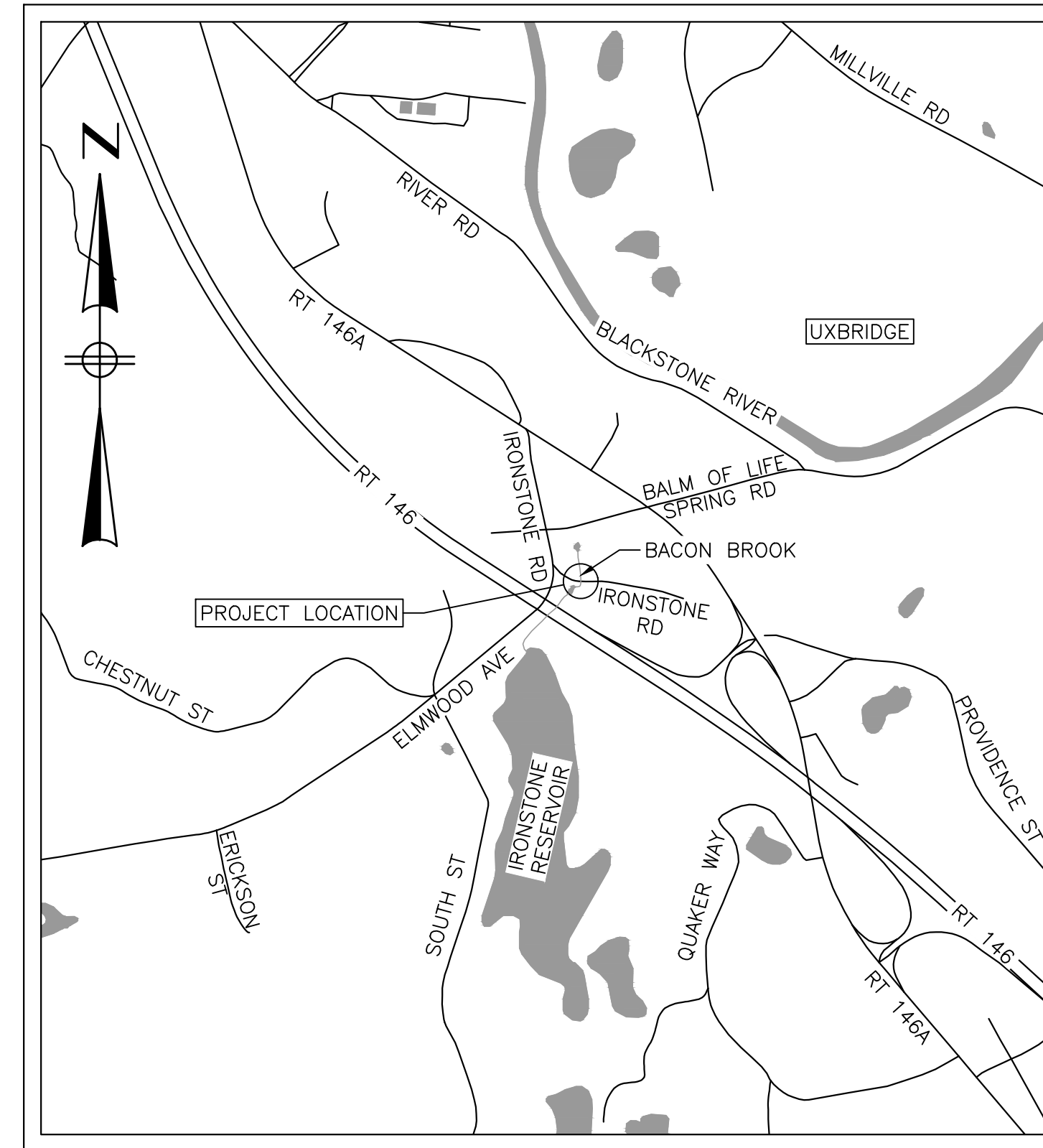
SCALE: 1/8" = 1'-0"

PROJECT END
STA. 1+67.00
EL. 237.48



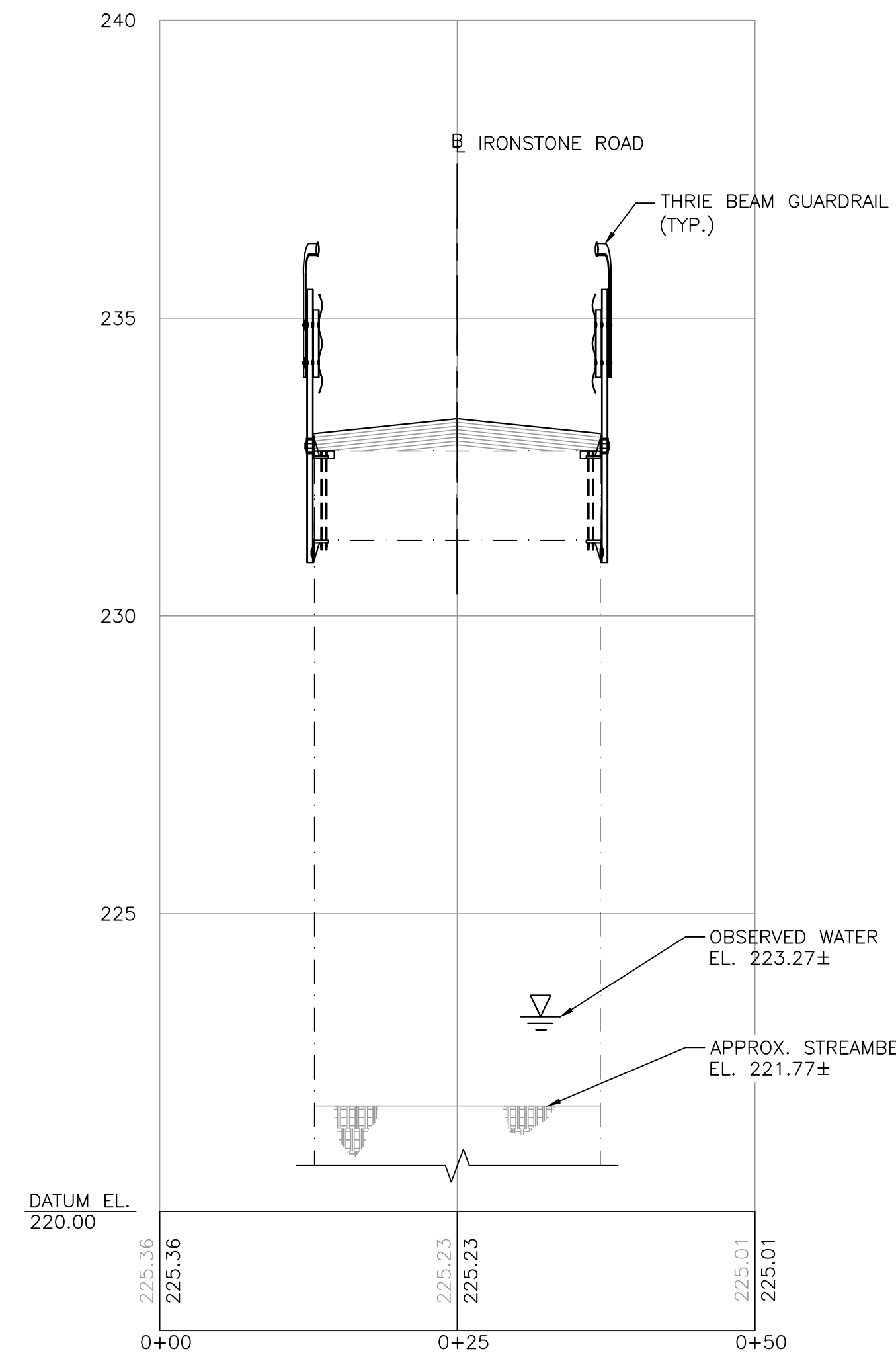
IRONSTONE ROAD PROFILE

HORIZONTAL SCALE: 1/8" = 1'-0"
VERTICAL SCALE: 1/8" = 1'-0"



LOCUS

SCALE: 1" = 1000'



BACON BROOK PROFILE

HORIZONTAL SCALE: 1/32" = 1'-0"
VERTICAL SCALE: 1/32" = 1'-0"

GENERAL NOTES	
PROJECT FILE NO.:	NA
PROJECT DESCRIPTION:	PROPOSED BRIDGE PRESERVATION
BRIDGE DESIGN LOADING:	HL-93
SURVEY:	GOLDSMITH, PREST & RINGWALL, INC.
ELEVATION REFERENCE:	NAVD OF 1988

BENCHMARK: MAG-NAIL
LOCATION: UP#9
NORTHING: 34021644.55
EASTING: 7515439.82
ELEVATION: 234.73'

HYDRAULIC DESIGN DATA
DRAINAGE AREA: 5.80 SQUARE MILES
DESIGN FLOOD DISCHARGE: UNK CUBIC FEET PER SECOND
DESIGN FLOOD FREQUENCY: UNK YEARS
DESIGN FLOOD VELOCITY: UNK FEET PER SECOND
DESIGN FLOOD ELEVATION: UNK FEET, NAVD

BASE (100-YEAR) FLOOD DATA
BASE FLOOD DISCHARGE: UNK CUBIC FEET PER SECOND
BASE FLOOD ELEVATION: UNK 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: UNKNOWN
EVIDENCE OF SCOUR AND EROSION: UNKNOWN
DESIGN: IN ACCORDANCE WITH THE 2020 9TH EDITION AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR HL-93 LOADING.
GENERAL:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING, COORDINATING, AND VERIFYING ALL DIMENSIONS.

THE CONTRACTOR SHALL COORDINATE ALL EXISTING UTILITY LOCATIONS.

ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE MASSDOT STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGES-2022 EDITION.

THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER WHEN, IN THE COURSE OF CONSTRUCTION, CONDITIONS ARE UNCOVERED WHICH ARE UNANTICIPATED OR OTHERWISE APPEAR TO PRESENT A DANGEROUS CONDITION.

FOR DIMENSIONS AND DETAILS NOT SHOWN, REFER TO HIGHWAY DRAWINGS.

NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988 IS USED THROUGHOUT.
FOUNDATIONS:

FOOTING SHALL BE FOUNDED ON UNDISTURBED INORGANIC SOIL. THE ELEVATION OF FOOTING SHALL BE SUCH THAT IT DOES NOT FALL WITHIN A ONE VERTICAL TO TWO HORIZONTAL SLOPE FROM THE BASE OF ANY ADJACENT FOOTING OR UTILITY.

BEARING SOIL SHALL BE INSPECTED BEFORE FOUNDATION CONSTRUCTION. NO FOOTING CONCRETE SHALL BE PLACED IN WATER OR ON FROZEN SUBGRADE MATERIAL.

NO BACKFILL SHALL BE PLACED AGAINST WALL OR MOMENT SLAB UNTIL THE CONCRETE HAS ATTAINED A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI.

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE TEMPORARY SUPPORT AND DEWATERING AS NECESSARY DURING EXCAVATION TO MAINTAIN THE INTEGRITY OF EXISTING STRUCTURES, ACTIVE UTILITIES, AND STREETS.

WALL FOOTINGS SHALL BE UNDERLAIN BY A MINIMUM ONE FOOT OF COMPACTED GRAVEL BORROW COMPACTED IN 6" LIFTS TO 95% OF THE MAXIMUM DRY DENSITY.

REINFORCEMENT:

ALL REINFORCING STEEL SHALL BE EPOXY COATED AND SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 31 GRADE 60.

CONCRETE:

ALL CONCRETE SHALL BE 4000 PSI - 1 1/2" - 565 LB/CY HP. 1.

4/5/2022 3:34 PM \\BETA\IN\BDR01\UXBRIDGE\646 - UXBRIDGE - SMALL BRIDGE CONTRACT\DRAWING FILES\PLANSET\7545 - SR(COVERSHEET)-IRONSTONE.DWG (BETA STB BW STB)

NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

DRAWN BY:	BN
DESIGNED BY:	TW
CHECKED BY:	TW

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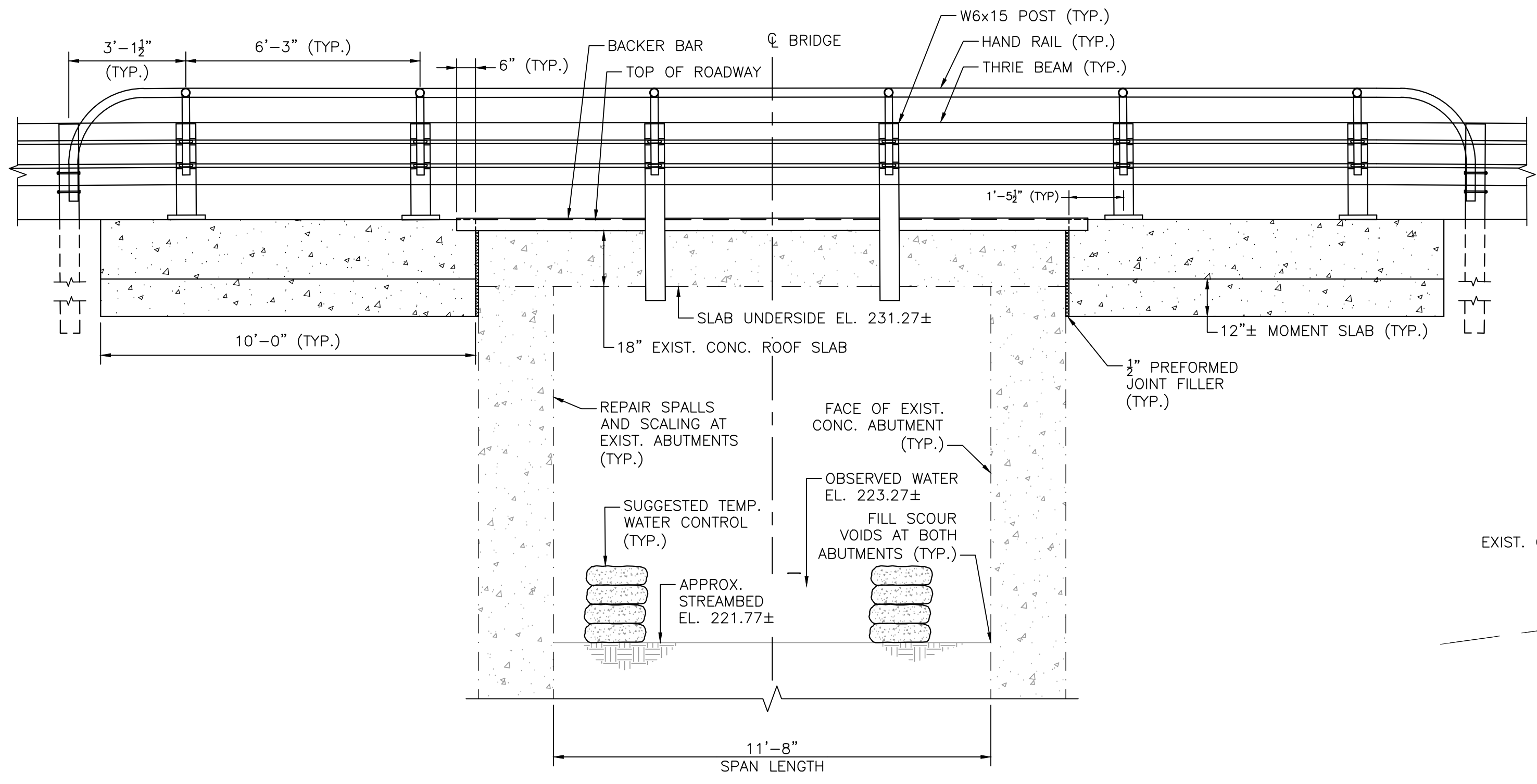
SCALE
AS SHOWN
UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

TITLE

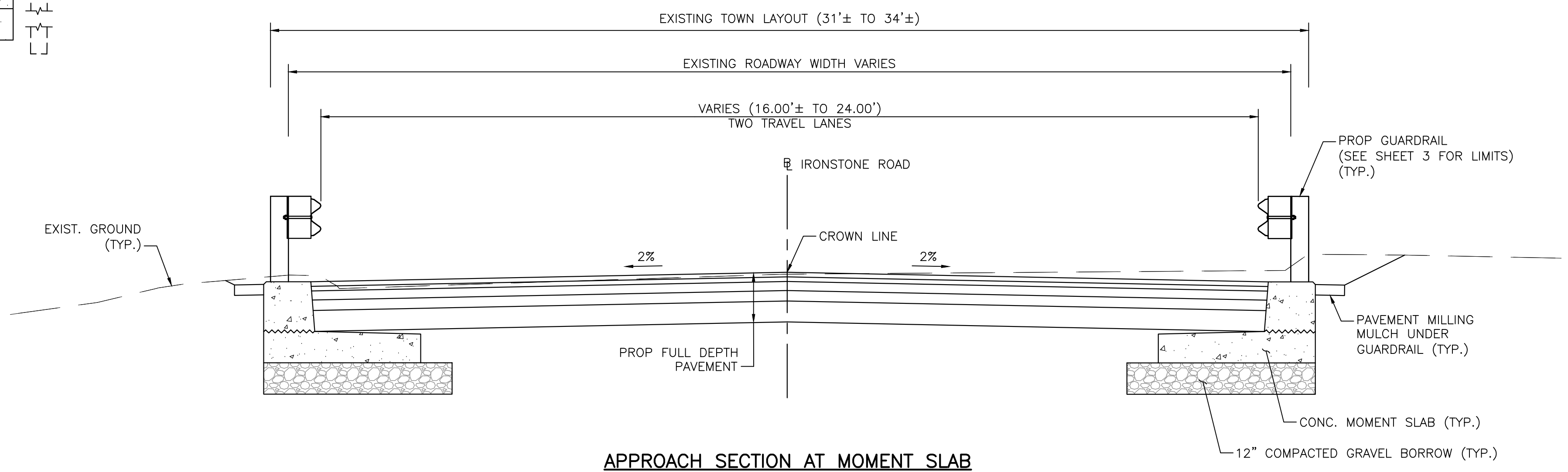
Ironstone Road Bridge Improvements
Uxbridge, Massachusetts
BRIDGE COVER SHEET

BETA JOB NO. 7545
ISSUE DATE
SHEET NO. 5

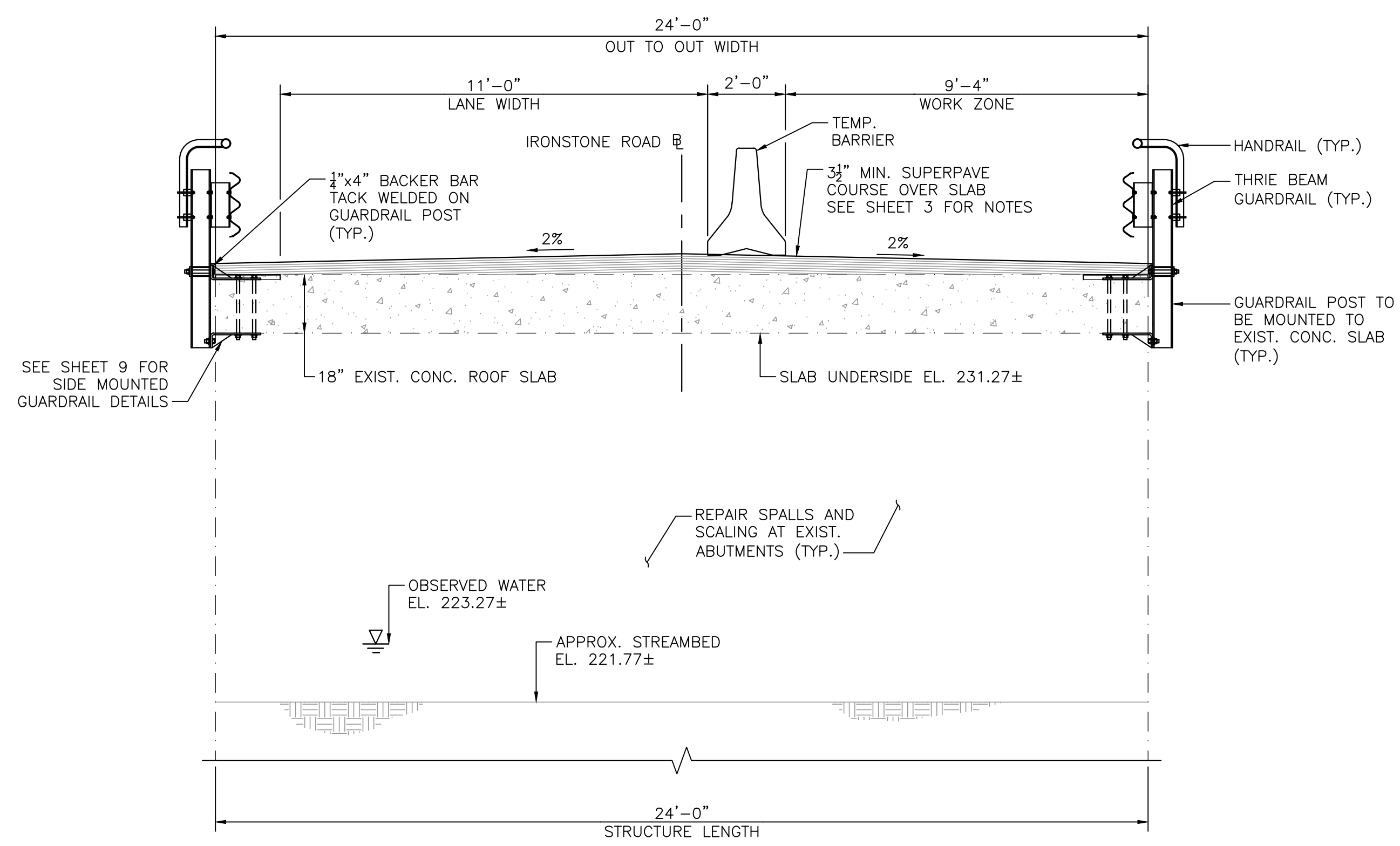
BRIDGE NO. 0-02-069



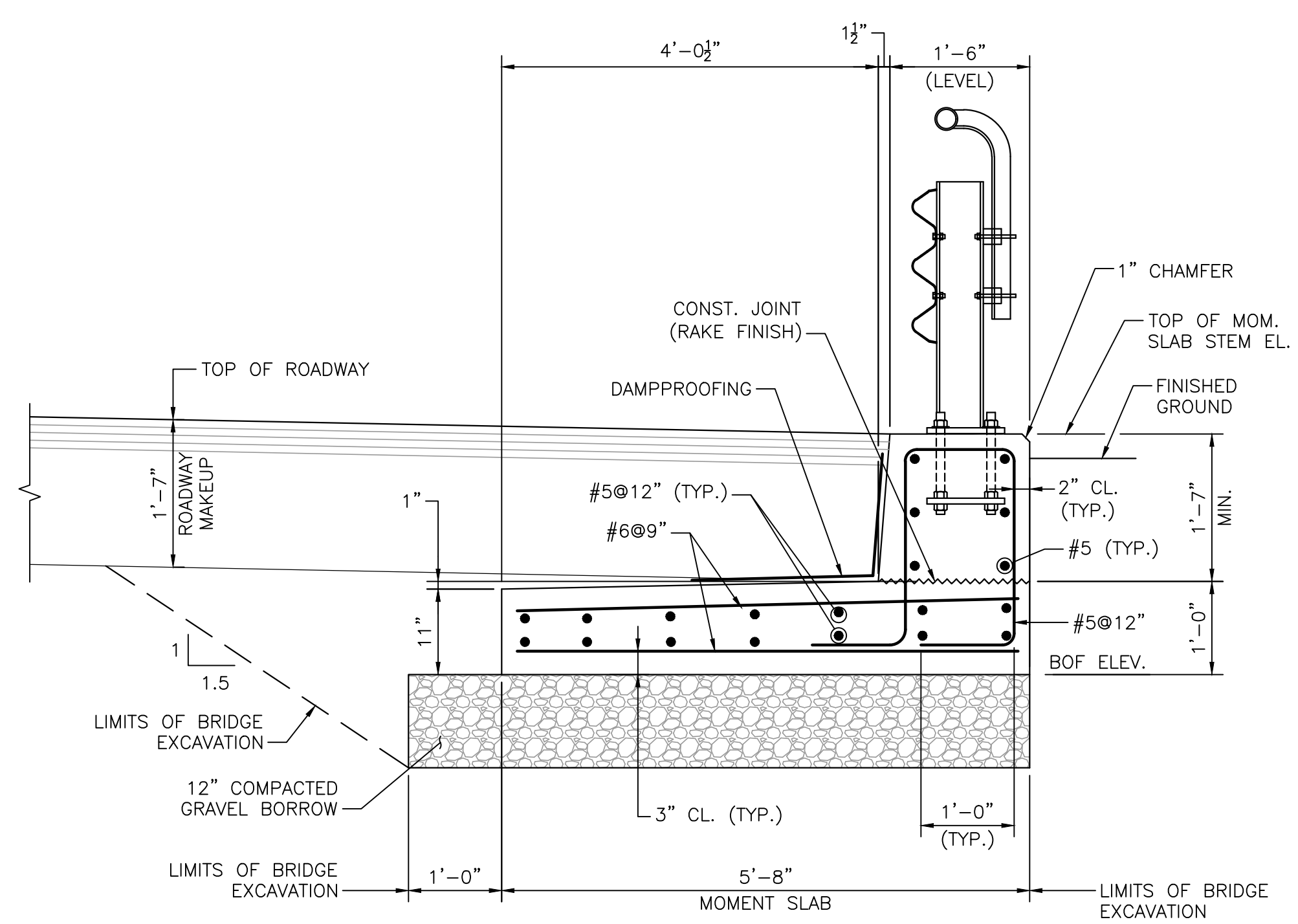
NORTH BRIDGE ELEVATION, LOOKING SOUTH
SCALE: 3/8" = 1'-0"



APPROACH SECTION AT MOMENT SLAB
NOT TO SCALE



[PHASE 1 SHOWN, PHASE 2 MIRRORED]
TRANSVERSE BRIDGE SECTION
SCALE: 3/8" = 1'-0"



NOTE:
ALL CONCRETE SHALL BE 4000 PSI, 1 1/2 IN, 565 CEMENT CONCRETE.

MOMENT SLAB SECTION
SCALE: 3/4" = 1'-0"

TOP OF MOMENT SLAB STEM ELEVATION		
LOCATION	STATION	ELEVATION
NORTHWEST	0+79.3	233.94
	0+89.8	234.09
NORTHEAST	1+05.6	234.34
	1+15.9	234.62
SOUTHWEST	0+80.2	233.95
	0+89.8	234.09
SOUTHEAST	1+05.6	234.34
	1+15.2	234.60

4/5/2022 3:35 PM \\BETA\IN\BDR01\UXBRIDGE\646 - UXBRIDGE - SMALL BRIDGE CONTRACT\DRAWING FILES\PLANSET\7545 - STRUCTURAL\DETAILS.DWG (BETA STE BW.SBT)

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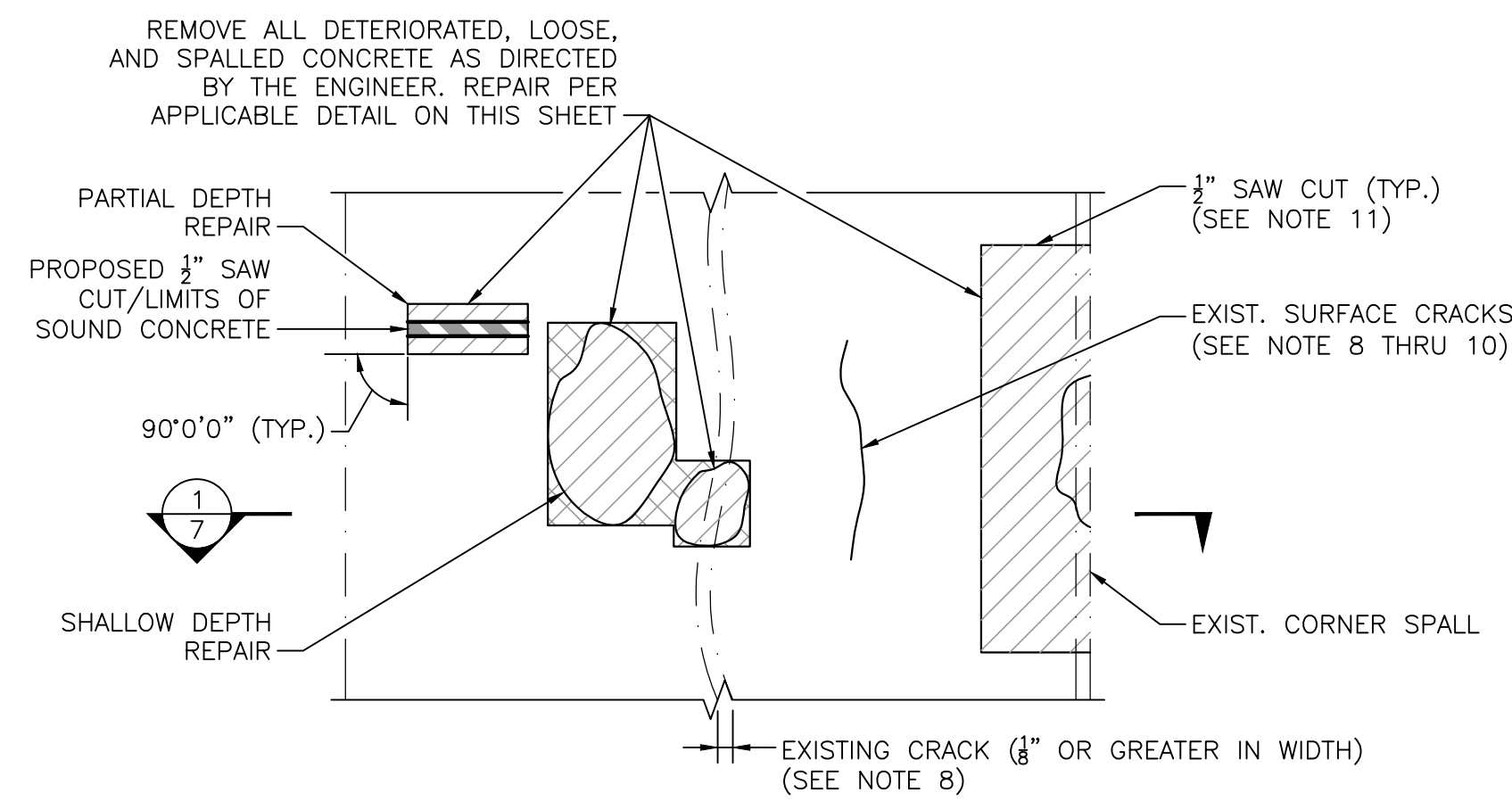
SUBCONSULTANT

SCALE
AS SHOWN

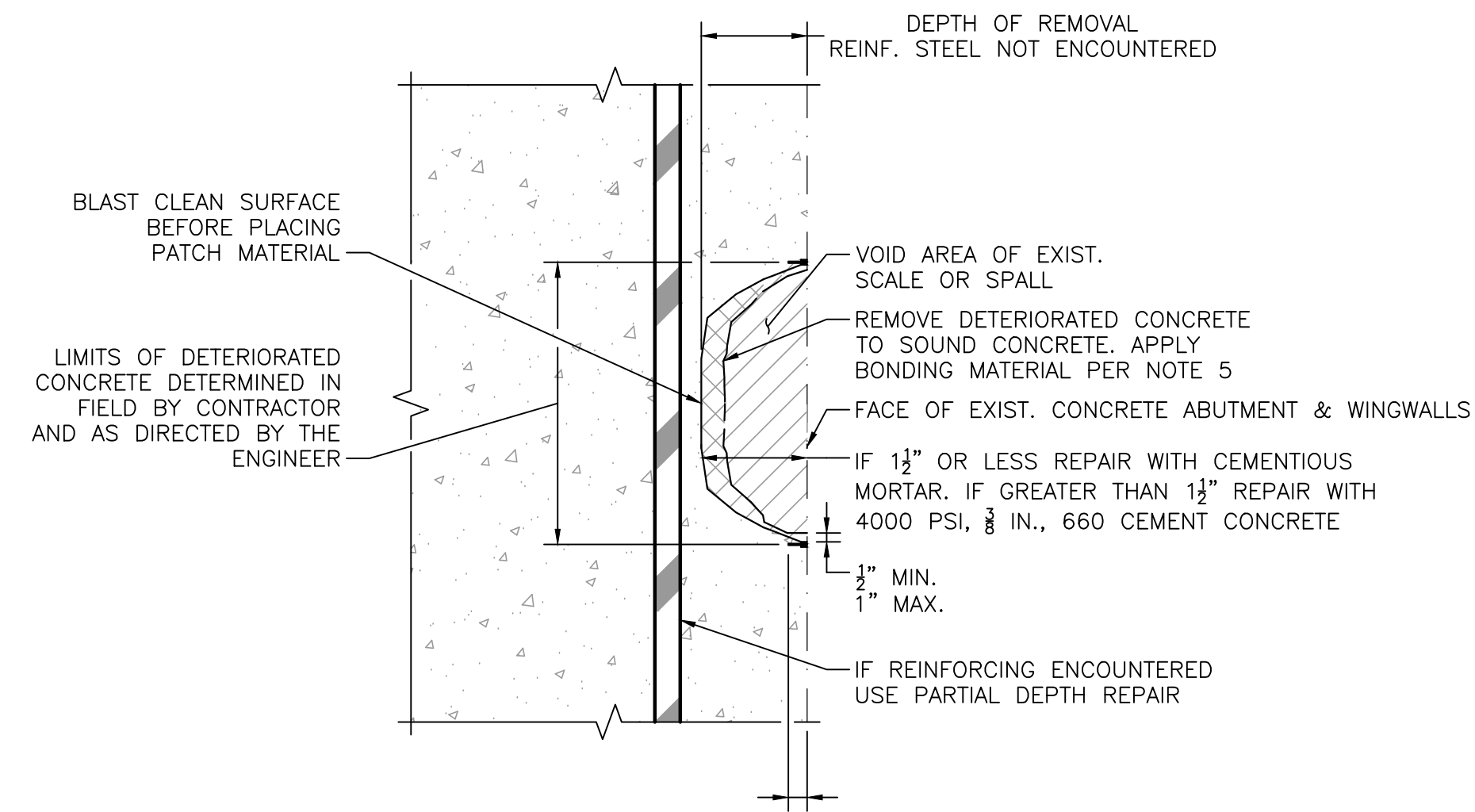
TITLE
Ironstone Road Bridge Improvements
Uxbridge, Massachusetts
STRUCTURAL DETAILS

BETA JOB NO. 7545
ISSUE DATE
SHEET NO. 6
BRIDGE NO. 0-02-069

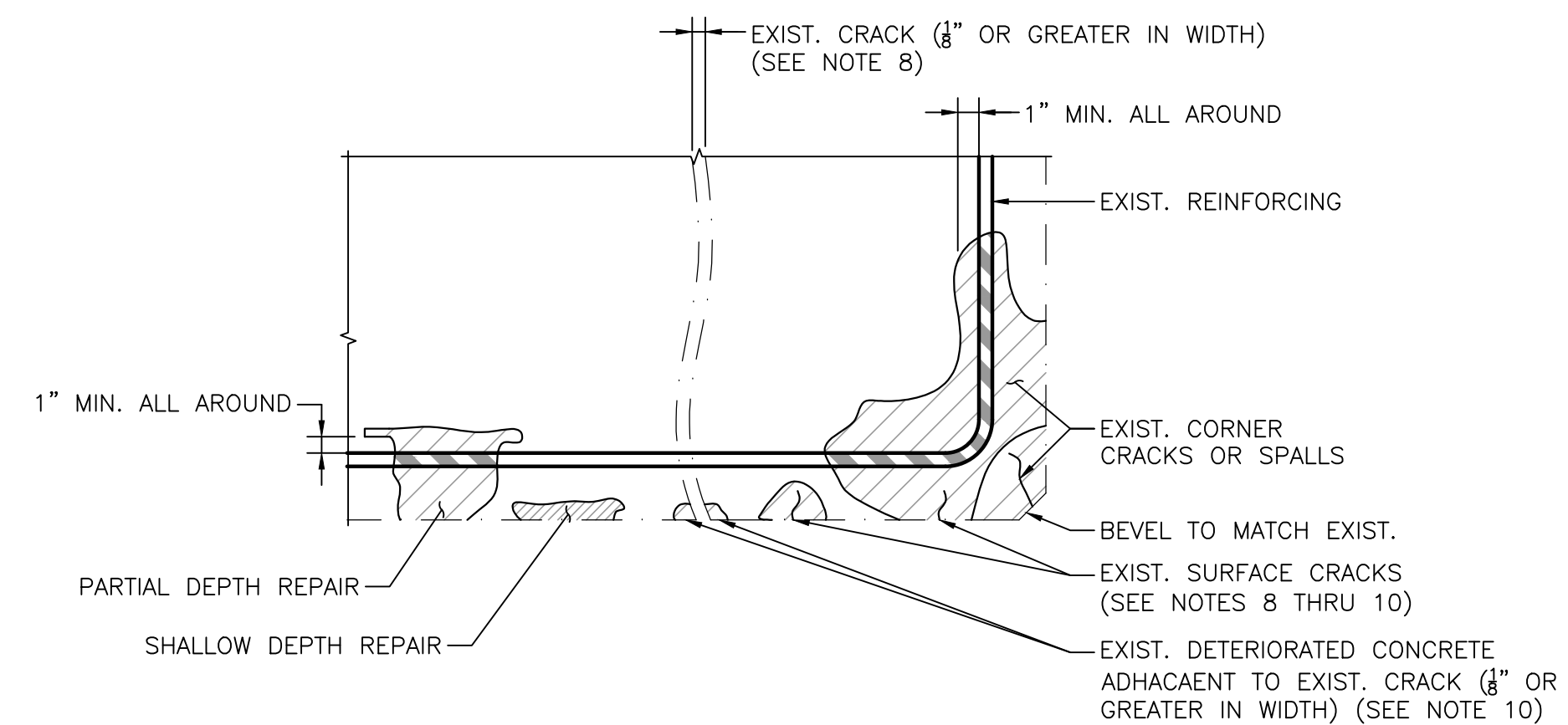
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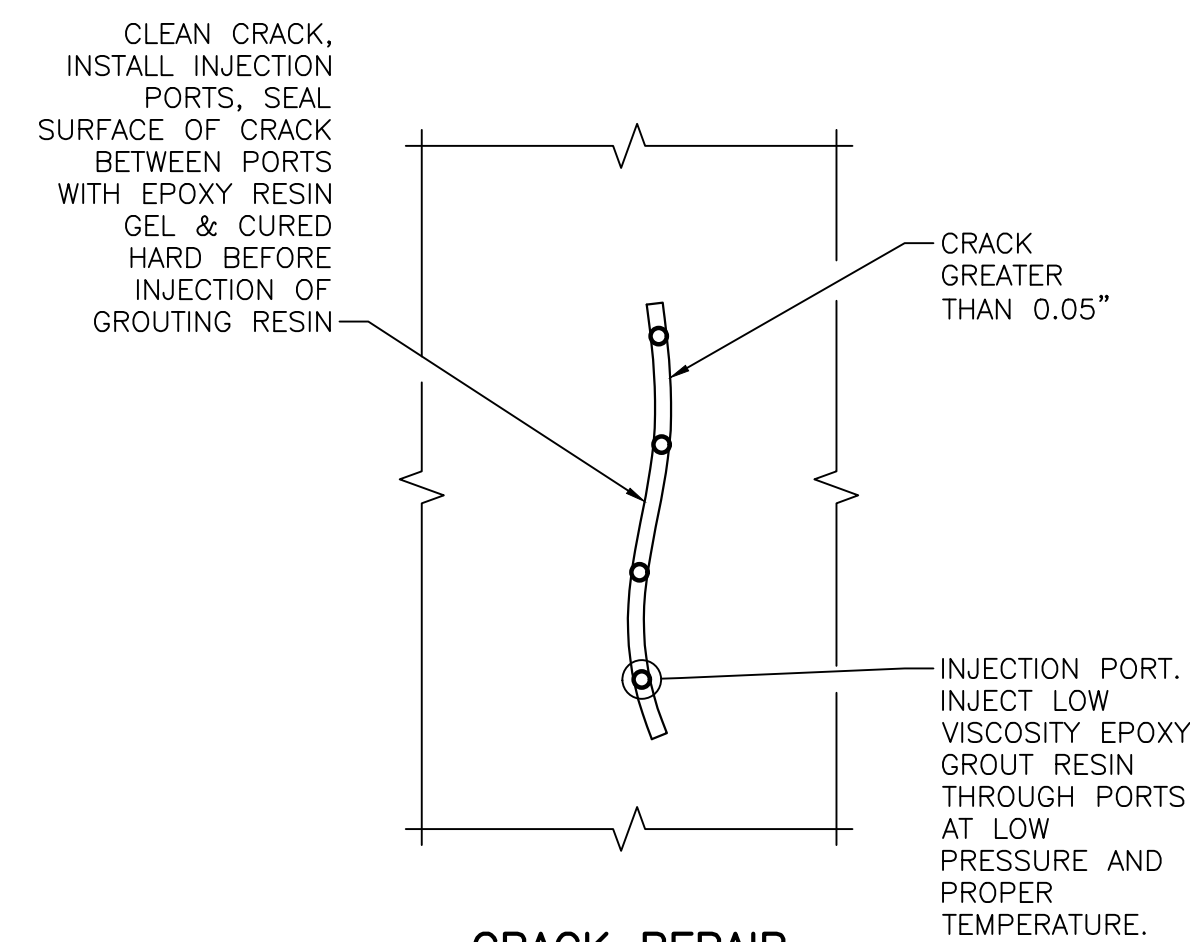
GENERAL ELEVATION
NOT TO SCALE



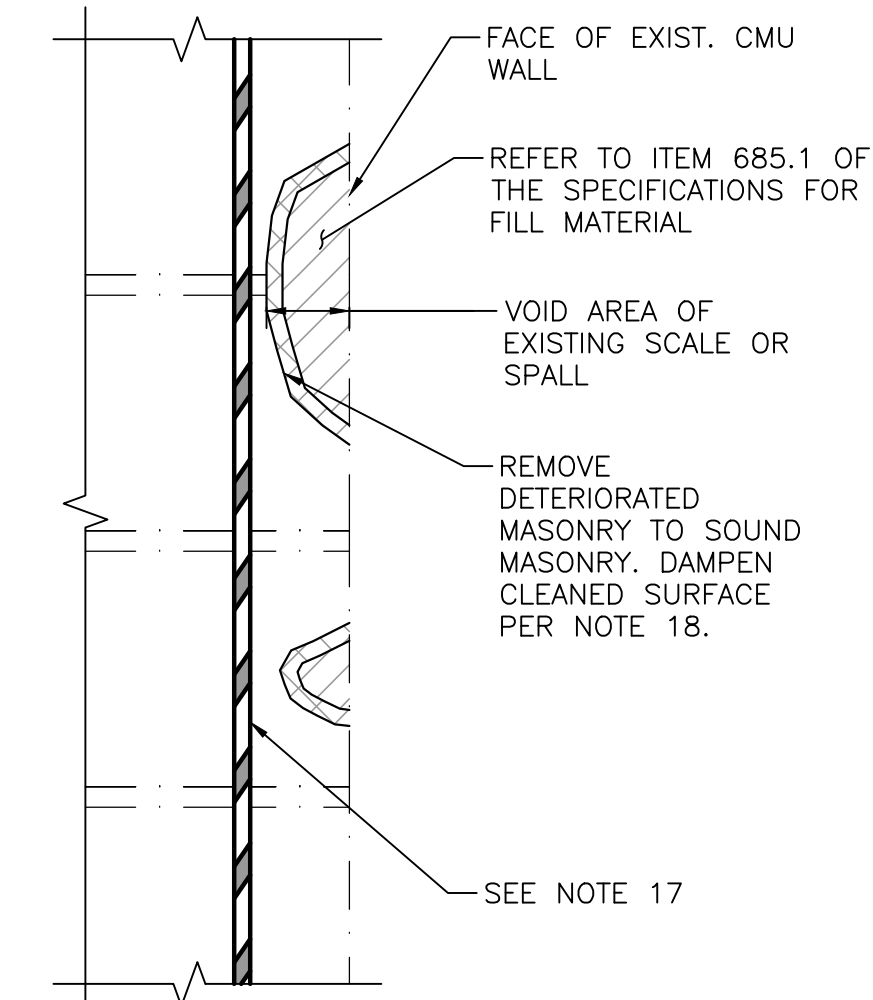
SHALLOW DEPTH REPAIR DETAIL
NOT TO SCALE



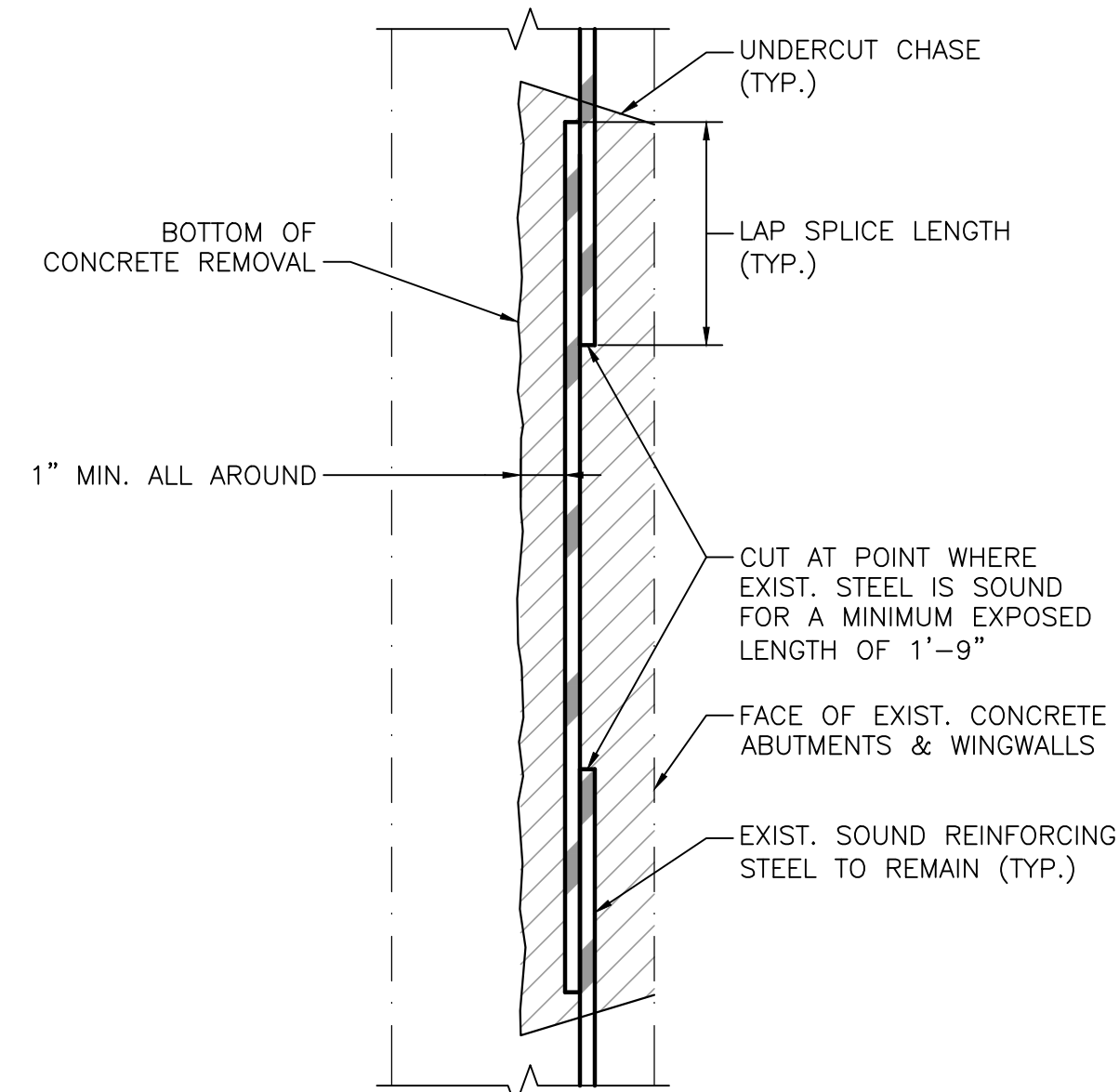
SECTION
NOT TO SCALE



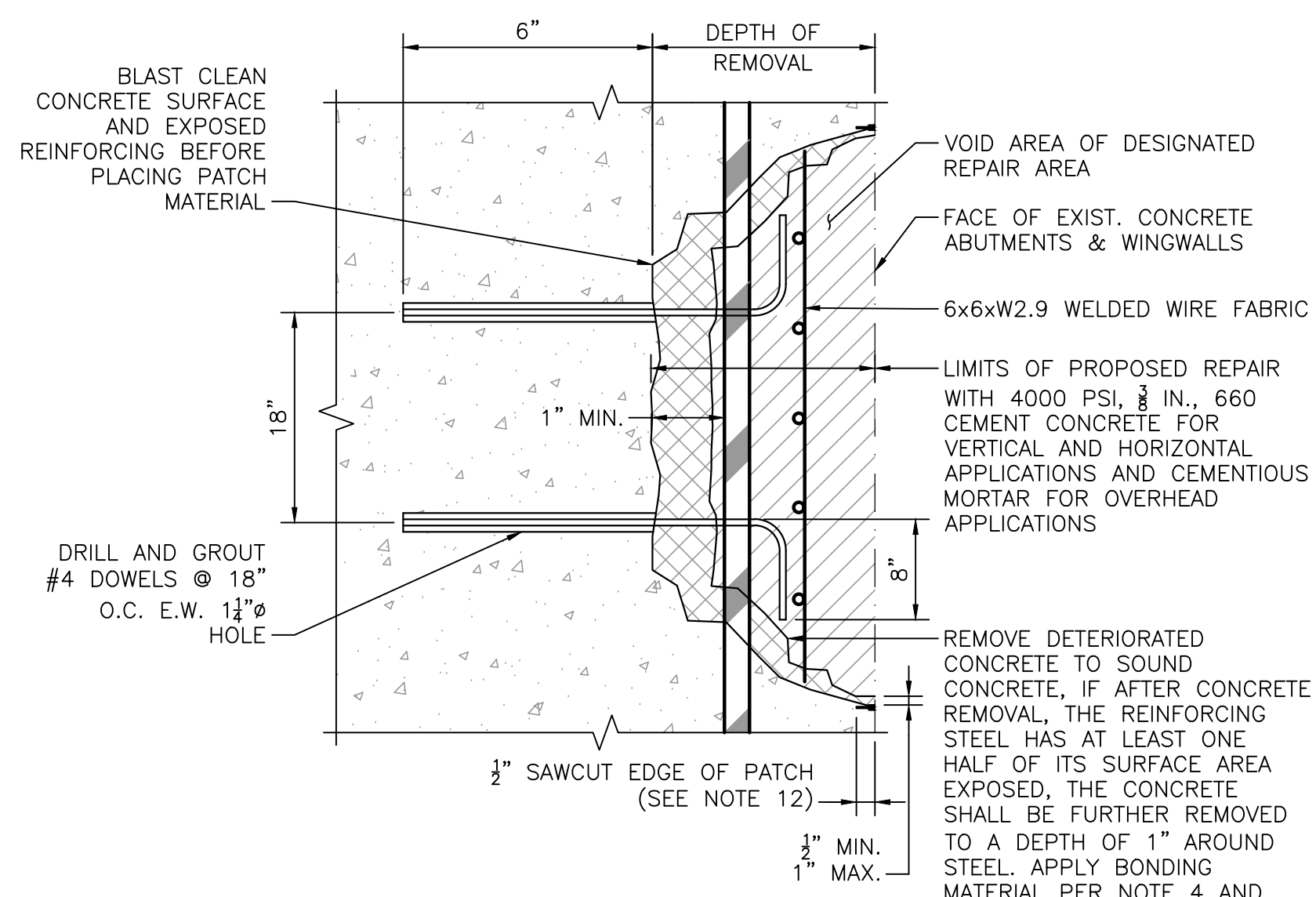
CRACK REPAIR
NOT TO SCALE



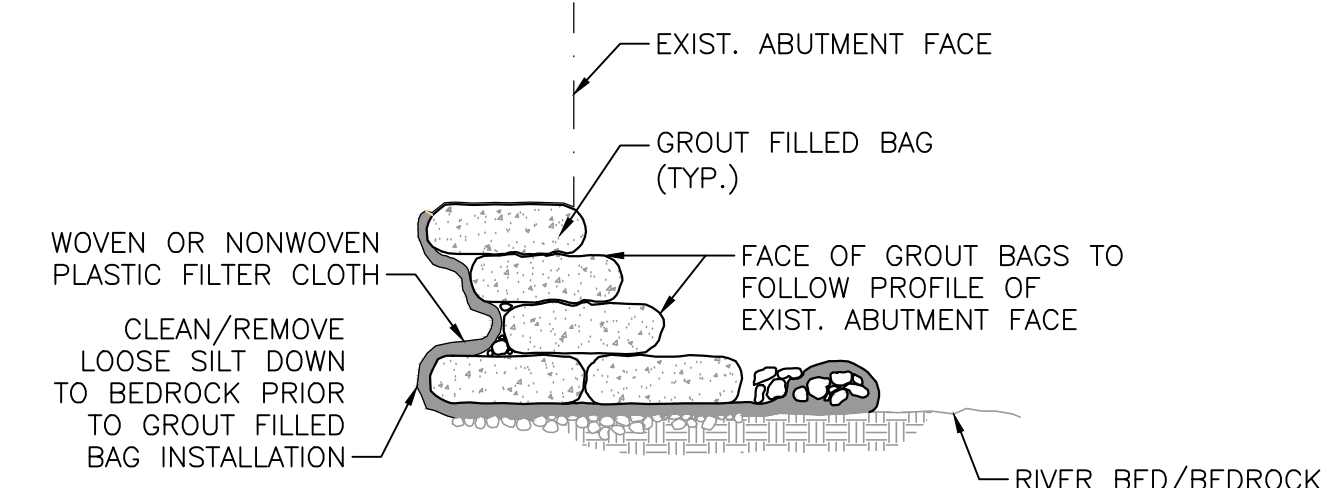
TYPICAL CMU WALL REPAIR
NOT TO SCALE



REINFORCING REPLACEMENT DETAIL
NOT TO SCALE



PARTIAL DEPTH REPAIR DETAIL
NOT TO SCALE



GROUT FILLED BAG REVETMENT DETAIL
NOT TO SCALE

LEGEND:

- DETERIORATED CONCRETE TO BE REMOVED.
- REINFORCING STEEL.
- ADDITIONAL CONCRETE TO BE REMOVED.

CONCRETE REPAIR NOTES:

1. THE ACTUAL LOCATIONS AND EXTENT OF VARIOUS TYPES OF CONCRETE REPAIR WILL BE DETERMINED IN THE FIELD. THE CONTRACTOR SHALL REPAIR ALL AREAS DETERMINED NECESSARY AS DIRECTED BY THE ENGINEER AFTER THE CONTRACTOR HAS SOUNDED AND MARKED OUT ALL REPAIR AREAS.
2. AREAS REQUIRING REPAIRS THAT ARE GREATER THAN 1 1/2" DEEP SHALL BE REPAIRED USING 4000 PSI, 3/8 IN., 660 CEMENT CONCRETE. AREAS LESS THAN 1 1/2" DEEP SHALL BE REPAIRED USING CEMENTITIOUS MORTAR FOR PATCHING.
3. IF DURING REMOVAL OF DETERIORATED CONCRETE, THE CONTRACTOR DAMAGES EXISTING REINFORCEMENT TO THE EXTENT REQUIRING REPLACEMENT, ANY ADDITIONAL CONCRETE REMOVAL, PATCHING MATERIAL, CLEANING EXISTING REINFORCING STEEL, AND FURNISHING AND INSTALLING REPLACEMENT REINFORCING STEEL SHALL BE AT THE CONTRACTOR'S EXPENSE, AND INSTALLED ACCORDING TO REINFORCING REPLACEMENT DETAIL ON THIS SHEET.
4. REINFORCEMENT, INCLUDING WELDED WIRE FABRIC, USED TO REPLACE EXISTING DETERIORATED REINFORCING STEEL (SECTION LOSS OF 15% OR MORE OF THE ORIGINAL CROSS SECTION, AS DETERMINED BY THE ENGINEER) SHALL BE EPOXY COATED. COST OF REPLACEMENT SHALL BE INCLUDED UNDER ITEM 910.1.
5. IMMEDIATELY PRIOR TO PLACING NEW CONCRETE OR MORTAR AGAINST EXISTING CONCRETE, CLEAN EXISTING SURFACES BY ABRASIVE BLASTING OR HIGH PRESSURE WATER BLASTING WITH WATER CONTAINING NO DETERGENTS OR BOND INHIBITING CHEMICALS AND APPLY APPROVED BONDING COMPOUND IMMEDIATELY PRIOR TO PLACING CONCRETE.
6. ALL EXISTING SURFACES THAT WILL HAVE NEW CONCRETE CAST AGAINST IT MUST BE ROUGHENED TO A MINIMUM AMPLITUDE OF 1/4 INCH.
7. CONCRETE REPAIR WORK INCLUDES REMOVING ALL DETERIORATED, LOOSE, SPALLED, POPCORNERED AND MAP CRACKED CONCRETE. CONCRETE WHICH HAS SPALLED OR OTHERWISE DETERIORATED ADJACENT TO SURFACE CRACK SHALL BE REPAIRED.
8. CRACKS THAT ARE .05" OR GREATER IN WIDTH SHALL BE REPAIRED BY EPOXY INJECTION CRACK REPAIR.
9. CRACKS THAT ARE LESS THAN .05" IN WIDTH SHALL NOT BE REPAIRED UNLESS DIRECTED BY THE ENGINEER.
10. WHERE PATCHING AND EPOXY INJECTION WORK ARE ADJACENT, EPOXY INJECTION SHALL BE PERFORMED BEFORE PATCHING.
11. ALL DETERIORATED AREAS SHALL BE DELINEATED BY A 1/2" SAWCUT. THE COST OF SAWCUTTING SHALL BE INCLUDED UNDER ITEM 127.12.
12. ALL EXPOSED STEEL SHALL BE THOROUGHLY BLAST CLEANED TO A WHITE METAL FINISH AND COATED WITH EPOXY IN ACCORDANCE WITH AASHTO M284 (ASTM D3963). BLAST CLEANING AND EPOXY SHALL BE INCLUDED IN THE RESPECTIVE CONCRETE REPAIR ITEM.
13. ALL SURFACES SHALL BE RUBBED TO PRODUCE A SMOOTH FINISH. NO ADDITIONAL MATERIAL SHALL BE ADDED TO CONCRETE.

MASONRY REPAIR NOTES:

14. ANY OBJECTIONABLE CRACK SHOULD BE ANALYZED TO DETERMINE THE CAUSE AND ANY PREVIOUS CORRECTIVE MEASURES TAKEN TO PREVENT OR ACCOMMODATE THE MOVEMENT BEFORE ADDITIONAL REPAIRS ARE MADE.
15. WHERE CRACKING IS CONFINED PRIMARILY TO MORTAR JOINTS IT CAN BE READILY REPAIRED BY CONVENTIONAL TUCKPOINTING METHODS.
16. REMOVE ALL SPALLED AND UNSOUND MASONRY FROM AREA TO BE REPAIRED. IF RUSTY REINFORCING STEEL IS PRESENT IT MUST BE ABRASIVE BLASTED TO REMOVE RUST.
17. IF REINFORCING STEEL IS ENCOUNTERED, REMOVE ENOUGH MATERIAL TO COMPLETELY EXPOSE REINFORCING STEEL. ALL EXPOSED STEEL SHALL BE THOROUGHLY BLAST CLEANED TO A WHITE METAL FINISH AND COATED WITH EPOXY IN ACCORDANCE WITH ASTM D3963. BLAST CLEANING AND EPOXY SHALL BE INCLUDED IN THE RESPECTIVE MASONRY REPAIR ITEM.
18. CLEAN SURFACE TO BE FREE OF ALL MATERIALS INCLUDING DUST, OIL, DIRT AND GREASE. DAMPEN WITH CLEAN WATER BEFORE PATCHING AND REMOVE STANDING WATER. REPAIR MORTAR SHALL BE TROWEL APPLIED TO DAMPENED SURFACE. AFTER INITIAL SET, THE MATERIAL SHALL BE TRIMMED AND SHAPED TO MATCH THE CONTOURS OF EXISTING PATCH AREA.
19. COST OF DRILLING AND GROUTING DOWELS SHALL BE CONSIDERED INCIDENTAL TO MASONRY REHABILITATION.
20. EXISTING MASONRY NEAR REPAIR LOCATIONS SHALL BE CLEANED WITH A HYDROCARBON SOLVENT TO REMOVE OIL AND GREASE. THE SURFACE SHALL THEN BE CLEANED WITH A TRISODIUM PHOSPHATE SOLUTION PRIOR TO APPLYING PAINT.

4/5/2022 3:35 PM \\BETA\IN\BDR01\UXBRIDGE\SMALL BRIDGE CONTRACT\DRAWING FILES\PLANS\SET7\45_S\CONCRETE\REPAIR\DETAILS.DWG (BETA STB.BW.STB)

NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

DRAWN BY:	BN
DESIGNED BY:	TW
CHECKED BY:	TW

REGISTERED PROFESSIONAL
PREPARED BY



SUBCONSULTANT

SCALE
AS SHOWN

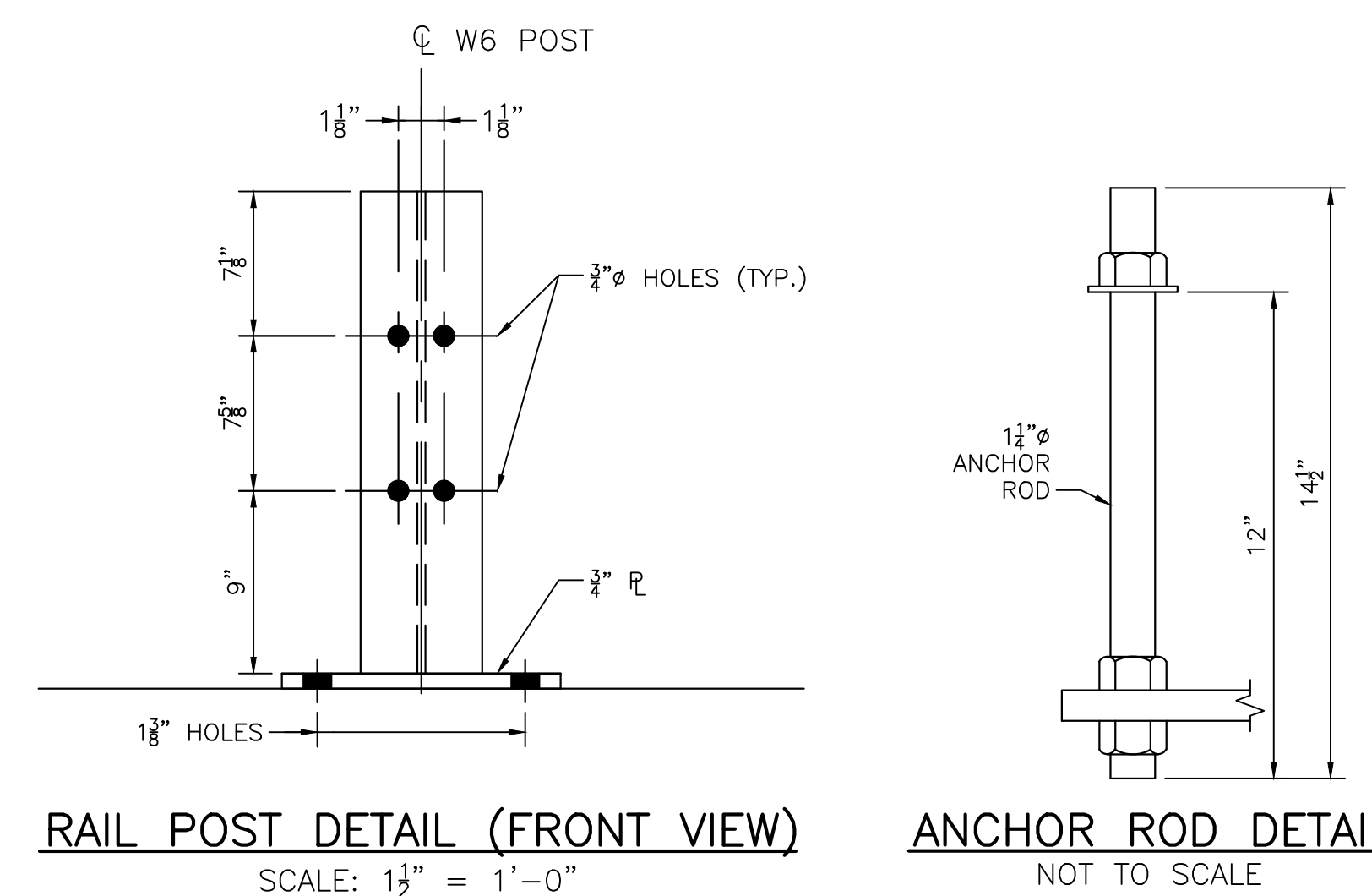
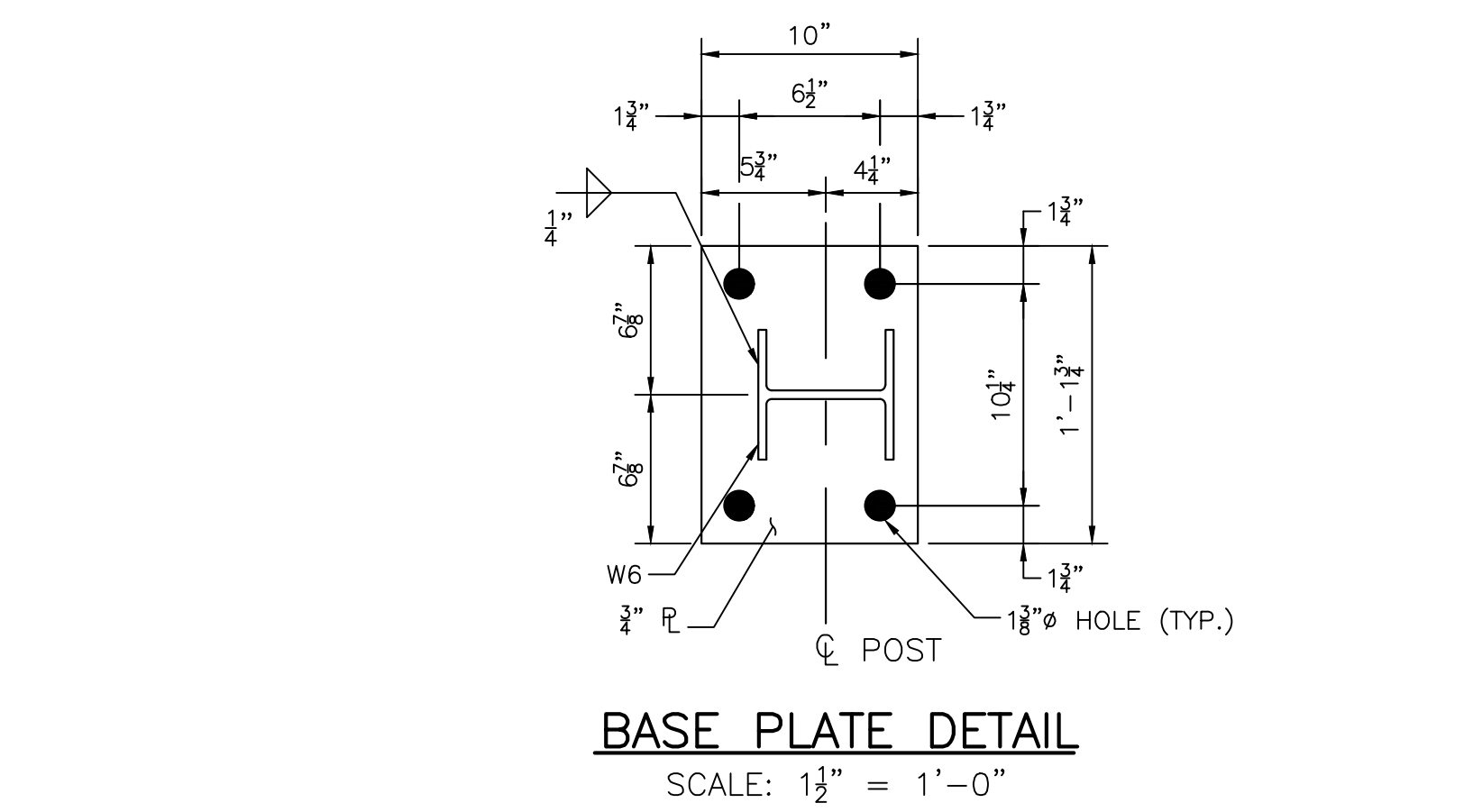
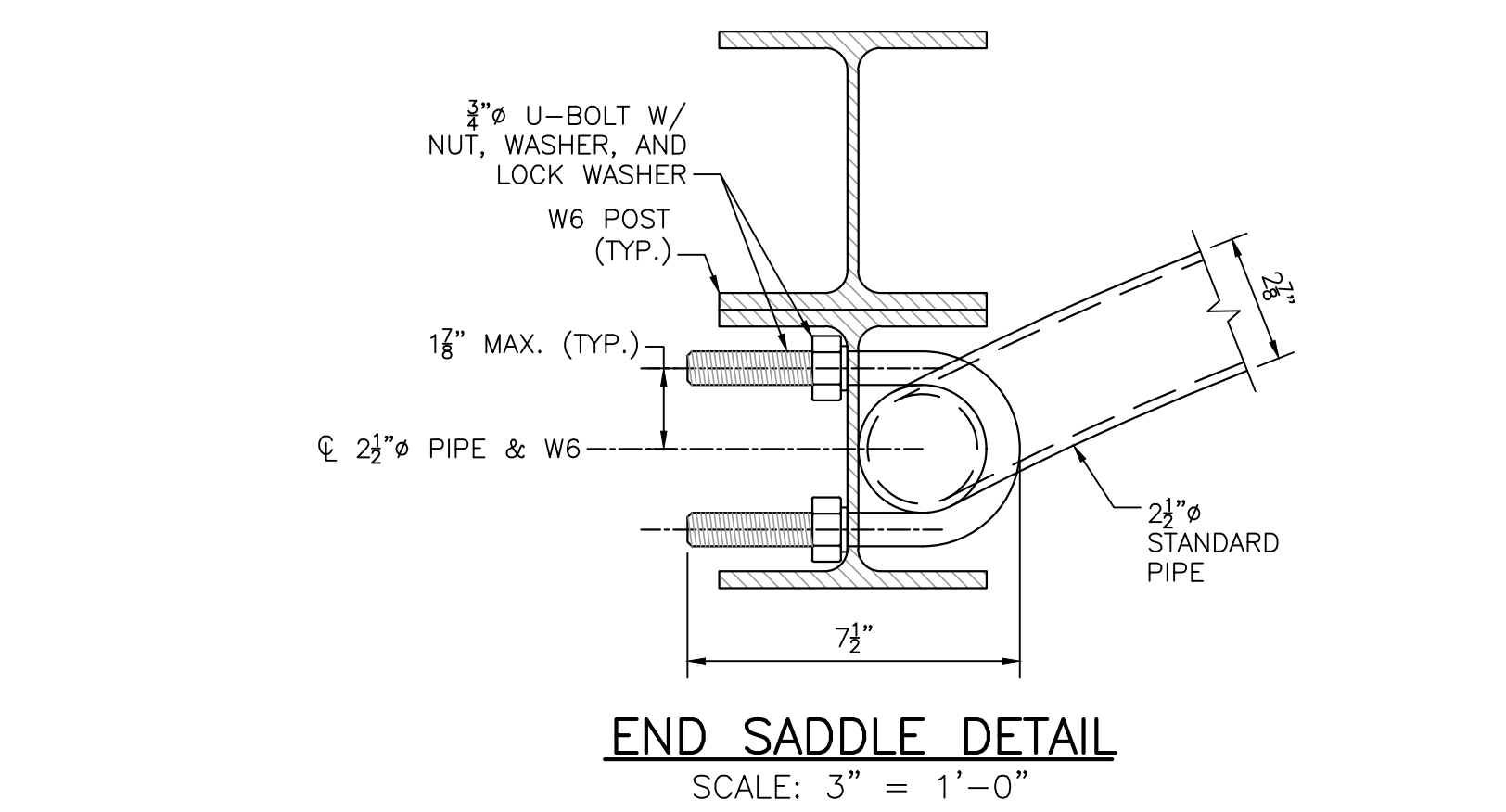
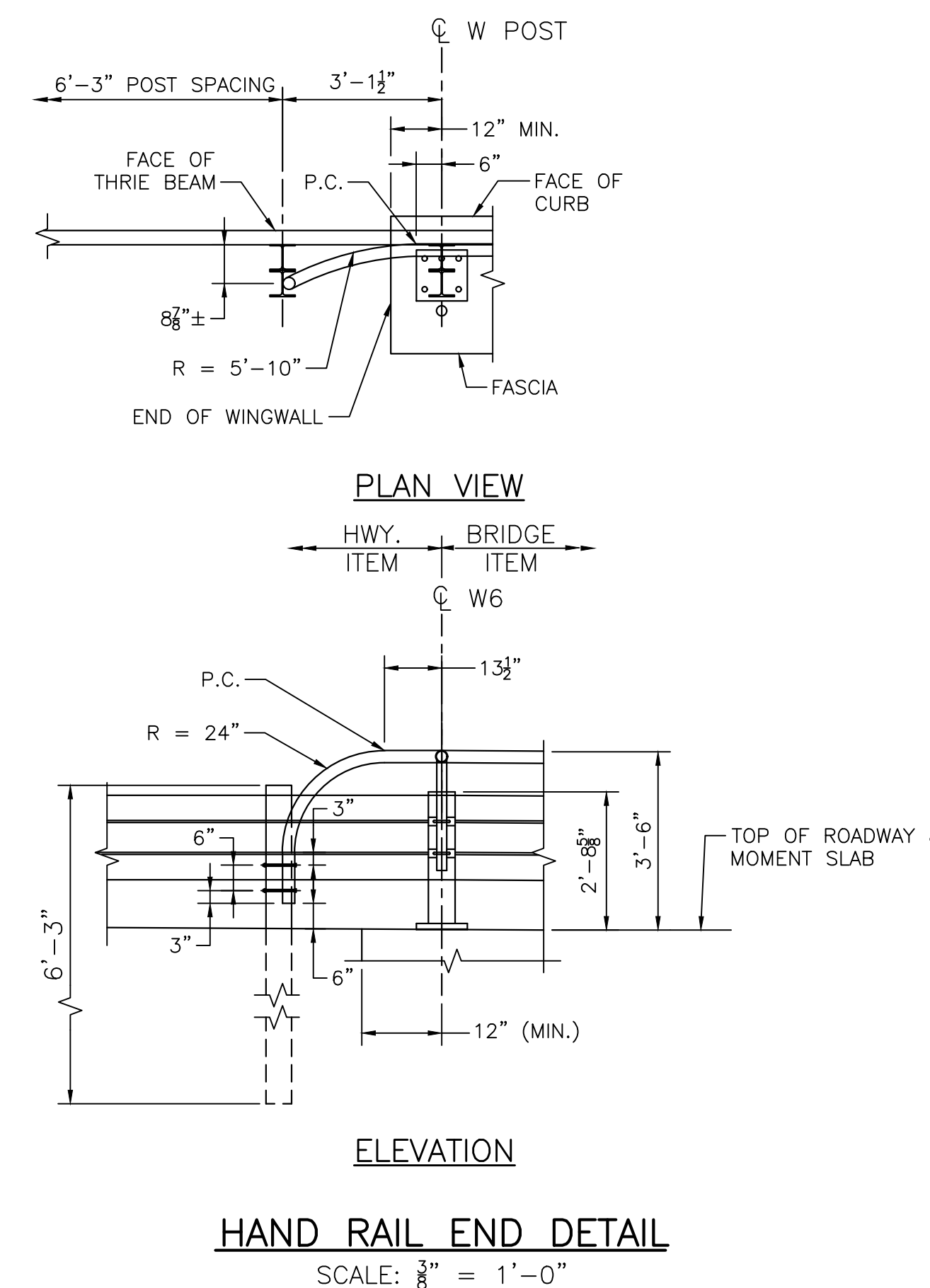
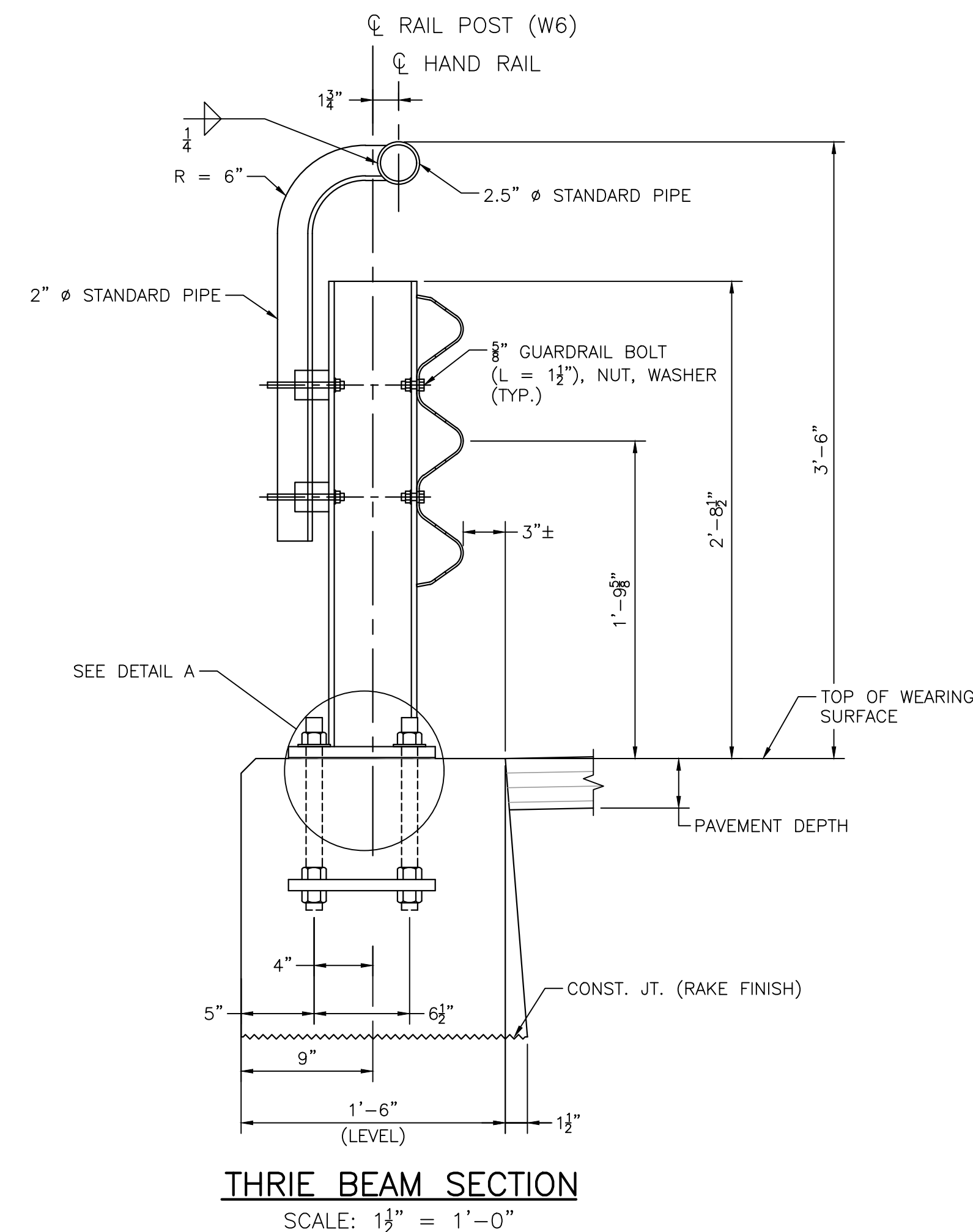
TITLE
Ironstone Road Bridge Improvements
Uxbridge, Massachusetts
CONCRETE & MASONRY REPAIR DETAILS

BETA JOB NO. 7545
ISSUE DATE
SHEET NO. 7

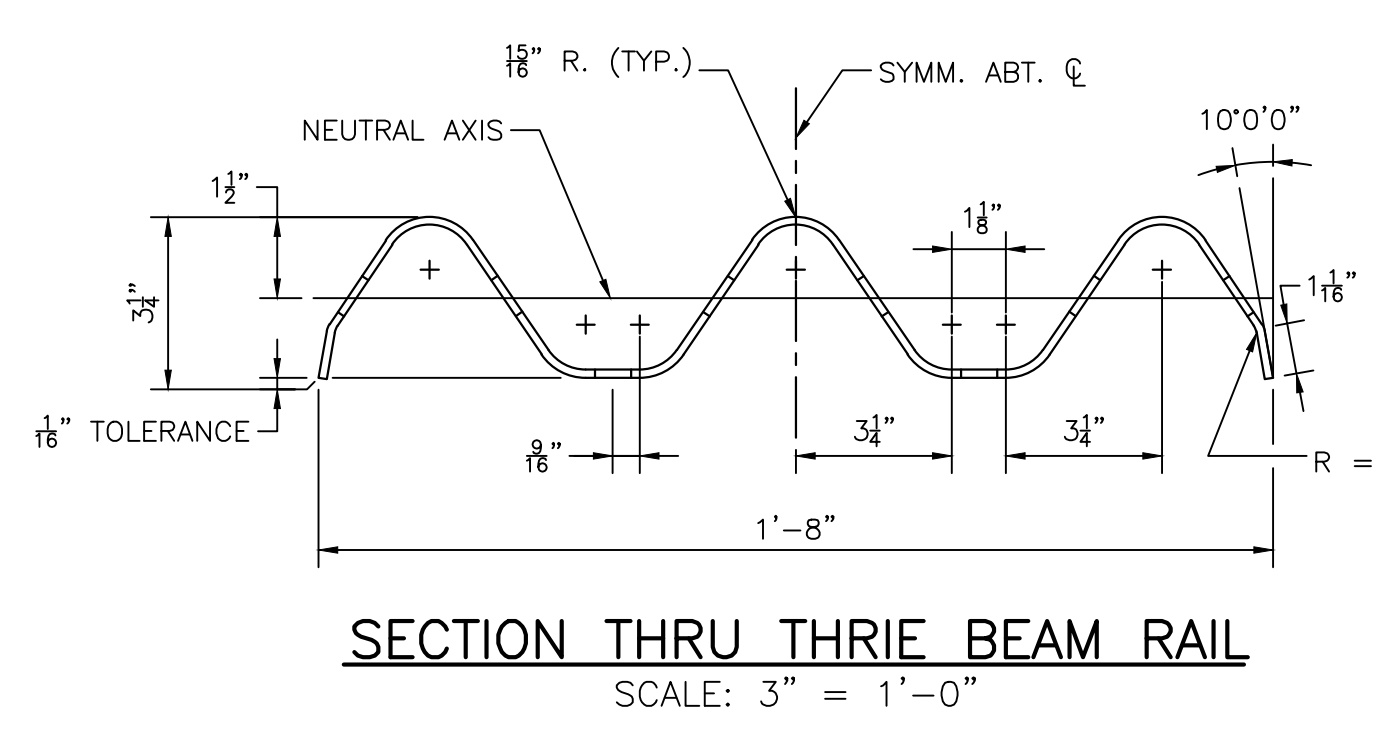
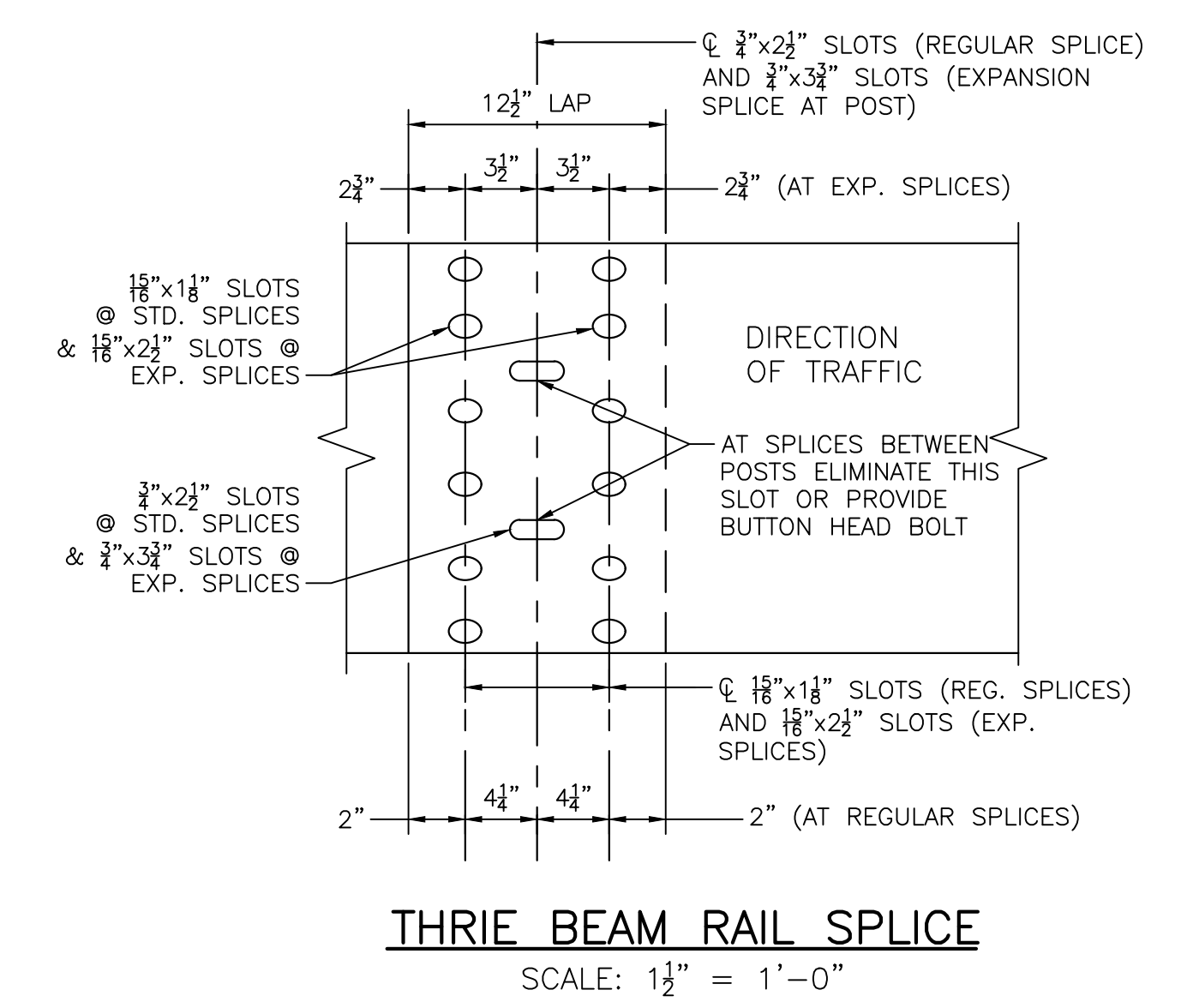
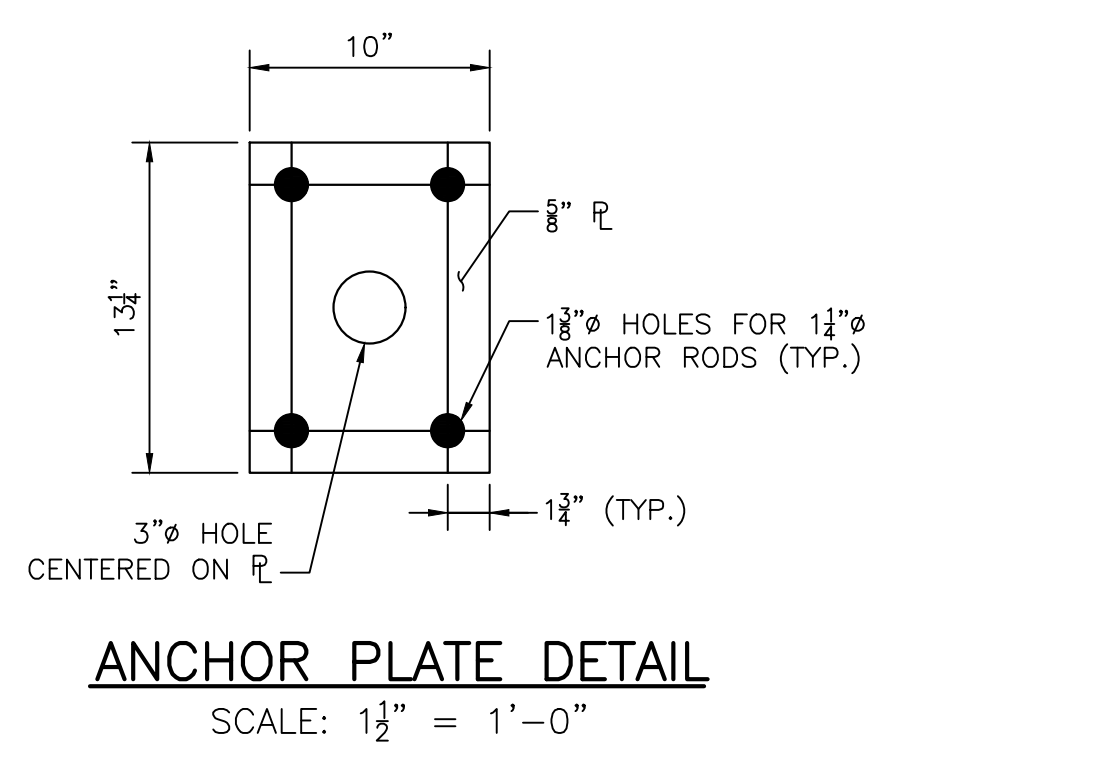
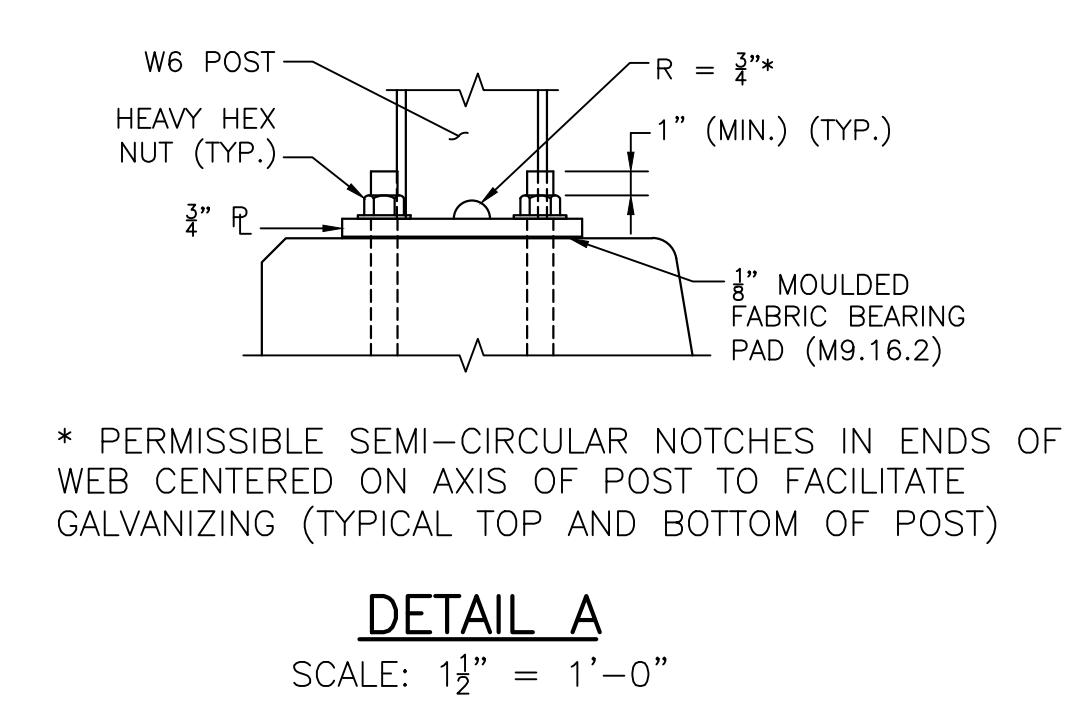
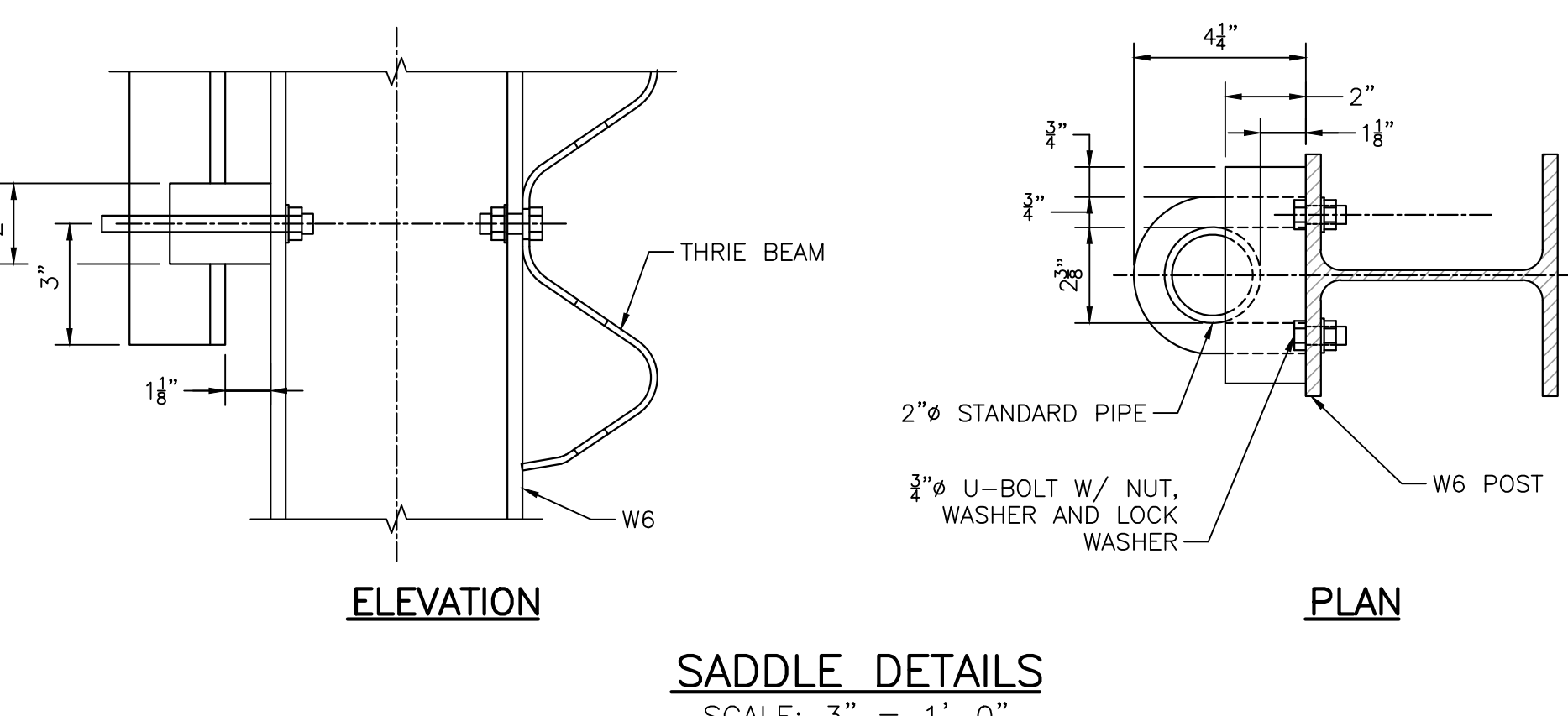
BRIDGE NO. 0-02-070


UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

4/5/2022 3:35 PM \\BETA\IN\BDR01\UXBRIDGE\SMALL BRIDGE CONTRACT\DRAWING FILES\PLANSET\7545_S\THRIEBEAMDETAILS(DP2) - IRONSTONE.DWG (BETA STB BWS) (STB)

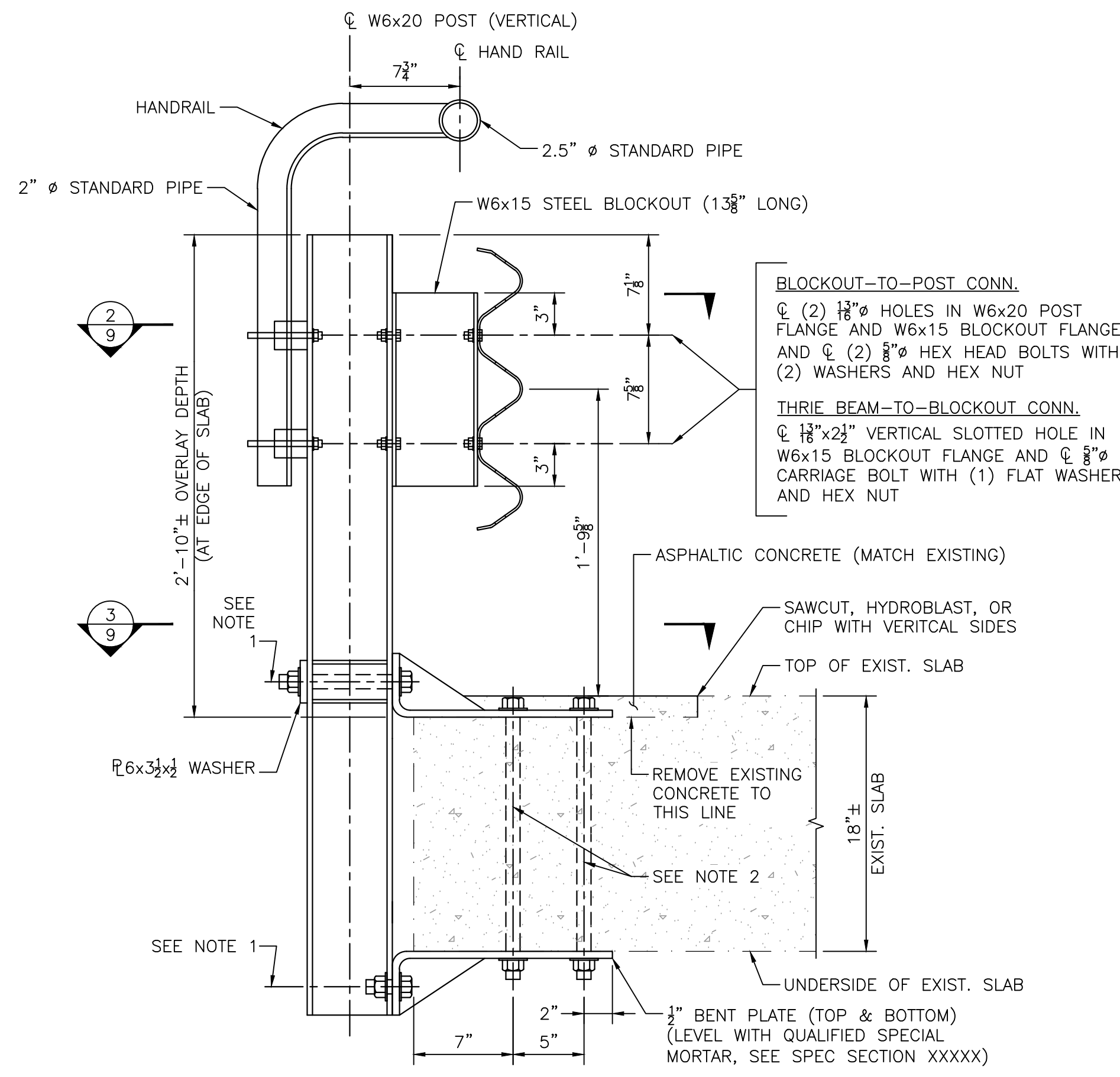


- NOTES:**
- ALL STEEL CONNECTING BOLTS AND FASTENERS FOR POSTS AND RAILING SHALL CONFORM TO ASTM A307 AND SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M232. ALL ANCHOR RODS SHALL CONFORM TO F1554 GRADE 105 AND SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M232.
 - RAIL POSTS AND ANCHOR PLATES SHALL BE SEATED ON MOULDED FABRIC BEARING PADS MEETING M9.16.2 AND HAVING THE SAME DIMENSIONS AS THE PLATE. ADDITIONAL PADS OR HALF PADS MAY BE USED IN SHIMMING FOR ALIGNMENT. POST HEIGHTS SHOWN WILL INCREASE BY THE THICKNESS OF THE PAD.
 - RAIL POSTS SHALL BE SET PERPENDICULAR TO ROADWAY PROFILE GRADE AND VERTICALLY IN CROSS SECTION, EXCEPT THAT THE RAIL POSTS SHALL BE ALIGNED BY THE USE OF SHIMS SO THAT IN THE FINAL ADJUSTMENT NO PART SHALL DEVIATE MORE THAN ONE INCH FROM TRUE HORIZONTAL ALIGNMENT. THE SHIMS SHALL BE 3"x1 1/2" AND PLACED BETWEEN THE POST AND THE THRIE BEAM RAIL. THE THICKNESS OF THE SHIMS SHALL BE DETERMINED BY THE CONTRACTOR AND VERIFIED BY THE ENGINEER BEFORE ORDERING MATERIAL FOR THIS WORK.
 - MINIMUM LENGTH OF THE THRIE BEAM SECTIONS IS EQUAL TO ONE POST SPACE.
 - THRIE BEAM GUARD RAIL STEEL SHALL BE GALVANIZED AND CONFORM TO THE AASHTO M180, CLASS B, TYPE IV AND SHALL BE 10 GAGE THICK. USE OF 12 GAGE THICK THRIE BEAM IS EXPRESSLY FORBIDDEN.
 - POSTS, ANCHOR PLATES, BASE PLATES SHALL BE FABRICATED FROM STEEL CONFORMING TO AASHTO M270M GR. 250 STEEL AND SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M111.
 - SPECIAL DRILLING OF THE THRIE BEAM MAY BE REQUIRED AT THE SPLICES. (ALL DRILLING DETAILS ARE TO BE SHOWN ON THE SHOP DRAWINGS.)
 - HAND RAIL STEEL SHALL CONFORM TO ASTM A53 GR. B OR A501 AND SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M111.
 - PLACE A REFLECTORIZED WASHER IN THE UPPER VALLEY OF THRIE BEAM EVERY THIRD POST.
 - HAND RAIL SHALL BE SPLICED OVER JOINTS IN COPING.



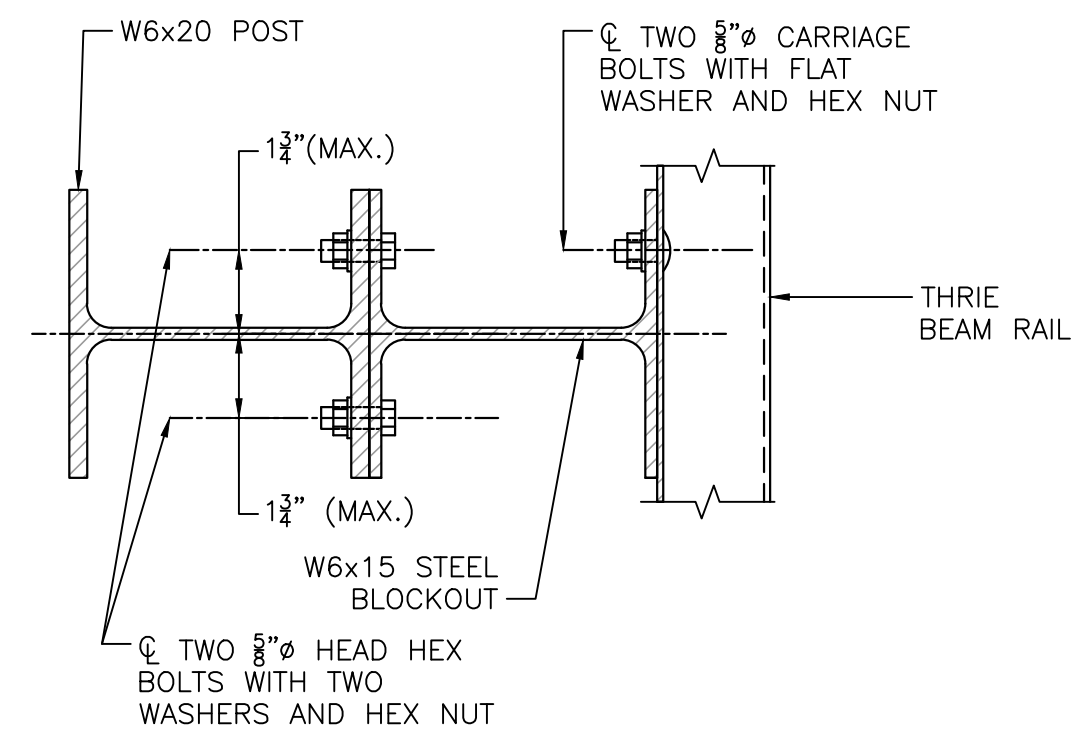
DRAWN BY: BN				REGISTERED PROFESSIONAL	PREPARED BY	SUBCONSULTANT	SCALE AS SHOWN	TITLE Ironstone Road Bridge Improvements Uxbridge, Massachusetts THRIE BEAM DETAILS (1 OF 2)	BETA JOB NO. 7545
DESIGNED BY: TW				 www.BETA-Inc.com					
CHECKED BY: TW									
NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS					
UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION									
BRIDGE NO. 0-02-069								SHEET NO. 8	

4/5/2022 3:35 PM \\BETA\IN\BDR01\UXBRIDGE\SMALL BRIDGE CONTRACT\DRAWING FILES\PLANSET\7545_S\THRIEBEAM\DETAILS\02-01-2022\BETA\STB\BN\STB

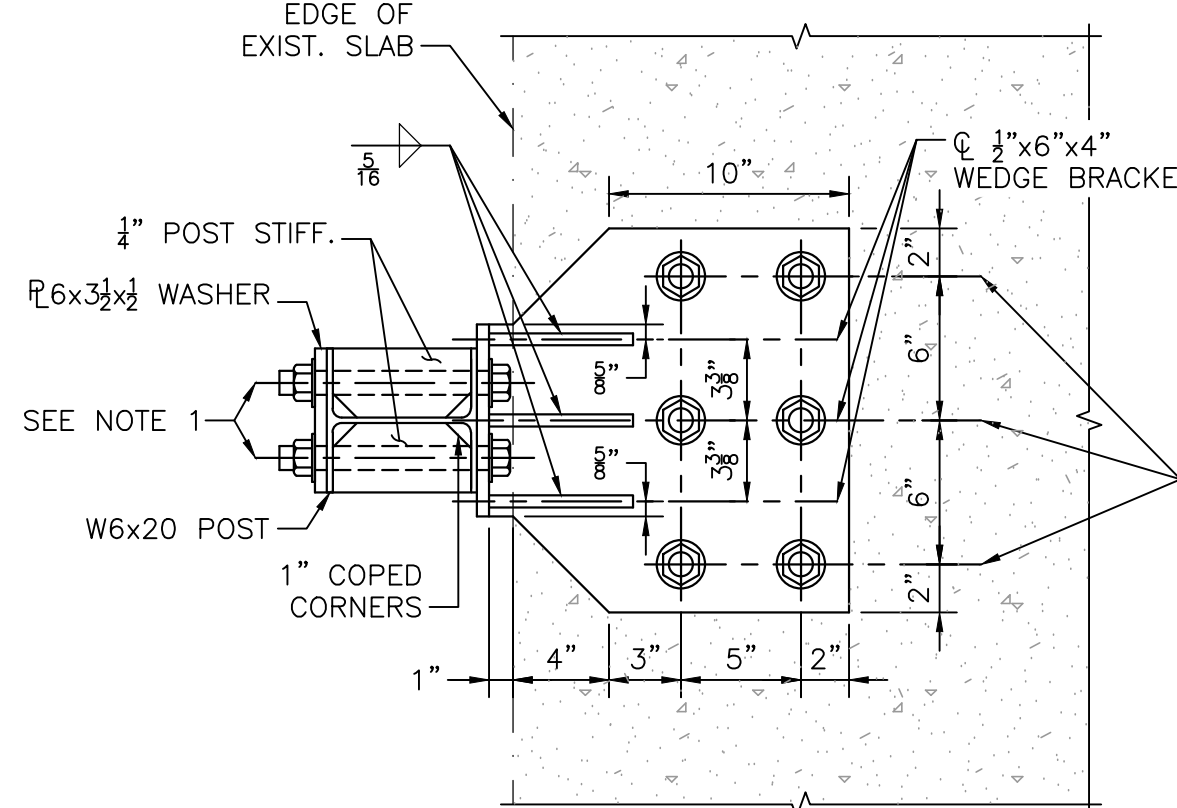


- NOTES:**
- POST-TO-BENT PLATE CONNECTION
 - (2) 1" ASTM F3125 GRADE A325 TYPE 1 BOLTS WITH HARDENED WASHERS AND HEX NUTS
 - (2) 1 1/8" x 1 1/2" VERTICAL SLOTTED HOLES IN BOTH UPPER POST FLANGES
 - (2) 1 1/8" HOLES IN WASHER PLATE, INSIDE LOWER POST FLANGE AND BOTH BENT PLATES
 - BENT PLATE-TO-DECK CONNECTION
 - (3) 1/4" DRILLED HOLES IN SLAB
 - (3) 1" ASTM 307 BOLTS WITH PLATE WASHER, HARDENED LOCKING WASHERS AND HEX NUTS
 - (3) 1/4" IN BOTH BENT PLATES

SECTION AT RAIL POST
SCALE: 1 1/2" = 1'-0"



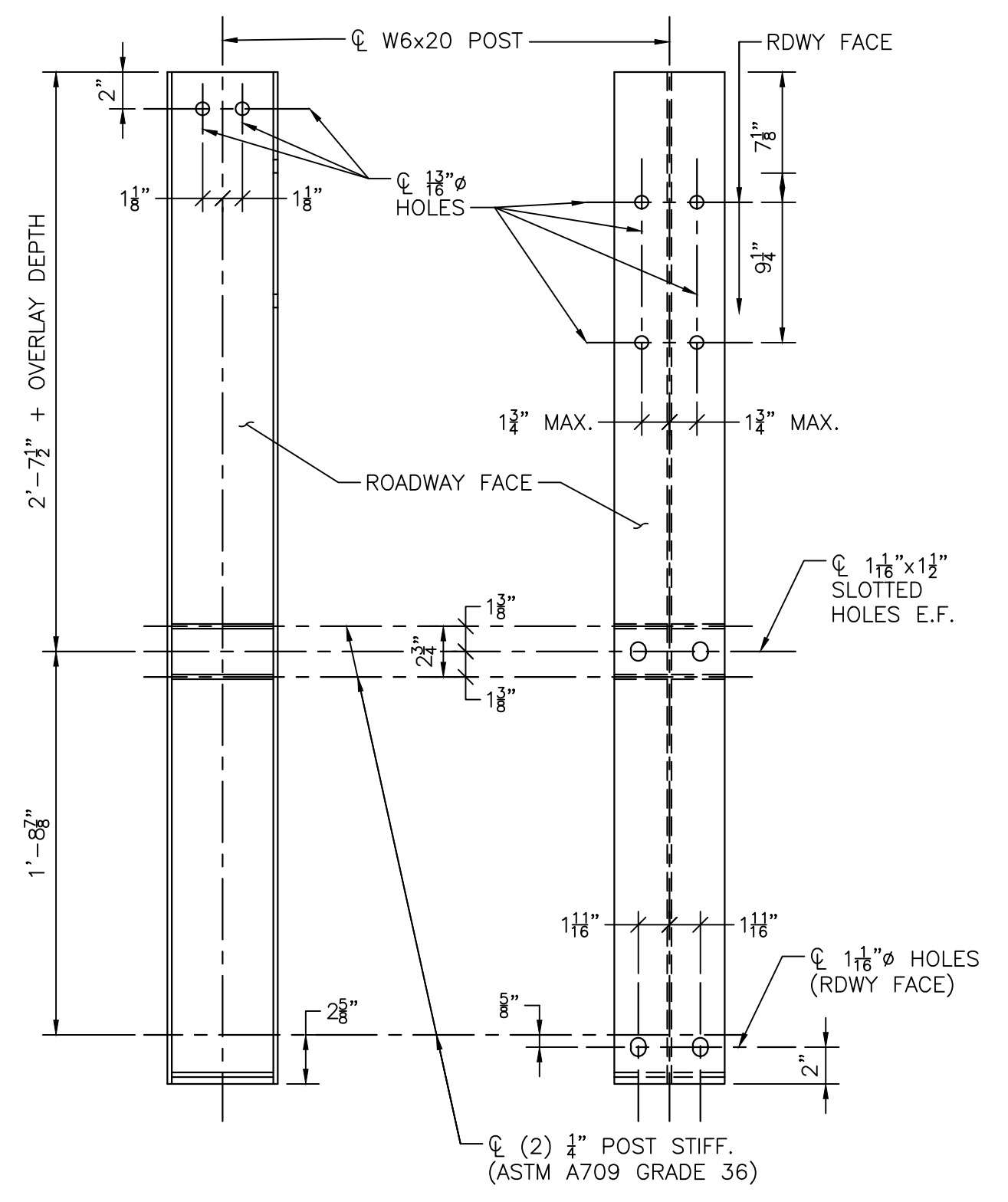
SECTION 2
SCALE: 3" = 1'-0"



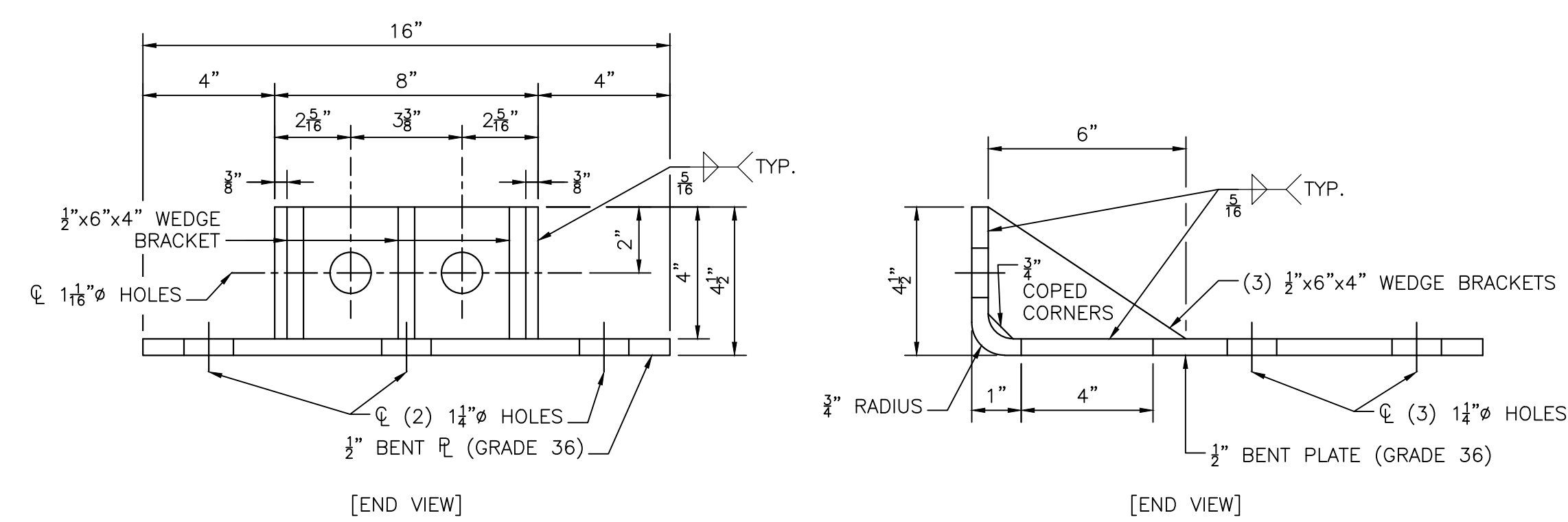
- NOTES:**
- POST-TO-BENT PLATE CONNECTION
 - (2) 1" ASTM F3125 GRADE A325 TYPE 1 BOLTS WITH HARDENED WASHERS AND HEX NUTS
 - (2) 1 1/8" x 1 1/2" VERTICAL SLOTTED HOLE IN BOTH UPPER POST FLANGES
 - (2) 1 1/8" HOLE IN WASHER PLATE, INSIDE LOWER POST FLANGE, AND BOTH BENT PLATES

SECTION 3
SCALE: 1 1/2" = 1'-0"

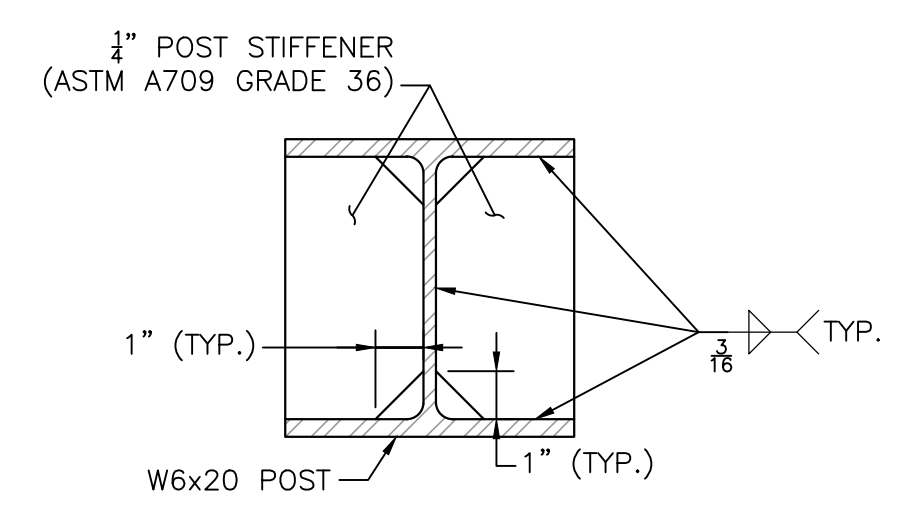
GENERAL NOTE:
1. REFER TO SHEET 8 FOR HAND RAIL DETAILS NOT SHOWN HERE.



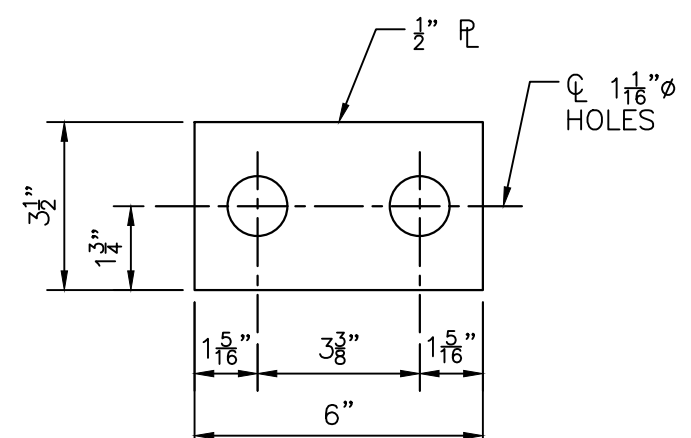
DETAILS OF POST
SCALE: 1 1/2" = 1'-0"



BENT PLATE AND WEDGE BRACKET
SCALE: 3" = 1'-0"



POST STIFFENERS
SCALE: 3" = 1'-0"



WASHER PLATE
SCALE: 3" = 1'-0"

NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

DRAWN BY:
BN
DESIGNED BY:
TW
CHECKED BY:
TW

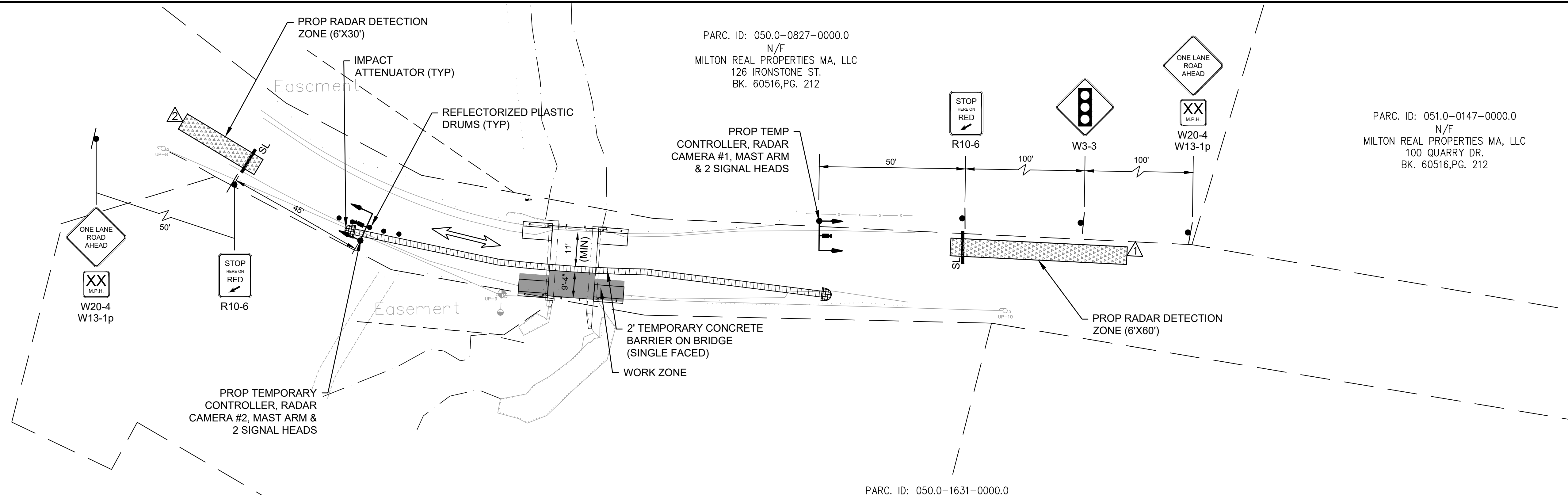
REGISTERED PROFESSIONAL
PREPARED BY
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SUBCONSULTANT
SCALE
AS SHOWN
UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

TITLE
Ironstone Road Bridge Improvements
Uxbridge, Massachusetts
THRIE BEAM DETAILS (2 OF 2)
BRIDGE NO. 0-02-069

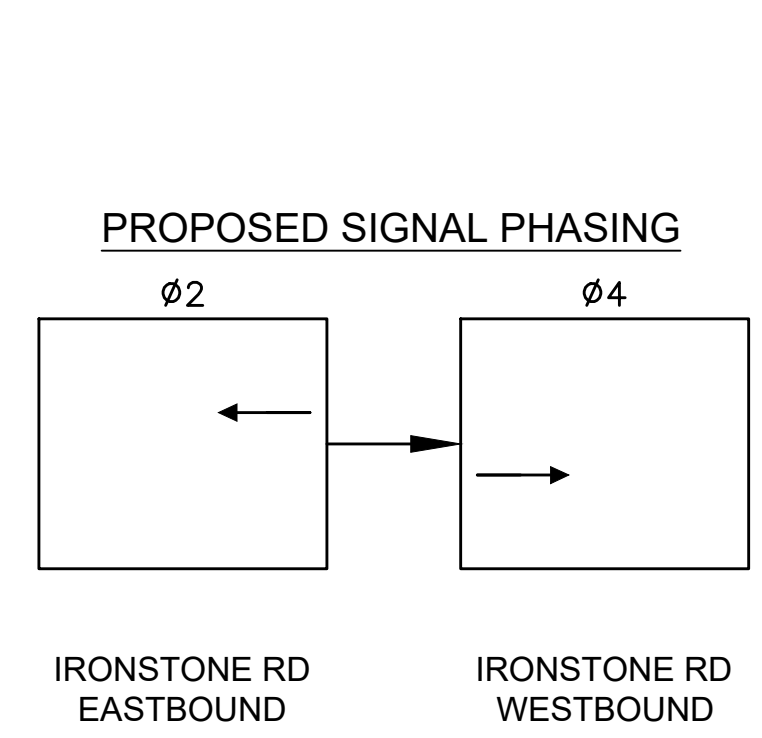
BETA JOB NO. 7545
ISSUE DATE
SHEET NO. 9

4/5/2022 3:35 PM \\BETA\IN\BDR01\UXBRIDGE\SMALL BRIDGE CONTRACT\DRAWING FILES\PLANSET\IRONSTONE\7546_S\RD\TOUR\IRON STONE.DWG (BETA STB BW STB)



SEQUENCE & TIMING FOR FULLY-ACTUATED TRAFFIC SIGNAL CONTROL (TEMPORARY)

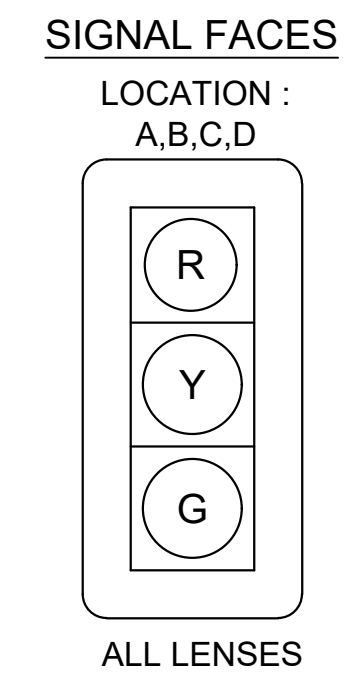
STREET	DIRECTION	HOUSINGS	Ø2			Ø4			FLASH OPER.
			1	2	3	4	5	6	
IRONSTONE RD	WB	A,B	R	R	R	G	Y	R	FR
IRONSTONE RD	EB	C,D	G	Y	R	R	R	R	FR
TIMING IN SECONDS									
MINIMUM GREEN			10			10			
VEHICLE EXTENSION			3			3			
MAXIMUM GREEN (ALL TIMES)			20			20			
EMERGENCY ONLY									
CLEARANCE INTERVAL				3	7		3	7	
RECALL			NONE			SOFT			
MEMORY			LOCK			LOCK			



STAGE 1
SCALE 1" = 20'

DETECTOR DATA

DETECTOR GROUP NO.	CAMERA	OPERATION	ZONE SIZE	CALL PHASE
1	1	PRESENCE	6'X60'	1
2	2	PRESENCE	6'X30'	2

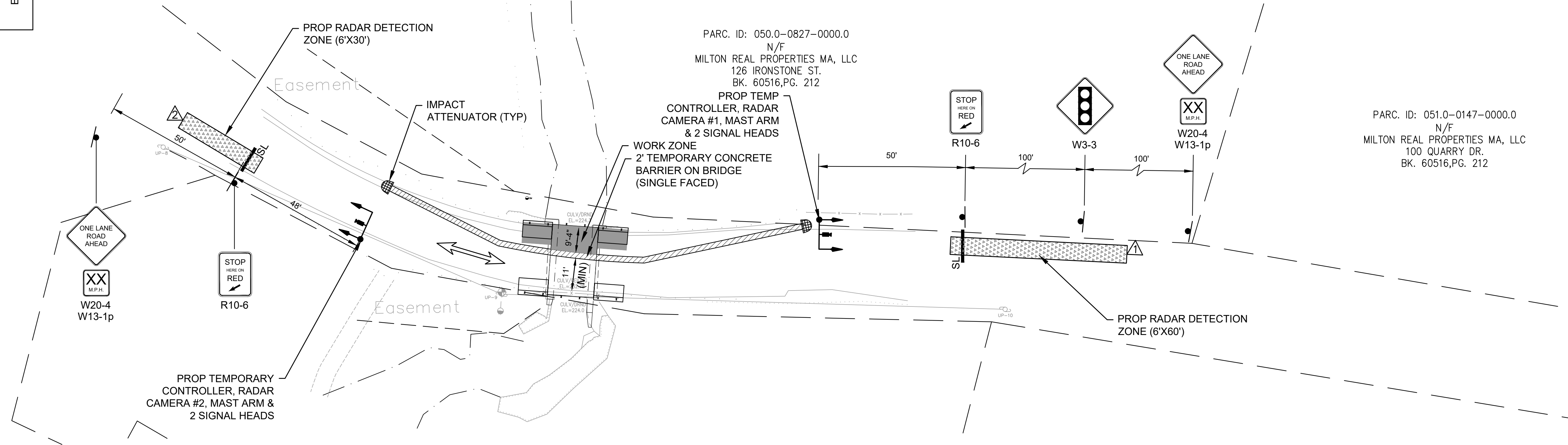


SAFETY SIGNING FOR CONSTRUCTION OPERATIONS

LEGEND	TYPE	SIZE	COLOR			UNIT AREA	NO. SIGNS	TOTAL AREA
			BACKGROUND	LEGEND	BORDER			
STOP HERE ON RED	R10-6	24" x 36"	WHITE	BLACK	BLACK	6 SF	2	12 SF
TRAFFIC SIGNAL	W3-3	36" x 36"	ORANGE**	BLACK	BLACK	9 SF	2	18 SF
ADVISORY SPEED	W13-1	24" x 24"	ORANGE**	BLACK	BLACK	4 SF	2	8 SF
ONE LANE ROAD AHEAD	W20-4	36" x 36"	ORANGE**	BLACK	BLACK	9 SF	2	18 SF
							TOTAL AREA OF SIGNS:	56 SF

* NO. OF SIGNS ARE ESTIMATED FOR BIDDING PURPOSES ONLY
** ALL CONSTRUCTION SIGNAGE SHALL HAVE FLUORESCENT ORANGE BACKGROUND

TWO LANE ROAD
ONE LANE ALTERNATING TRAFFIC WITH TEMPORARY SIGNAL



NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

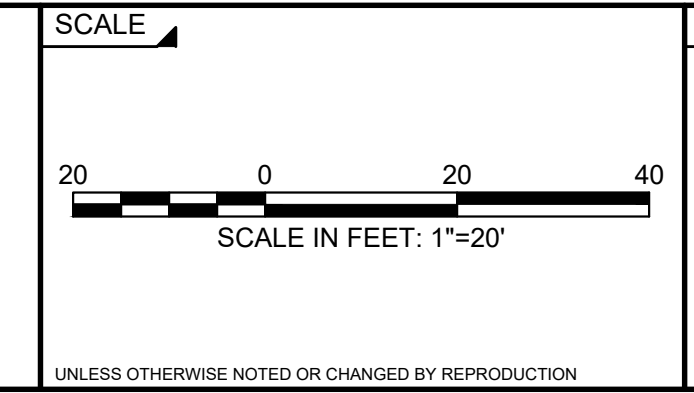
DRAWN BY: SD
DESIGNED BY: JC
CHECKED BY: TW

REGISTERED PROFESSIONAL PREPARED BY

Not for Construction

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SUBCONSULTANT



TITLE

**Ironstone Road Bridge Improvements
Uxbridge, Massachusetts**

TEMPORARY TRAFFIC CONTROL PLAN

BRIDGE NO. U-02-069

BETA JOB NO. 7545
ISSUE DATE
SHEET NO. 10

IMPACT LEGEND AND SUMMARY		
	TEMPORARY BANK IMPACTS:	8 S.F.
	RESTORED RIVERFRONT AREA:	46 S.F.
	TEMPORARY LAND UNDER WATER IMPACTS:	320 S.F.
	TEMPORARY RIVERFRONT AREA IMPACTS:	1068 S.F.
	REDEVELOPMENT - ASPHALT FOOTPRINT TO REMAIN:	2480 S.F.
	TEMPORARY BANK IMPACT:	8 L.F.
	PROPOSED DREDGING:	0 CY
	PROPOSED FILL WITHIN LUW:	0 CY



4/1/2022 4:41 PM N17546 - UXBRIDGE - SMALL BRIDGE CONTRACT/DRAWING FILES/PLANS/BETA/IMPACT PLAN - IRONSTONE.DWG (BETA STB BW.STB)

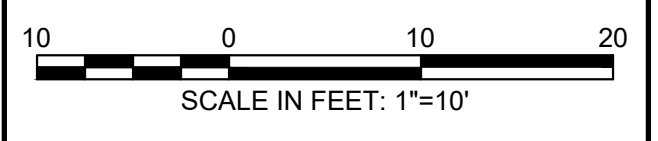
NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

DRAWN BY:	SLB / CT
DESIGNED BY:	SLB / CT / PP
CHECKED BY:	

PREPARED BY



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Ironstone Road Bridge improvements

RESOURCE IMPACTS PLAN

Ironstone Road
Uxbridge, MA

BETA JOB NO.	7545
ISSUE DATE	xx/xx/2022
SHEET NO.	8 OF xx



US Army Corps of Engineers®
New England District

WORK-START NOTIFICATION FORM
(Minimum Notice: Two weeks before work begins)

EMAIL TO: Maninder.Singh@usace.army.mil and cenae-r@usace.army.mil; or

MAIL TO: Maninder Singh
Regulatory Division
U.S. Army Corps of Engineers, New England District
696 Virginia Road
Concord, Massachusetts 01742-2751

Also, if the work is in the Massachusetts Coastal Zone (<https://www.mass.gov/service-details/czm-regions-coastal-communities-and-coastal-zone-boundary>), email this form to Sean.Duffey@mass.gov and patrice.bordonaro@mass.gov or mail it to: The Massachusetts Office of Coastal Zone Management, Project Review Coordinator, Suite 800, 251 Causeway Street, Boston, MA 02114.

Corps of Engineers Permit No. **NAE-2022-01047** was issued to **Paul Hutnak**. This work is located on Bacon Brook, Ironstone Road, Uxbridge, Massachusetts 01569 at site coordinates 42.02774, -71.60988 and authorized to discharge fill below the Ordinary High Water (OHW) mark of Waters of the U.S. in order to temporarily impact 320 square feet and 8 linear feet for the installation of water control structures, erosion control materials, and restoration of the original grade at project completion as part of rehabilitating the Ironstone Street Bridge.

The people (e.g., contractor) listed below will do the work, and they understand the permit's conditions and limitations.

PLEASE PRINT OR TYPE

Name of Person/Firm: _____

Business Address: _____

Phone & email: () _____ () _____

Proposed Work Dates: Start: _____ Finish: _____

Permittee/Agent Signature: _____ Date: _____

Printed Name: _____ Title: _____

Date Permit Issued: _____ Date Permit Expires: _____

FOR USE BY THE CORPS OF ENGINEERS

PM: _____ Submittals Required: _____

Inspection Recommendation: _____



**US Army Corps
of Engineers**®
New England District

COMPLIANCE CERTIFICATION FORM

(Minimum Notice: Permittee must sign and return notification
within one month of the completion of work.)

Permit Number: NAE-2022-01047

Project Manager: Maninder Singh

Name of Permittee: Paul Hutnak

Permit Issuance Date: August 20, 2024

Please sign this certification and return it to our office upon completion of the activity.

```

*****
* E-MAIL TO: cenae-r-ma@usace.army.mil; & Maninder.singh@usace.army.mil *
*
* MAIL TO: Massachusetts Section *
* Regulatory Division *
* U.S. Army Corps of Engineers, New England District *
* 696 Virginia Road *
* Concord, MA 01742-2751 *
*****

```

Please note that your permitted activity is subject to a compliance inspection by an U.S. Army Corps of Engineers representative. If you fail to comply with this permit you are subject to permit suspension, modification, or revocation.

I hereby certify that the work authorized by the above referenced permit was completed in accordance with the terms and conditions of the above referenced permit, and any required mitigation was completed in accordance with the permit conditions.

Signature of Permittee

Date

Printed Name

Date of Work Completion

() _____
Telephone Number

() _____
Telephone Number



DEPARTMENT OF THE ARMY
US ARMY CORPS OF ENGINEERS
NEW ENGLAND DISTRICT
696 VIRGINIA ROAD
CONCORD MA 01742-2751

August 20, 2024

Regulatory Division
File Number: NAE-2022-01048

Paul Hutnak
Town of Uxbridge
147 Hecla Street
Uxbridge, Massachusetts 01569
(Via Email): phutnak@uxbridge-ma.gov

Dear Paul Hutnak:

This is in response to a recent request dated June 24, 2024, to reauthorize a project authorized by the Department of the Army permit number NAE-2022-01048 on July 14, 2022. The authorization was to discharge fill below the Ordinary High Water (OHW) mark of waters of the United States in order to temporarily impact 390 square feet and 8 linear feet of waters with the installation of water control structures, erosion control materials, and restoration of the original grade at project completion as part of rehabilitating the Carney Street Bridge. The project activities are hereby reauthorized under the June 2, 2023, Massachusetts General Permits. The work is located at approximately 100 feet southwest of the intersection of Carney Street and Douglas Street, Uxbridge, Massachusetts 01569 at approximate site coordinates 42.076590, -71.632180. The work is shown on the enclosed plans titled "TOWN OF UXBRIDGE, MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS CARNEY STREET BRIDGE PRESERVATION" on 12 sheets and dated "APRIL 2022".

Based on the information that you have provided, we verify that the activity is authorized under General Permit # 23 of the June 2, 2023, federal permit known as the Massachusetts General Permits (GPs). The GPs are available at <https://www.nae.usace.army.mil/Missions/Regulatory/State-General-Permits/Massachusetts-General-Permit>.

Please review the enclosed GPs carefully, in particular the general conditions beginning on page 35, and ensure that you and all personnel performing work authorized by the GPs are fully aware of and comply with its terms and conditions. A copy of the GPs and this verification letter shall be available at the work site as required by General Condition 17. You must perform this work in compliance with the following special condition(s):

- 1) You must complete and return the enclosed Work Start Notification Form to this office at least two weeks before the anticipated start date. The form shall be emailed to Maninder Singh at Maninder.Singh@usace.army.mil and

r@usace.army.mil; or mailed to Maninder Singh, Regulatory Division, U.S. Army Corps of Engineers, New England District, 696 Virginia Road, Concord, Massachusetts 01742-2751.

- 2) You must complete and return the enclosed Compliance Certification Form to this office within one month of the completion of work. The form shall be emailed to Maninder Singh at Maninder.Singh@usace.army.mil and cenae-r@usace.army.mil; or mailed to Maninder Singh, Regulatory Division, U.S. Army Corps of Engineers, New England District, 696 Virginia Road, Concord, Massachusetts 01742-2751.

This authorization expires on June 1, 2028. You must commence or have under contract to commence the work authorized herein by June 1, 2028, and complete the work by June 1, 2029. If not, you must contact this office to determine the need for further authorization and we recommend you contact us *before* the work authorized herein expires. Please contact us immediately if you change the plans or construction methods for work within our jurisdiction as we must approve any changes before you undertake them. Performing work within our jurisdiction that is not specifically authorized by this determination or failing to comply with the special condition(s) provided above or all the terms and conditions of the GPs may subject you to the enforcement provisions of our regulations.

This authorization does not obviate the need to obtain other federal, state, or local authorizations required by law. Applicants are responsible for applying for and obtaining any other approvals.

We continually strive to improve our customer service. To better serve you, we would appreciate your completing our Customer Service Survey located at <https://regulatory.ops.usace.army.mil/customer-service-survey>.

Please contact Maninder Singh of my staff at (978) 318-8967 or (978)-257-6884 or Maninder.Singh@usace.army.mil if you have any questions.

Sincerely,

Paul Maniccia

Paul Maniccia
Chief, Massachusetts Section
Regulatory Division

Enclosures

Cc:

Todd Warzecki, BETA Group, Inc.; TWarzecki@BETA-Inc.com

Ed Reiner, U.S. EPA, Region 1, Boston, MA, reiner.ed@epa.gov

Croy, U.S. EPA, Region 1, Boston, MA, croy.rachel@epa.gov

DEP CERO, Wetlands and Waterways, Worcester, MA; zero_noi@mass.gov

David Robinson, MA Board of Underwater Archaeological Resources (BUAR);
david.s.robinson@mass.gov

Uxbridge Conservation Commission, EPetro@uxbridge-ma.gov

TOWN OF UXBRIDGE, MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS CARNEY STREET BRIDGE PRESERVATION APRIL 2022

BOARD OF SELECTMEN

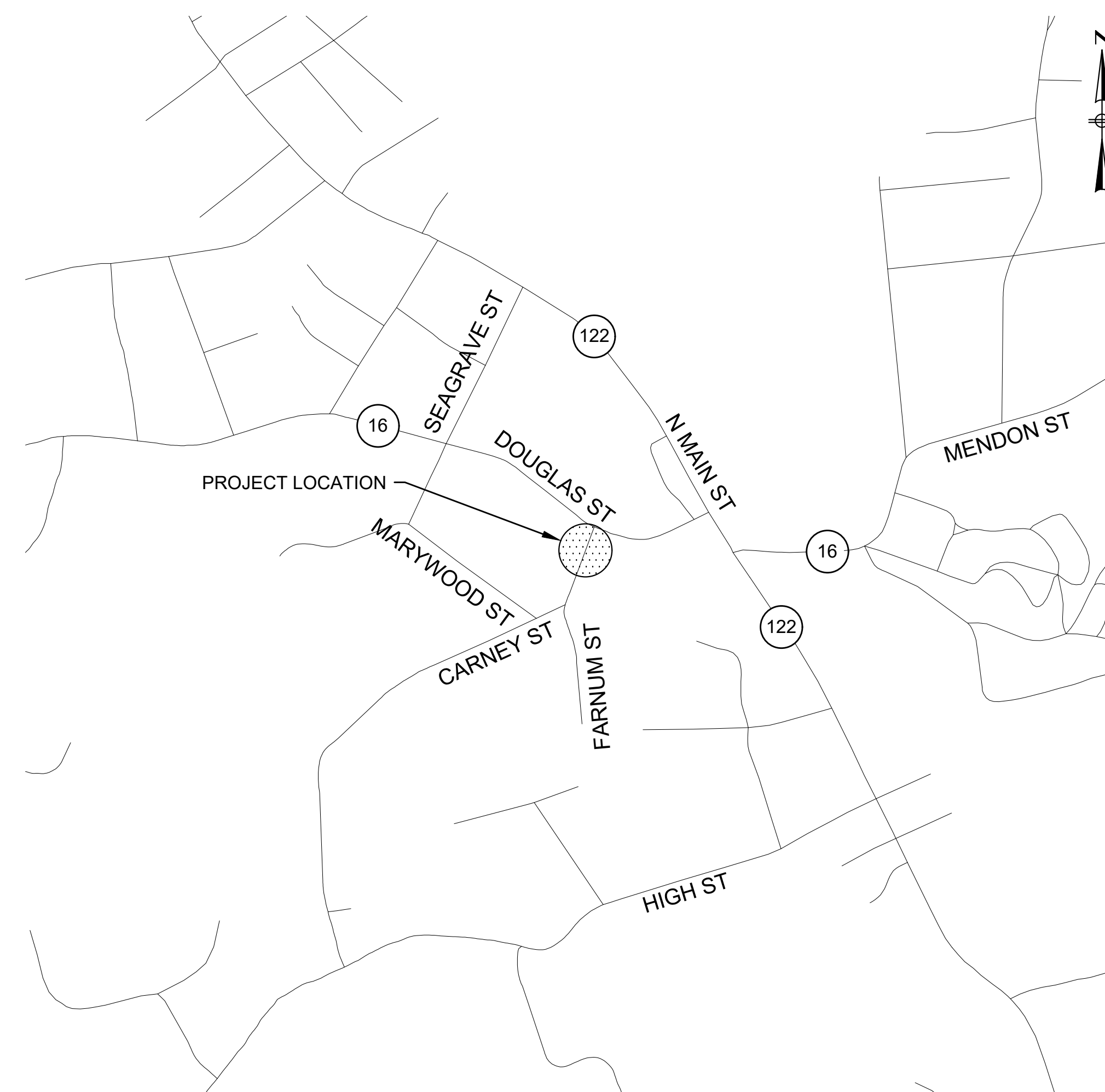
BRIAN BUTLER
JEFF SHAW
STEPHEN MANDILE
SUSAN FRANZ
BRIAN PLASKO

TOWN MANAGER

STEVEN SETTE

DEPARTMENT OF PUBLIC WORKS

BENN S. SHERMAN, PE, DIRECTOR
PAUL HUTNUK, PE, CIVIL ENGINEER



LOCATION MAP
SCALE 1" = 500'

PLAN INDEX

<u>SHEET NO.</u>	<u>DESCRIPTION</u>
1	COVER SHEET
2	GENERAL NOTES & LEGEND
3	CONSTRUCTION PLAN AND PROFILE
4	CONSTRUCTION DETAILS
5	BRIDGE COVER SHEET
6	STRUCTURAL DETAILS
7	CONCRETE REPAIR DETAILS
8	THRIE BEAM DETAILS (1 OF 2)
9	THRIE BEAM DETAILS (2 OF 2)
10-11	DETOUR PLAN

**100%
SUBMISSION**

PREPARED BY:



www.BETA-Inc.com

ISSUE DATE: APRIL 5, 2022

REGISTERED PROFESSIONAL _____ DATE _____

LEGEND

GENERAL SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
□ CB	■ CB	CURB OR BERM (TYPE AS NOTED)
○ EHH	○ EHH	EDGE OF PAVEMENT
⊕	⊕	CATCH BASIN (OR GUTTER INLET, LEACHING BASIN, DROP INLET, CATCH BASIN CURB INLET)
⊙	⊙	ELECTRIC HANDHOLE (NUMBER AS NOTED)
⊗	⊗	ELECTRIC MANHOLE
⊚	⊚	TELEPHONE MANHOLE
⊙	⊙	WATER MANHOLE
⊙	⊙	SEWER MANHOLE
⊙	⊙	DRAINAGE MANHOLE
○ GG	○ GG	GAS GATE
○ WG	○ WG	WATER GATE
○ CS	○ CS	CURB STOP
HYD.	↑ HYD	HYDRANT
FA	■ FAB	FIRE ALARM BOX
PM	⊙	PARKING METER
LP	⊙	STREET LIGHT POLE
UP	⊙	UTILITY POLE
UPL	⊙	UTILITY POLE w/ LIGHT
GUY	⊙	GUY POLE
12" RCP	—	DRAIN PIPE (SIZE AS NOTED)
8" VCP	—	SEWER MAIN (SIZE AS NOTED)
E	—	ELECTRIC DUCT
4" HP	—	GAS MAIN (SIZE AS NOTED)
8" CI	—	WATER MAIN (SIZE AS NOTED)
W	—	TELEPHONE DUCT (SIZE AS NOTED)
EOH	—	OVERHEAD WIRE
MB	□ MB	MAIL BOX
	—	WOOD GUARD RAIL STEEL BEAM GUARD, WOOD OR STEEL POSTS (TYPE AS NOTED)
	—	STEEL GUARD RAIL, STEEL POSTS (TYPE NOTED)
	—	STONE WALL
	—	RETAINING WALL (TYPE NOTED)
BND	■ BND	HIGHWAY/PROPERTY BOUND (TYPE AS NOTED)
SHLO (Date of Layout)	—	STATE HIGHWAY LAYOUT LINE (SHLO)
Boundary Name	—	CITY, TOWN OR COUNTY LAYOUT LINE (R.O.W.)
	—	CITY, TOWN, COUNTY OR STATE BOUNDARY LINE
	—	PROPERTY LINE
	—	EASEMENT LINE (TYPE NOTED)
	—	CONSTRUCTION BASELINE
	—	SURVEY LINE
	—	RAILROAD OR STREET RAILWAY TRACKS WITH SIDELINES
	—	WHEELCHAIR RAMP
	⊙	TREE (SIZE AND TYPE AS NOTED)
	—	HEDGE/SHRUBS
	—	FENCE (SIZE AND TYPE AS NOTED)
	—	EDGE OF WETLAND w/ FLAGGED NUMBER
	—	EDGE OF RIVER/STREAM LINE
	—	100-FT. WETLAND BUFFER LIMIT
	—	100-FT. RIVER FRONT LIMIT
	—	200-FT. RIVER FRONT LIMIT
	—	WOODED AREA / LIMIT OF CLEARING
	—	SPOT GRADE
	—	SAW CUT LINE
	⊙	TEST PIT
	⊙	BORING
	—	EROSION CONTROL BARRIER/COMPOST FILTER TUBES

ABBREVIATIONS

GENERAL

ABAN	ABANDON
ADJ	ADJUST
ALT	ALTERATION
APPROX	APPROXIMATE
BL	BASELINE
BB	BITUMINOUS BERM
BC	BITUMINOUS CURB
BD OR BND	BOUND
BLDG	BUILDING
BO	BY OTHERS
BOS	BOTTOM OF SLOPE
BOW	BOTTOM OF WALL
BSW	BACK OF SIDEWALK
CC	CONCRETE CURB
CEM	CEMENT
CLF	CHAIN LINK FENCE
CONC	CONCRETE
CONST	CONSTRUCTION
CONT	CONTINUOUS
DWY	DRIVEWAY
EP, EOP	EDGE OF PAVEMENT
EL	ELEVATION
ESMT	EASEMENT
EXIST	EXISTING
FDN	FOUNDATION
GRAN	GRANITE
GC	GRANITE CURB
HOR	HORIZONTAL
IP	IRON PIPE
JCT	JUNCTION
LP	LOW POINT
MB	MAIL BOX
MHB	MASSACHUSETTS HIGHWAY BOUND
OC	ON CENTER
PCC	POINT OF COMPOUND CURVATURE
PC	POINT OF CURVATURE
PRC	POINT OF REVERSE CURVATURE
PI	POINT OF INTERSECTION
PT	POINT OF TANGENCY
PVC	POINT OF VERTICAL CURVATURE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY
PERM	PERMANENT
PGL	PROFILE GRADE LINE
PROP	PROPOSED
PVC	POINT OF VERTICAL CURVATURE
PVMT	PAVEMENT
R	RADIUS OF CURVATURE
R&D	REMOVE AND DISCARD
R&R	REMOVE AND RESET
R&S	REMOVE AND STACK
REM	REMOVE
REMOD	REMODEL
RET	RETAIN
RR	RAILROAD
RT	RIGHT
SB	SOUTH BOUND OR STONE BOUND
SW	SIDEWALK
SHT	SHEET
SHLD	SHOULDER
STA	STATION
TEMP	TEMPORARY
TOS	TOP OF SLOPE
TOW	TOP OF WALL
TYP	TYPICAL
VAR	VARIABLE
VERT	VERTICAL
VGC	VERTICAL GRANITE CURB
WCR	WHEELCHAIR RAMP

TRAFFIC SIGNAL SYSTEMS

R	STEADY CIRCULAR RED
Y	STEADY CIRCULAR AMBER
G	STEADY CIRCULAR GREEN
FR	FLASHING CIRCULAR RED
FY	FLASHING CIRCULAR AMBER
+FY	FLASHING YELLOW LEFT ARROW
R-	STEADY RED RIGHT ARROW
Y-	STEADY AMBER RIGHT ARROW
G-	STEADY GREEN RIGHT ARROW
+R	STEADY RED LEFT ARROW
+Y	STEADY AMBER LEFT ARROW
+G	STEADY GREEN LEFT ARROW
W	STEADY WALK (PERSON WALKING) - LUNAR WHITE
DW	STEADY DON'T WALK (HAND) - PORTLAND ORANGE
FDW	FLASHING DON'T WALK (FLASHING HAND) - PORTLAND ORANGE

UTILITIES

CB	CATCH BASIN
GBCI	CATCH BASIN WITH CURB INLET
CI	CURB INLET
CIP	CAST IRON PIPE
CMP	CORRUGATED METAL PIPE
C	CONDUIT
CPP	CORRUGATED PLASTIC PIPE
CSP	CORRUGATED STEEL PIPE
DI	DUCTILE IRON PIPE
F&C	FRAME AND COVER
F&G	FRAME AND GRATE
FM	FORCE MAIN
GI	GUTTER INLET
GIP	GALVANIZED IRON PIPE
GG	GAS GATE
HYD	HYDRANT
INV	INVERT ELEVATION
LP	LIGHT POLE
MH	MANHOLE
PVC	POLY-VINYL-CHLORIDE PIPE
RCP	REINFORCED CONCRETE PIPE (CLASS III UNLESS NOTED)
SD	SUBDRAIN
SMH	SEWER MANHOLE
TS	TRAFFIC SIGNAL
UP	UTILITY POLE
UPM	UTILITY POLE w/ LIGHT
UPT	UTILITY POLE w/ TRANSFORMER
VCP	VITRIFIED CLAY PIPE
WG	WATER GATE
WM	WATER METER/WATER MAIN

TRAFFIC SIGNAL SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
⊕	⊕	CONTROL CABINET GROUND MOUNTED WITH FOUNDATION
⊕	⊕	CONTROL CABINET POLE MOUNTED
⊕	⊕	CONTROLLER PHASE
MA-1	MA-1	MAST ARM, SHAFT & BASE (ARM LENGTH AS NOTED)
⊕	⊕	VEHICULAR SIGNAL HEAD (ALPHA-NUMERIC DESIGNATION AS NOTED)
⊕	⊕	VEHICULAR SIGNAL HEAD, OPTICALLY PROGRAMMED
⊕	⊕	VEHICULAR SIGNAL HEAD (REMOVED & RESET)
⊕	⊕	FLASHING BEACON
⊕	⊕	PEDESTRIAN SIGNAL HEAD
⊕	⊕	PEDESTRIAN SIGNAL HEAD, OPTICALLY PROGRAMMED
⊕	⊕	PULL BOX 12"x12" OR HANDHOLE
⊕	⊕	LOOP DETECTOR
⊕	⊕	PEDESTRIAN PUSH BUTTON, SIGN (DIRECTIONAL ARROW AS SHOWN) AND SADDLE
⊕	⊕	PRE-EMPTION DETECTOR
⊕	⊕	PRE-EMPTION CONFIRMATION STROBE
⊕	⊕	SIGNAL CONDUIT (SINGLE RUN)
⊕	⊕	SIGNAL CONDUIT (DOUBLE RUN)
⊕	⊕	SIGNAL POST & BASE
⊕	⊕	MAGNETIC DETECTOR
⊕	⊕	SCHOOL ZONE SPEED LIMIT SIGN
⊕	⊕	MICROWAVE OR ULTRASONIC DETECTOR
⊕	⊕	VIDEO DETECTION CAMERA
⊕	⊕	VIDEO DETECTION ZONE

PAVEMENT MARKINGS AND SIGNING SYMBOLS

PROPOSED

CW	CROSSWALK, 2 - 12" WHITE LINES (8" WIDTH)
SL	STOP LINE - 12" WHITE LINE 4' BEHIND CW (TYP.)
SWEL	SOLID WHITE EDGE LINE - 4"
SWCHL	SOLID WHITE CHANNELIZING LINES - 12" (SPACING NOTED)
SWGL	SOLID WHITE GORE LINE 12" @ 33°, (SPACING NOTED)
SWLL	SOLID WHITE LANE LINE - 4"
SWPL	SOLID WHITE PARKING LINE - 4"
BWLL	BROKEN WHITE LANE LINE - 4"
DWLEX	DOTTED WHITE LANE EXTENSION LINE - 4" (2' LINE & 6' GAP)
DYLEX	DOTTED YELLOW LANE EXTENSION LINE - 4" (2' LINE & 6' GAP)
BYCL	BROKEN YELLOW CENTERLINE - 4"
DYCL	DOUBLE YELLOW CENTERLINE - 2 - 4" LINES
SYEL	SOLID YELLOW EDGE LINE - 4"
SYGL	SOLID YELLOW GORE LINE 12" @ 33°, (SPACING NOTED)
SYLL	SOLID YELLOW LANE LINE - 4"
SYCTEL	SOLID YELLOW CYCLE TRACK EDGE LINE - 4"
DYCTEL	DOTTED YELLOW CYCLE TRACK CENTERLINE - 4" (3' LINE & 9' GAP)
SCHOOL	SCHOOL ZONE - WHITE
♿	HANDICAP SYMBOL - WHITE
➔	PAVEMENT ARROW - WHITE
ONLY	LEGEND "ONLY" - WHITE

4/5/2022 3:37 PM \\BETA\IN\BDR01\UXBRIDGE\7546 - UXBRIDGE - SMALL BRIDGE CONTRACT\DRAWING FILES\PLANSET\CARNEY\7546_SR\LEGEND.dwg (BETA STB BW STB)

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DESIGNED BY:	BB
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SCALE
NONE

TITLE

**Carney Street Bridge Improvements
Uxbridge, Massachusetts**
LEGEND AND ABBREVIATIONS

BETA JOB NO. 7545
ISSUE DATE
SHEET NO. 2

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HIGHWAY GUARD DETAILS

TRAILING ANCHORAGE STA 0+33 TO 0+42.5 LT
 GUARDRAIL - TL-2 (SINGLE FACED) 0+42.5 TO 57.5 LT
 TRANSITION TO THRIE BEAM STA 0+57.5 TO 0+63.5 LT
 BRIDGE THRIE BEAM GUARDRAIL 0+63.5 TO 1+01 LT
 TRANSITION TO THRIE BEAM STA 1+01 TO 1+07 LT
 GUARDRAIL TANGENT END TREATMENT, TL-3 STA 1+07 TO 1+31 LT

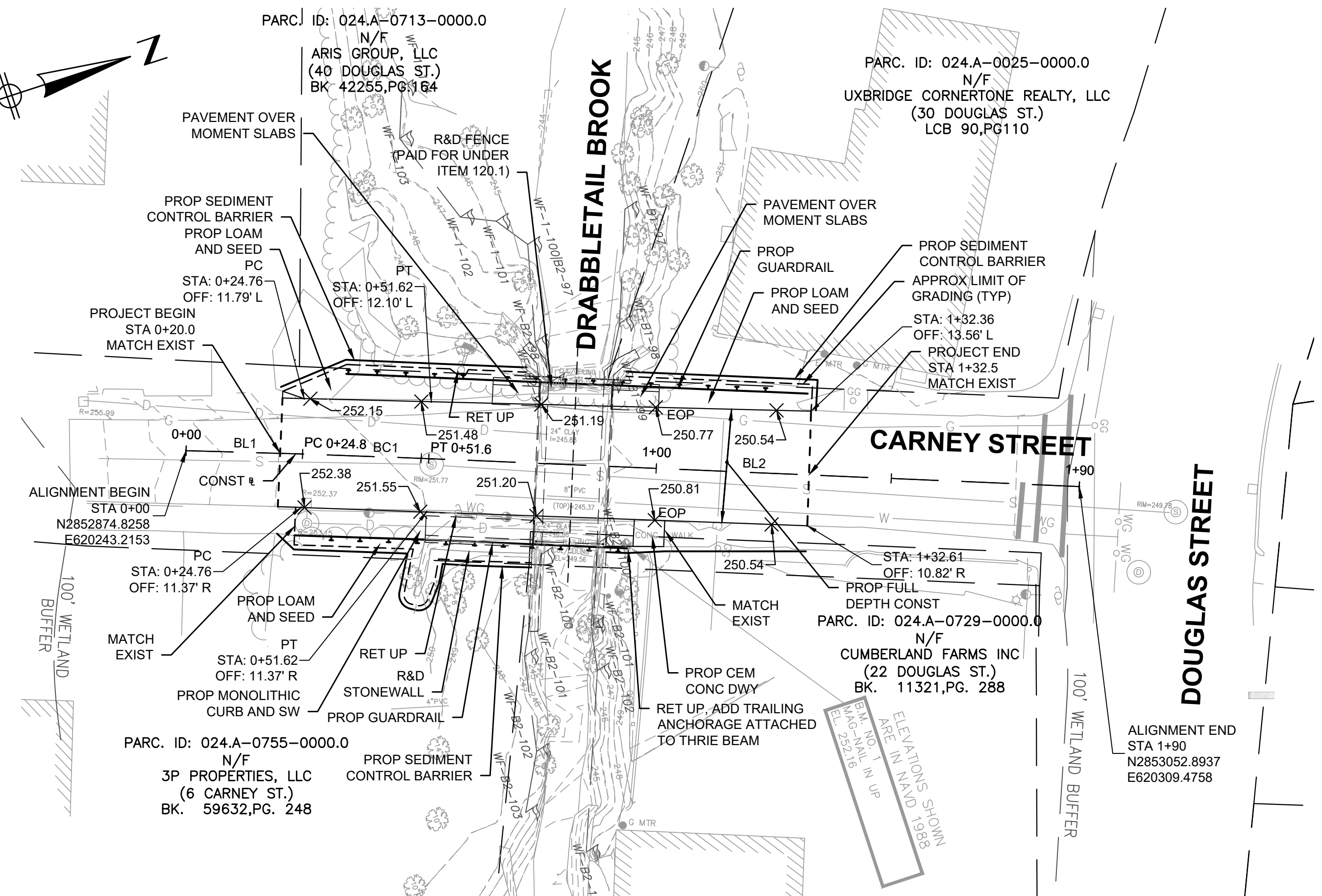
GUARDRAIL TANGENT END TREATMENT, TL-2 STA 0+20.5 TO 0+44 RT
 TRANSITION TO THRIE BEAM STA 0+44 TO 0+50 RT
 BRIDGE THRIE BEAM GUARDRAIL 0+50 TO 0+88 RT
 THRIE BEAM TRAILING ANCHORAGE STA 0+88 TO 0+93 RT

PAVEMENT NOTES

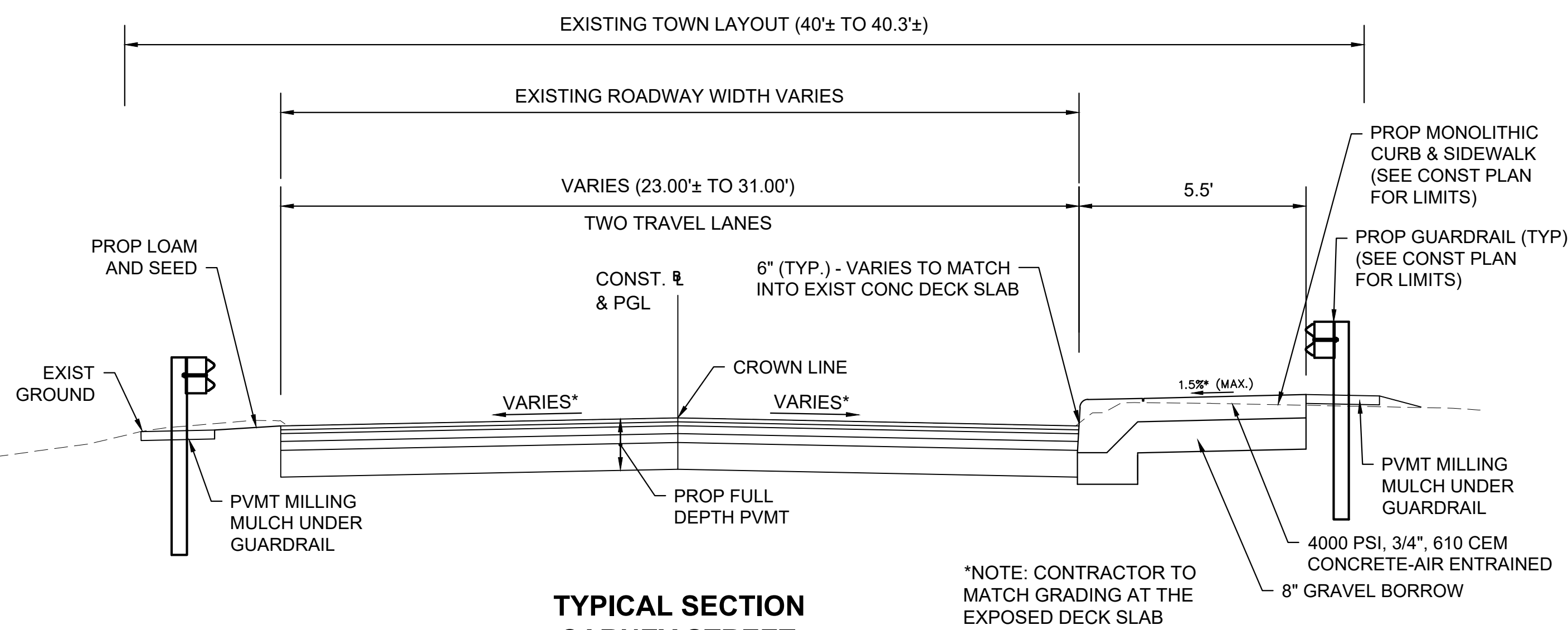
FULL DEPTH PAVEMENT
 SURFACE COURSE: 1-3/4" SUPERPAVE SURFACE COURSE - 12.5 (SSC-12.5) OVER ASPHALT EMULSION FOR TACK COAT (RS-1H) OVER
 INTERMEDIATE COURSE: 1-3/4" SUPERPAVE INTERMEDIATE COURSE - 12.5 (SIC-12.5) OVER ASPHALT EMULSION FOR TACK COAT (RS-1H) OVER
 BASE COURSE: 3-1/2" SUPERPAVE BASE COURSE - 37.5 (SBC-37.5) OVER
 SUB-BASE: 4" DENSE GRADED CRUSHED STONE FOR SUB-BASE OVER 8" GRAVEL BORROW TYPE b (M1.03.01)

PROJECT TACK COAT NOTES
 TACK COAT: ASPHALT EMULSION FOR TACK COAT, GRADE RS-1 SHALL BE PLACED AT A RATE OF:
 0.07 GALLONS PER SQUARE YARD OVER MILLED SURFACES
 0.07 GALLONS PER SQUARE YARD OVER CEMENT CONCRETE
 BASE COURSE
 0.05 GALLONS PER SQUARE YARD OVER SMOOTH TIGHT PAVEMENTS
 PRIOR TO PAVING AN OVERLAY

CARNEY STREET CL CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
BL1	0+00.00	2852874.8258	620243.2153		N19°47'45"E 24.76'	0+24.76	2852898.1238	620251.6012
BC1	0+24.76	2852898.1238	620251.6012	R = 2000.00' Δ = 0°46'10" L = 26.86' T = 13.43'		0+51.62	2852923.3313	620260.8661
BL2	0+51.62	2852923.3313	620260.8661		N20°33'55"E 138.38'	1+90.00	2853052.8937	620309.4758

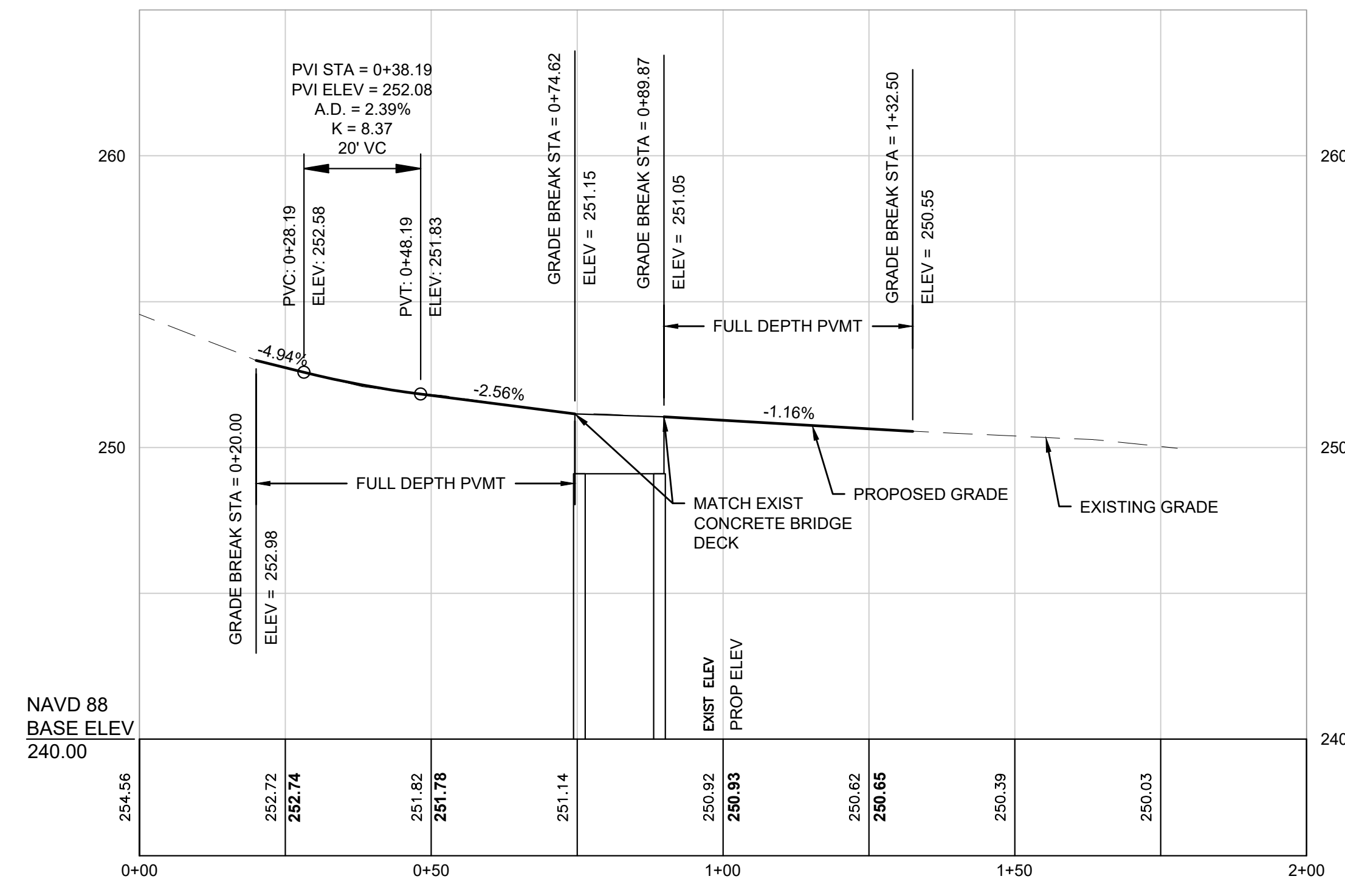


PLAN
SCALE: 1" = 20'



TYPICAL SECTION
CARNEY STREET
STA 0+20± TO STA 0+74± AND
STA 0+90± TO STA 1+33±
 NOT TO SCALE

*NOTE: CONTRACTOR TO MATCH GRADING AT THE EXPOSED DECK SLAB



PROFILE
SCALE:
VERT: 1" = 4'
HORIZ: 1" = 20'

4/5/2022 3:37 PM I:\BETA\IN\BDR01\UXBRIDGE\7546 - UXBRIDGE - SMALL BRIDGE CONTRACT\DRAWING FILES\PLANSET\CARNEY7546_SR(CONSTRUCTION PLAN AND PROFILE)_CARNEY.DWG (BETA STB BW) (STB)

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SCALE: AS SHOWN

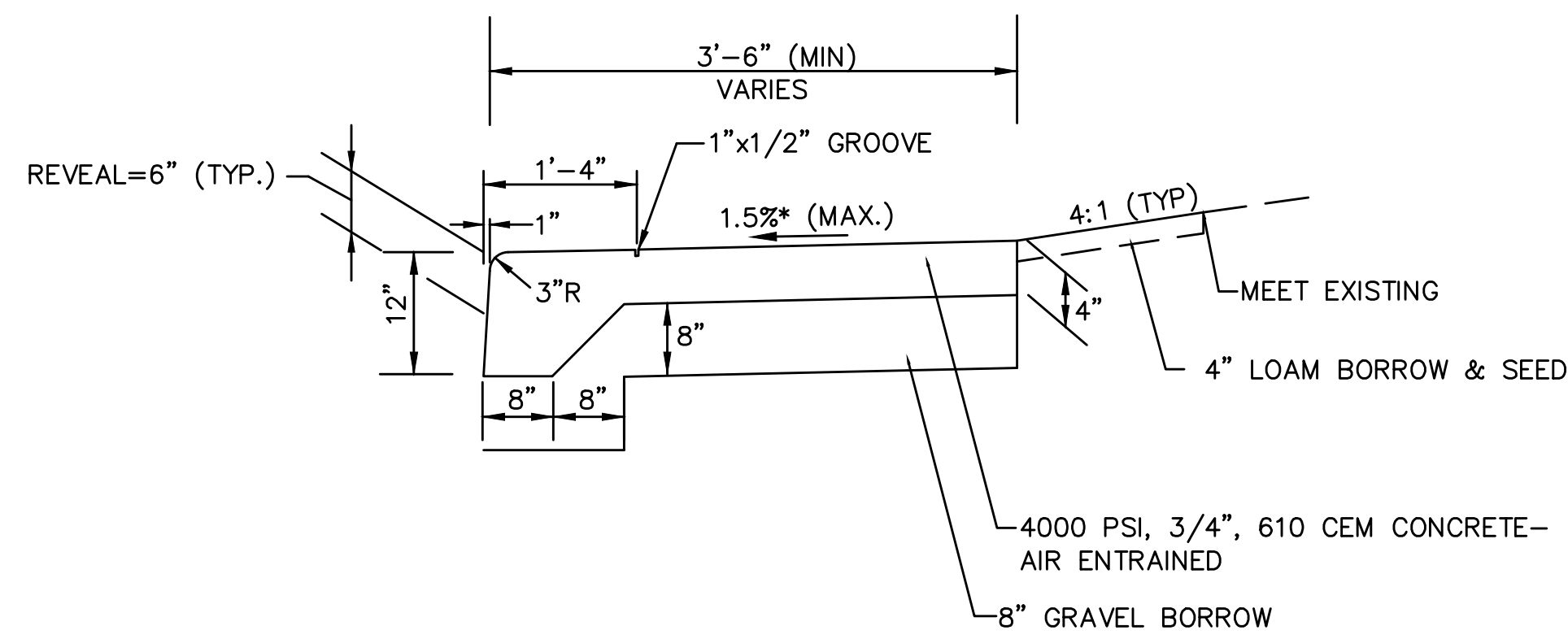
TITLE: Carney Street Bridge Improvements
Uxbridge, Massachusetts
CONSTRUCTION PLAN AND PROFILE

BETA JOB NO. 7545

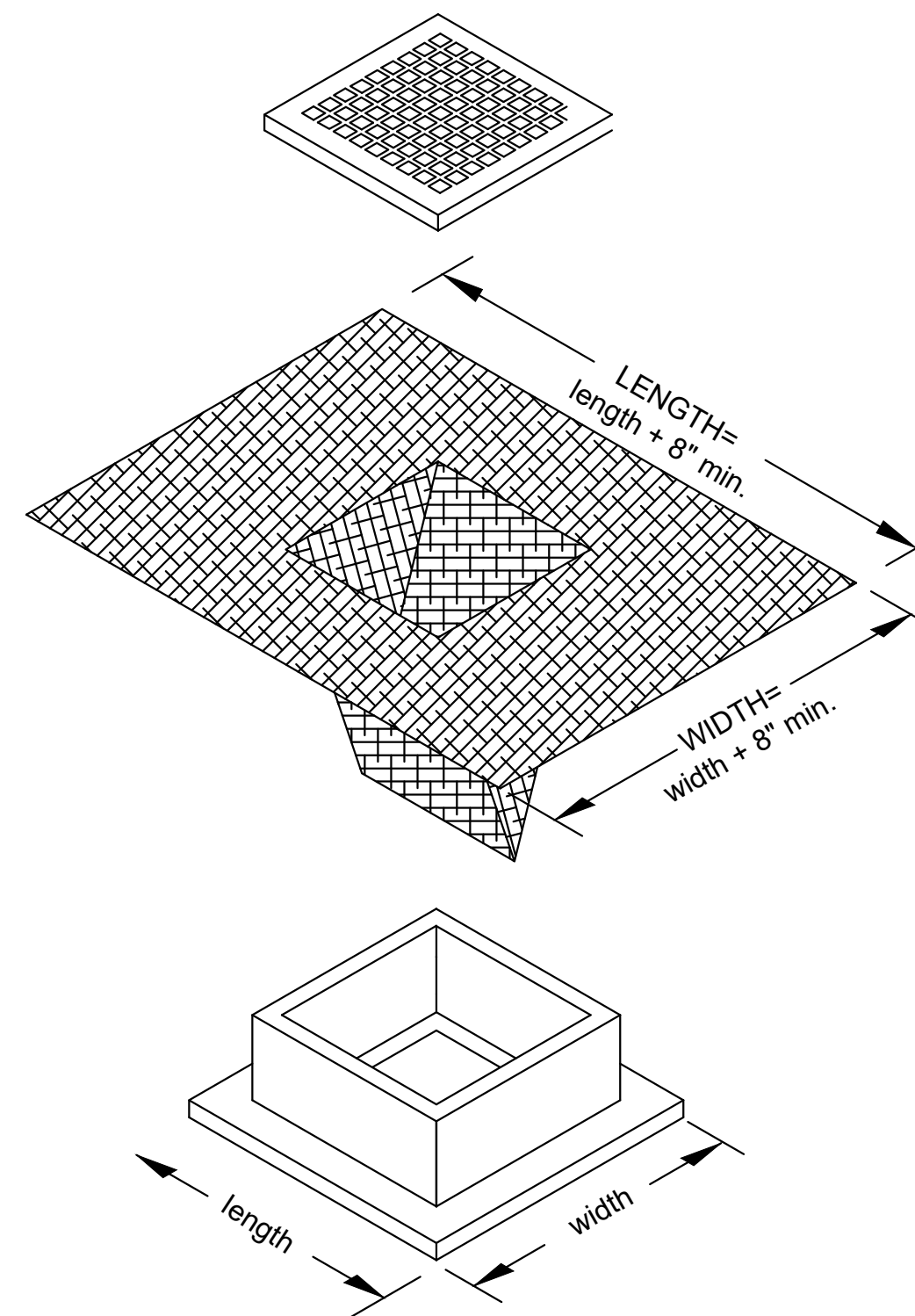
ISSUE DATE

SHEET NO. 3

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MONOLITHIC CURB & SIDEWALK DETAIL

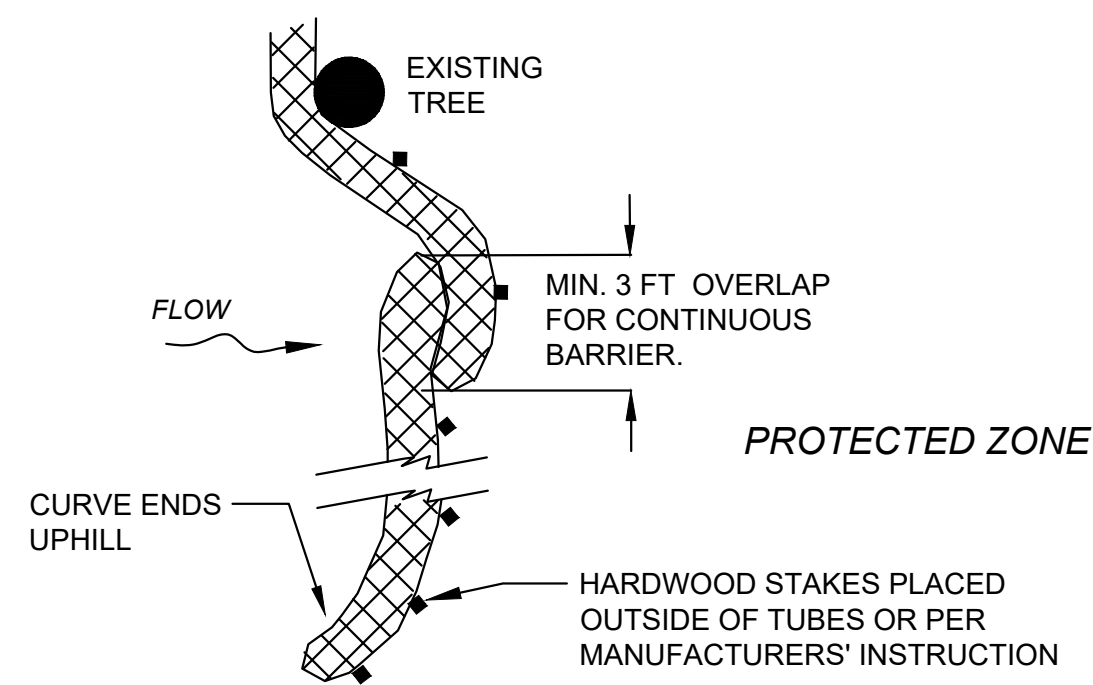


NOTES

1. LENGTH AND WIDTH OF POLYPROPYLENE FABRIC MUST EXCEED EXISTING CATCH BASIN FRAME DIMENSIONS BY A MINIMUM OF 8".
2. REMOVE CATCH BASIN GRATE AND INSTALL POLYPROPYLENE FABRIC OVER CATCH BASIN FRAME. REPLACE CATCH BASIN GRATE TO SECURE POLYPROPYLENE FABRIC IN PLACE.

SILT SACK

NOT TO SCALE

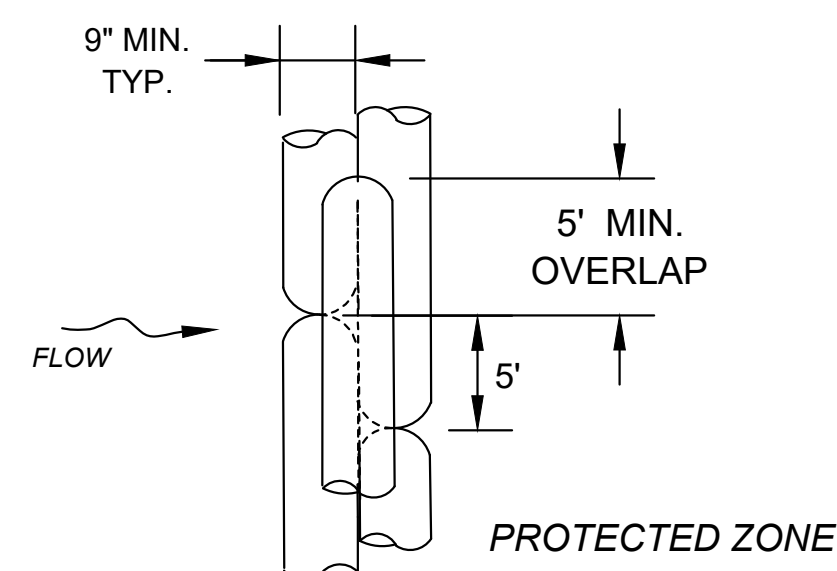


PLACE TUBE AS CLOSE TO LIMIT OF SOIL DISTURBANCE AS POSSIBLE, ALONG CONTOURS, AND PERPENDICULAR TO FLOW.

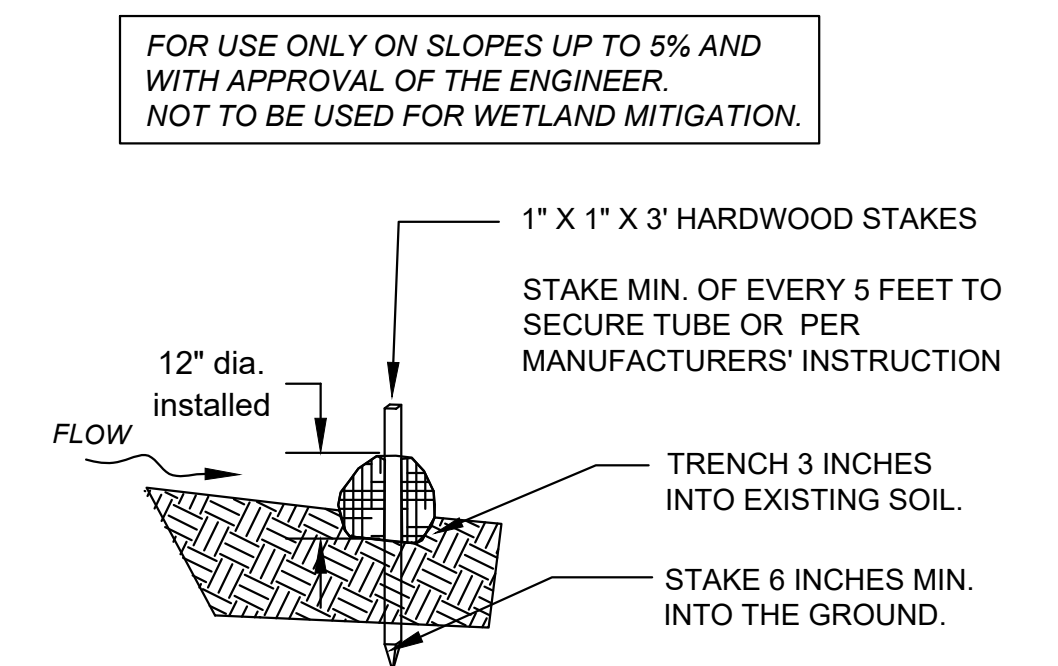
ADJUST LOCATION AS REQUIRED FOR OPTIMUM EFFECTIVENESS. DO NOT INSTALL IN WATERWAYS.

PLAN VIEW

WHERE SPECIFIED ON CONSTRUCTION PLANS OR AS REQUIRED



PLAN VIEW

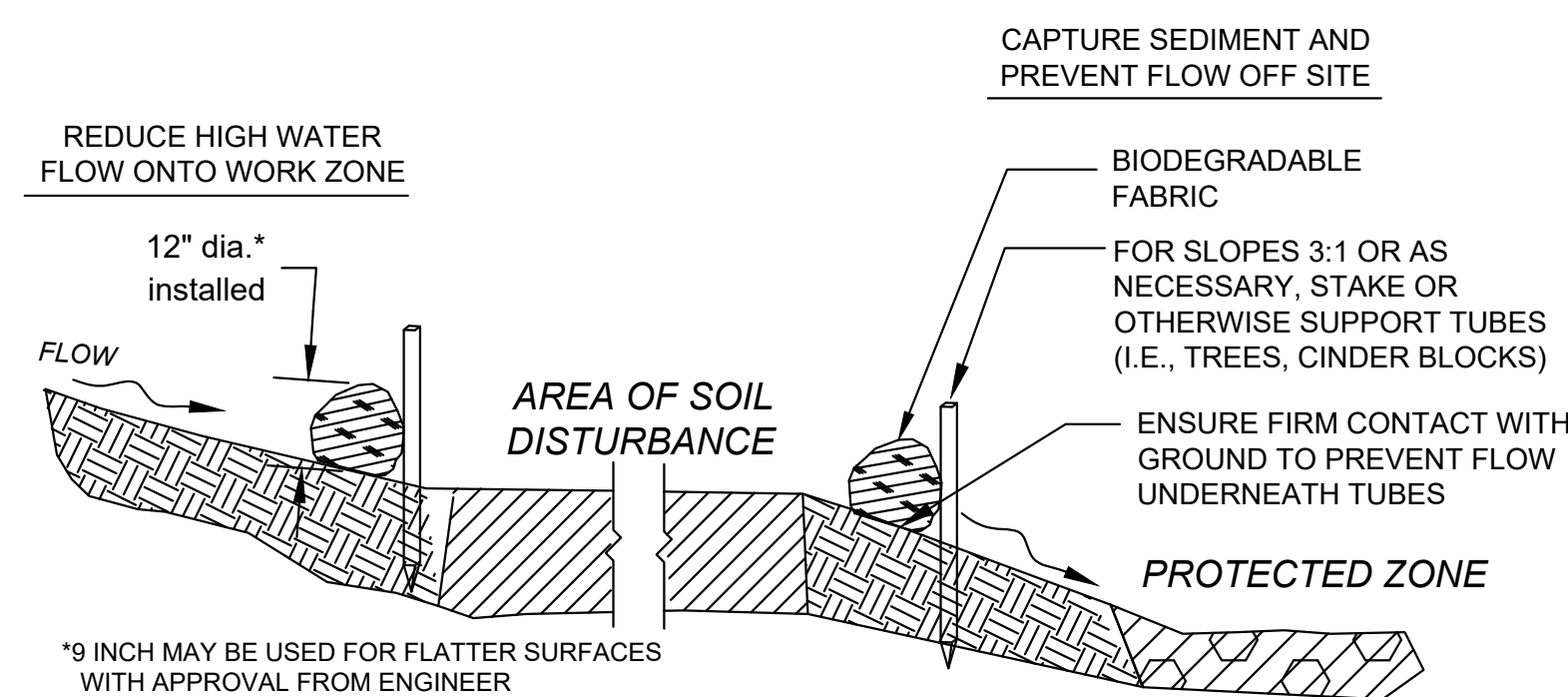


FOR USE ONLY ON SLOPES UP TO 5% AND WITH APPROVAL OF THE ENGINEER. NOT TO BE USED FOR WETLAND MITIGATION.

SECTION

12 INCH STRAW WATTLE

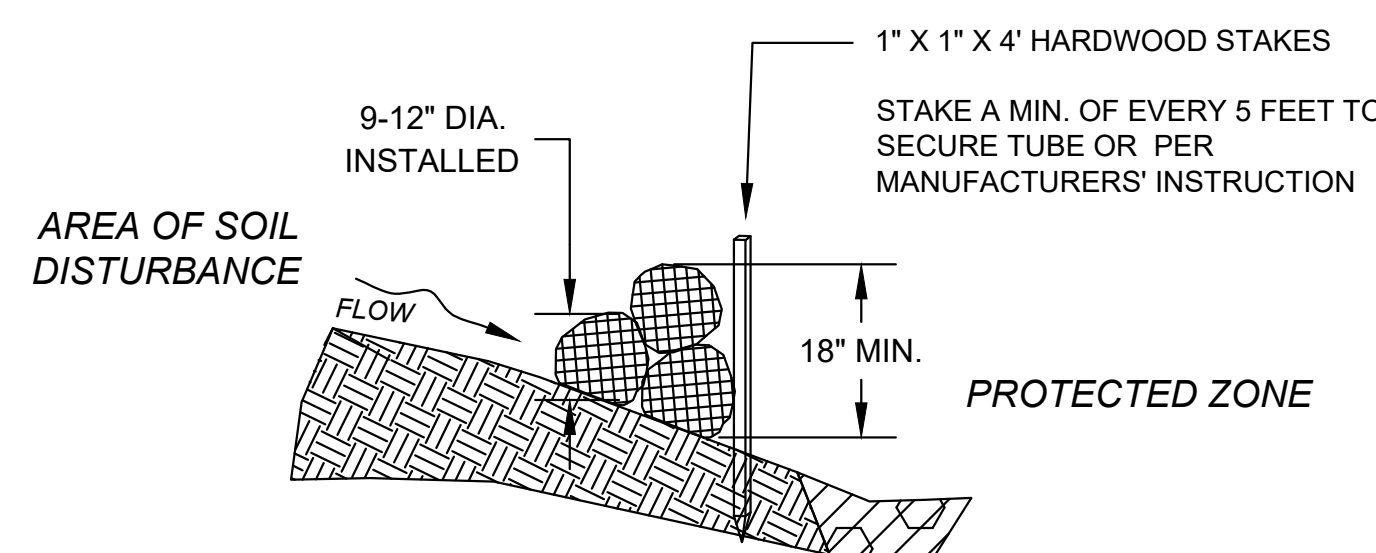
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SECTION

SEDIMENT BARRIER - COMPOST FILTER TUBE

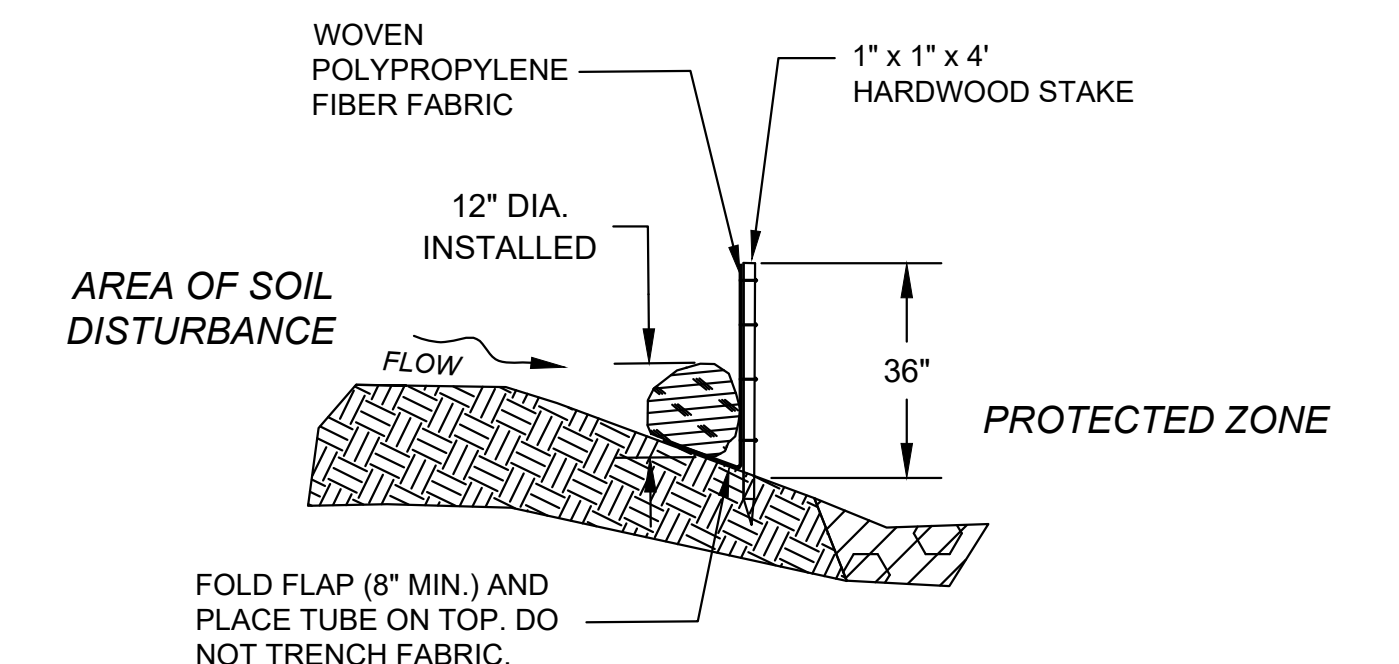
NOT TO SCALE



SECTION

COMPOST FILTER TUBES STACKED

NOT TO SCALE



SECTION

COMPOST FILTER TUBE & SILT FENCE

NOT TO SCALE

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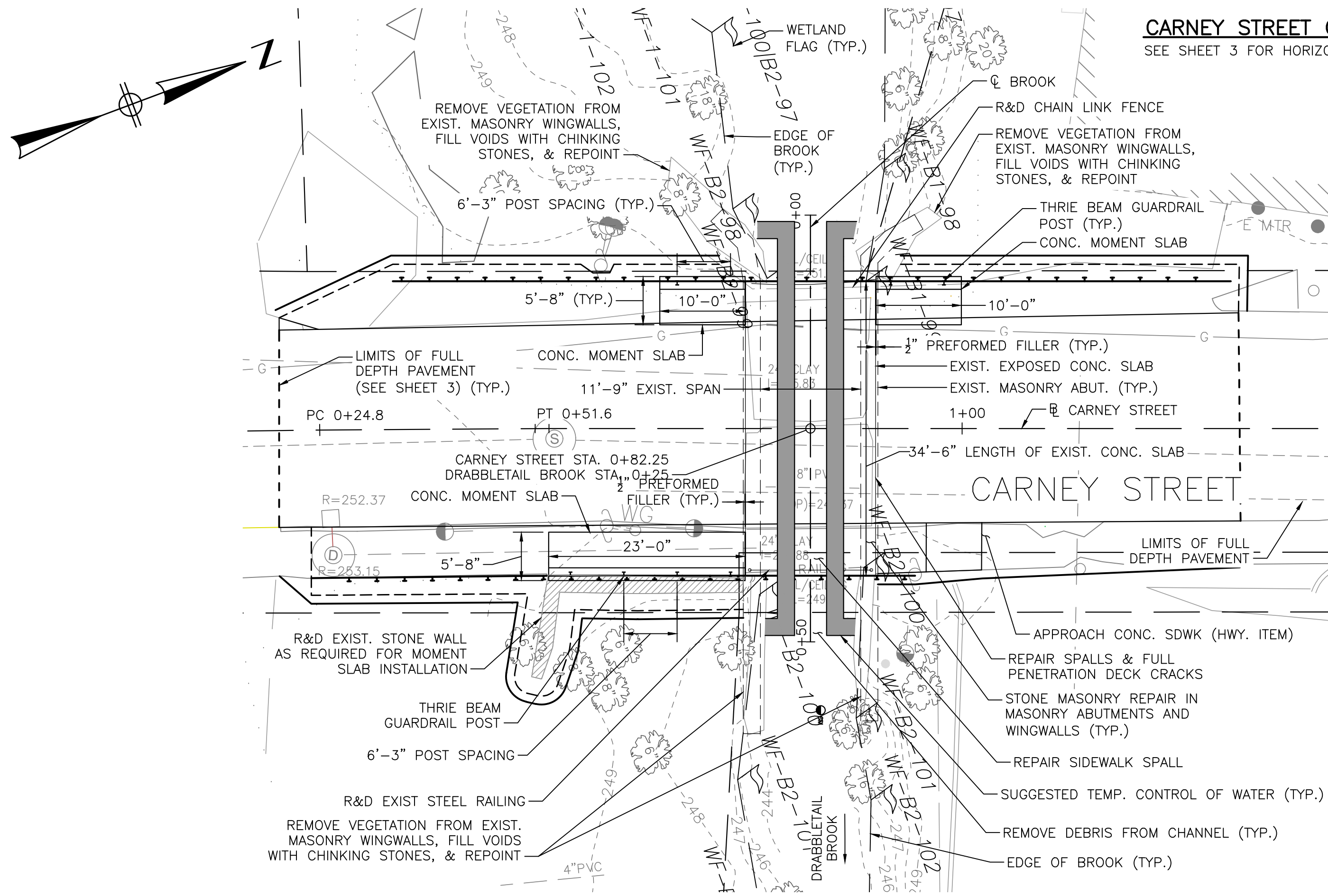
SCALE
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TITLE
**Carney Street Bridge Improvements
Uxbridge, Massachusetts
CONSTRUCTION DETAILS**

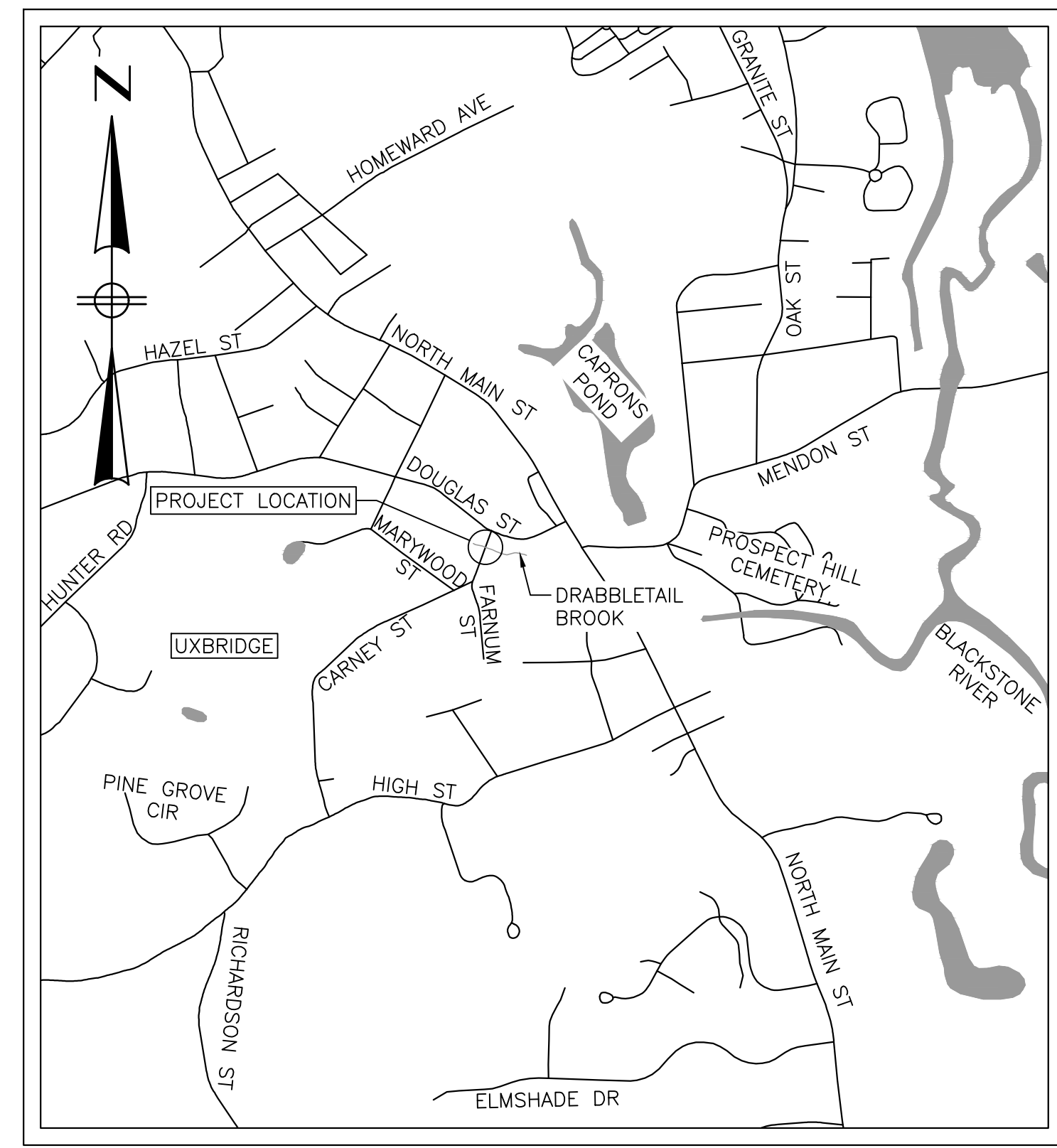
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ISSUE DATE
SHEET NO. 4

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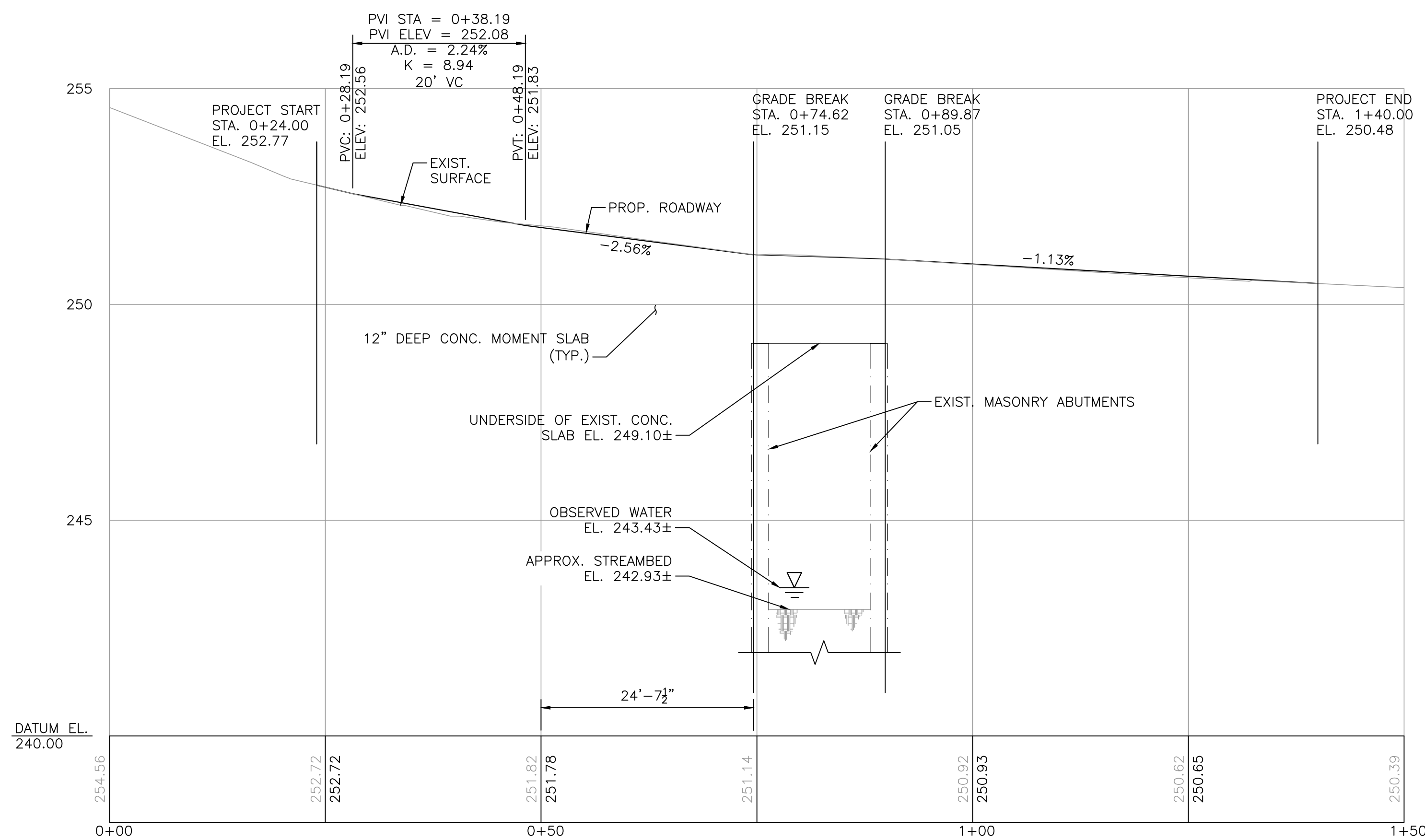
CARNEY STREET CURVE DATA
SEE SHEET 3 FOR HORIZONTAL CURVE DATA



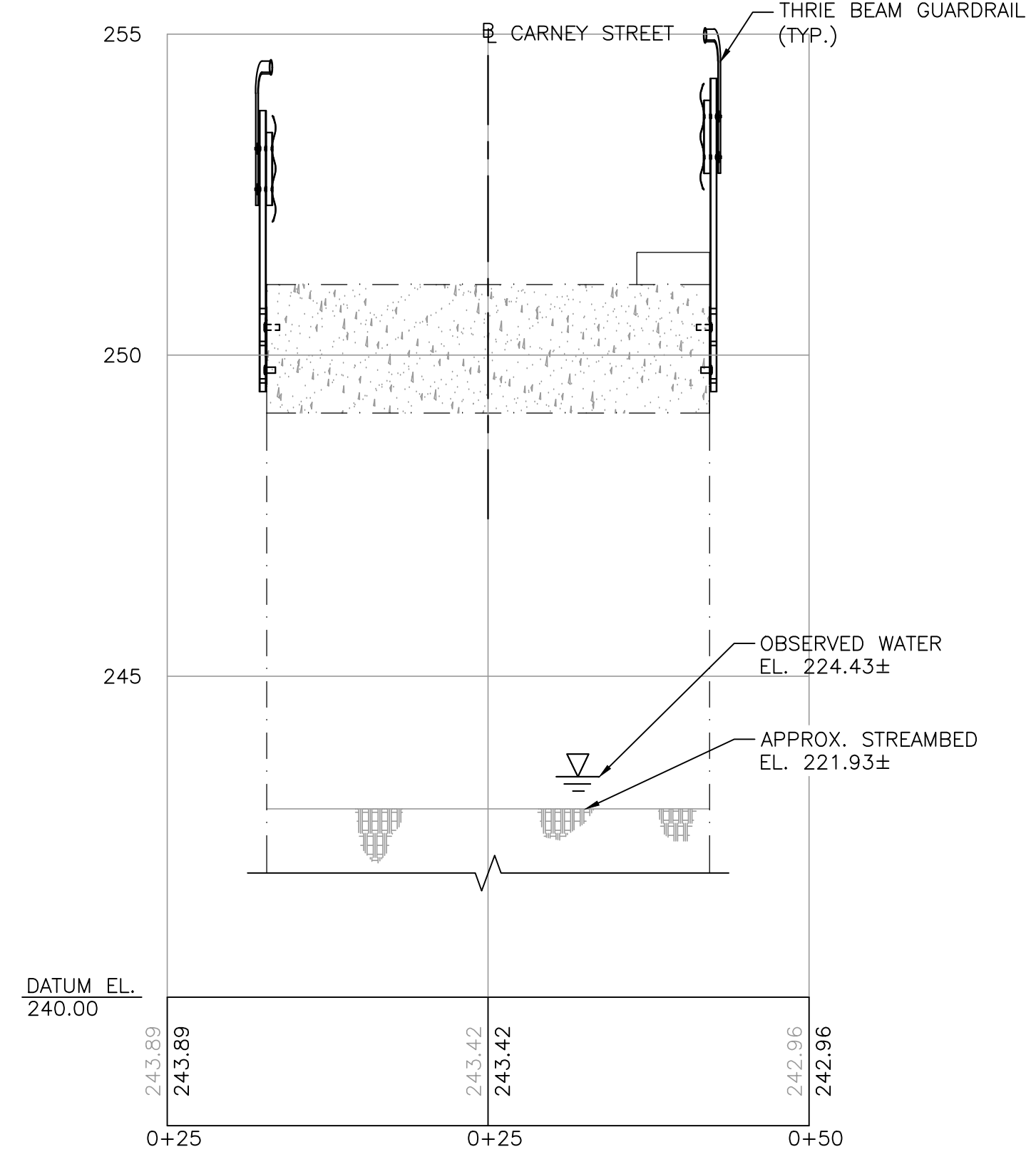
KEY PLAN
SCALE: 1/32" = 1'-0"



LOCUS
SCALE: 1" = 1000'



CARNEY STREET PROFILE
HORIZONTAL SCALE: 1/32" = 1'-0"
VERTICAL SCALE: 1/8" = 1'-0"



DRABBLETAIL BROOK PROFILE
HORIZONTAL SCALE: 1/32" = 1'-0"
VERTICAL SCALE: 1/8" = 1'-0"

GENERAL NOTES	
PROJECT FILE NO.:	NA
PROJECT DESCRIPTION:	PROPOSED BRIDGE PRESERVATION
BRIDGE DESIGN LOADING:	HL-93
SURVEY:	GOLDSMITH, PREST & RINGWALL, INC.
ELEVATION REFERENCE:	NAVD OF 1988

BENCHMARK: MAG-NAIL
LOCATION: UP
NORTHING: 34235490.76
EASTING: 7443495.33
ELEVATION: 252.16'

HYDRAULIC DESIGN DATA
DRAINAGE AREA: 0.60 SQUARE MILES
DESIGN FLOOD DISCHARGE: UNK CUBIC FEET PER SECOND
DESIGN FLOOD FREQUENCY: UNK YEARS
DESIGN FLOOD VELOCITY: UNK FEET PER SECOND
DESIGN FLOOD ELEVATION: UNK FEET, NAVD

BASE (100-YEAR) FLOOD DATA
BASE FLOOD DISCHARGE: UNK CUBIC FEET PER SECOND
BASE FLOOD ELEVATION: UNK 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: UNKNOWN
EVIDENCE OF SCOUR AND EROSION: UNKNOWN
DESIGN:
IN ACCORDANCE WITH THE 2020 9TH EDITION AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR HL-93 LOADING.
GENERAL:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING, COORDINATING, AND VERIFYING ALL DIMENSIONS.

THE CONTRACTOR SHALL COORDINATE ALL EXISTING UTILITY LOCATIONS.

ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE MASSDOT STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGES-2022 EDITION.

THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER WHEN, IN THE COURSE OF CONSTRUCTION, CONDITIONS ARE UNCOVERED WHICH ARE UNANTICIPATED OR OTHERWISE APPEAR TO PRESENT A DANGEROUS CONDITION.

FOR DIMENSIONS AND DETAILS NOT SHOWN, REFER TO HIGHWAY DRAWINGS.

NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988 IS USED THROUGHOUT.
FOUNDATIONS:

FOOTING SHALL BE FOUNDED ON UNDISTURBED INORGANIC SOIL. THE ELEVATION OF FOOTING SHALL BE SUCH THAT IT DOES NOT FALL WITHIN A ONE VERTICAL TO TWO HORIZONTAL SLOPE FROM THE BASE OF ANY ADJACENT FOOTING OR UTILITY.

BEARING SOIL SHALL BE INSPECTED BEFORE FOUNDATION CONSTRUCTION. NO FOOTING CONCRETE SHALL BE PLACED IN WATER OR ON FROZEN SUBGRADE MATERIAL.

NO BACKFILL SHALL BE PLACED AGAINST WALL OR MOMENT SLAB UNTIL THE CONCRETE HAS ATTAINED A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI.

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE TEMPORARY SUPPORT AND DEWATERING AS NECESSARY DURING EXCAVATION TO MAINTAIN THE INTEGRITY OF EXISTING STRUCTURES, ACTIVE UTILITIES, AND STREETS.

WALL FOOTINGS SHALL BE UNDERLAIN BY A MINIMUM ONE FOOT OF COMPACTED GRAVEL BORROW COMPACTED IN 6" LIFTS TO 95% OF THE MAXIMUM DRY DENSITY.
REINFORCEMENT:

ALL REINFORCING STEEL SHALL BE EPOXY COATED AND SHALL COFORM TO THE REQUIREMENTS OF AASHTO M 31 GRADE 60.
CONCRETE:

ALL CONCRETE SHALL BE 4000 PSI - 1 1/2" - 565 LB/CY HP.

4/5/2022 3:37 PM I:\BETA\IN\BDRR\UXBRIDGE\646 - UXBRIDGE - SMALL BRIDGE CONTRACT\DRAWING FILES\PLANSET\745_S\COVERSHEET1 - CARNEY.DWG (BETA STB BIV STB)

NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

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DESIGNED BY: TW	
CHECKED BY: TW	

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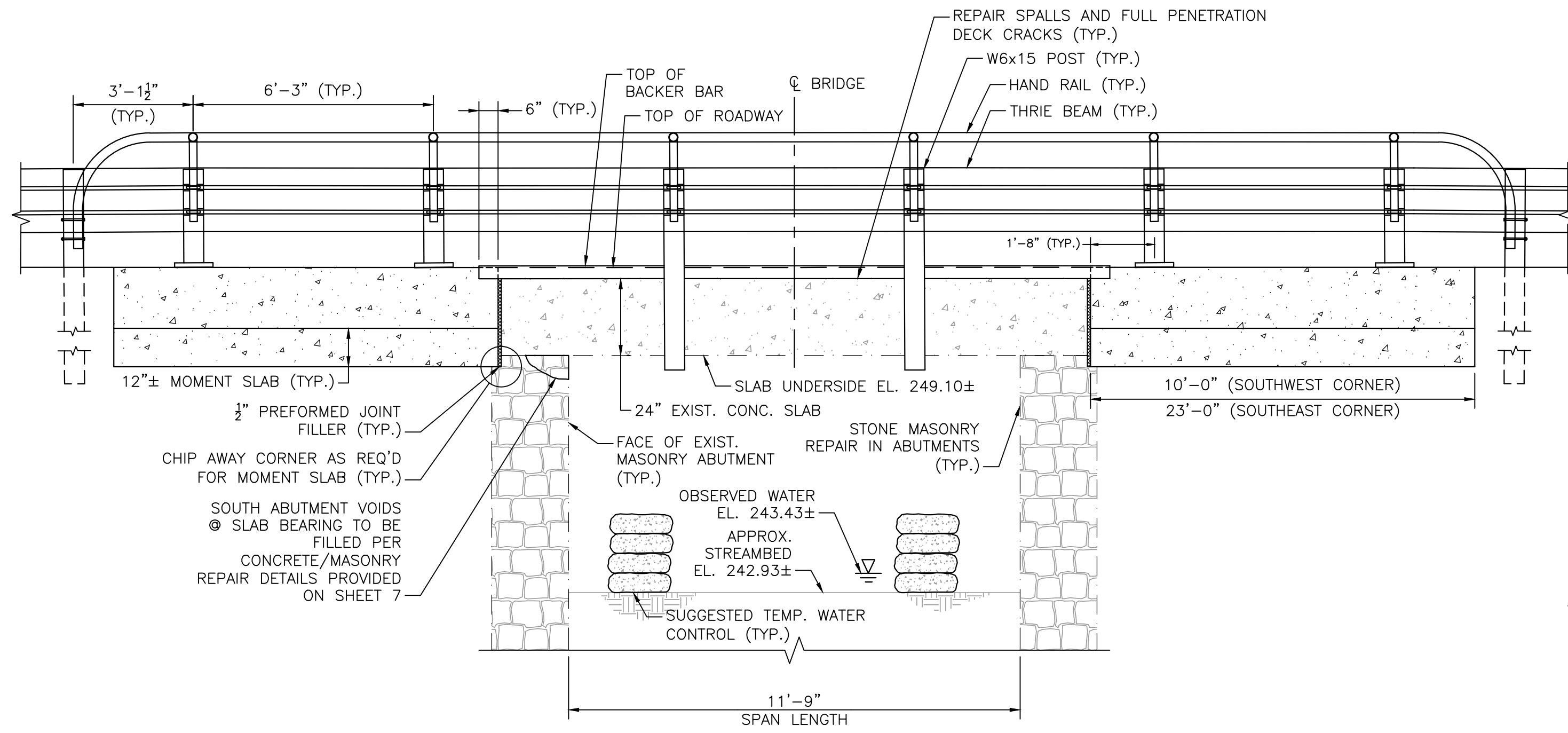
SUBCONSULTANT

SCALE
AS SHOWN

TITLE
**Carney Street Bridge Improvements
Uxbridge, Massachusetts
BRIDGE COVER SHEET**

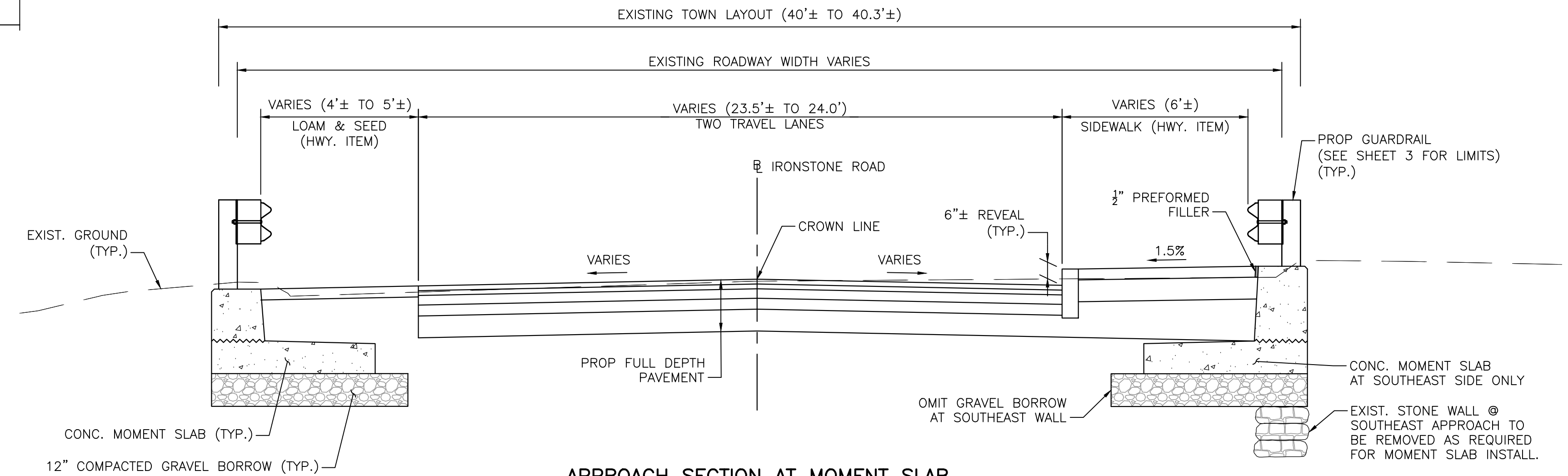
BETA JOB NO. 7545
ISSUE DATE
SHEET NO. 5
BRIDGE NO. 0-02-070

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WEST BRIDGE ELEVATION, LOOKING EAST

SCALE: $\frac{3}{8}'' = 1'-0''$

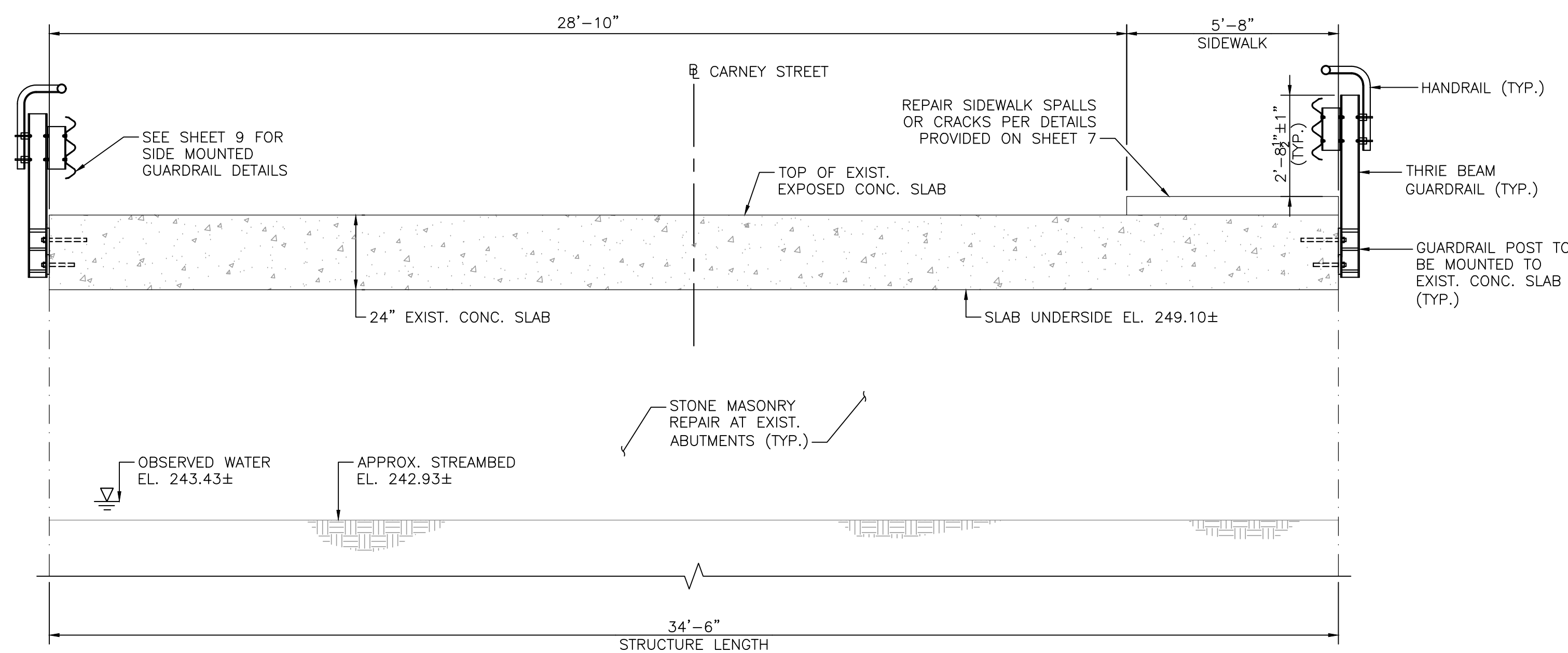


APPROACH SECTION AT MOMENT SLAB

NOT TO SCALE

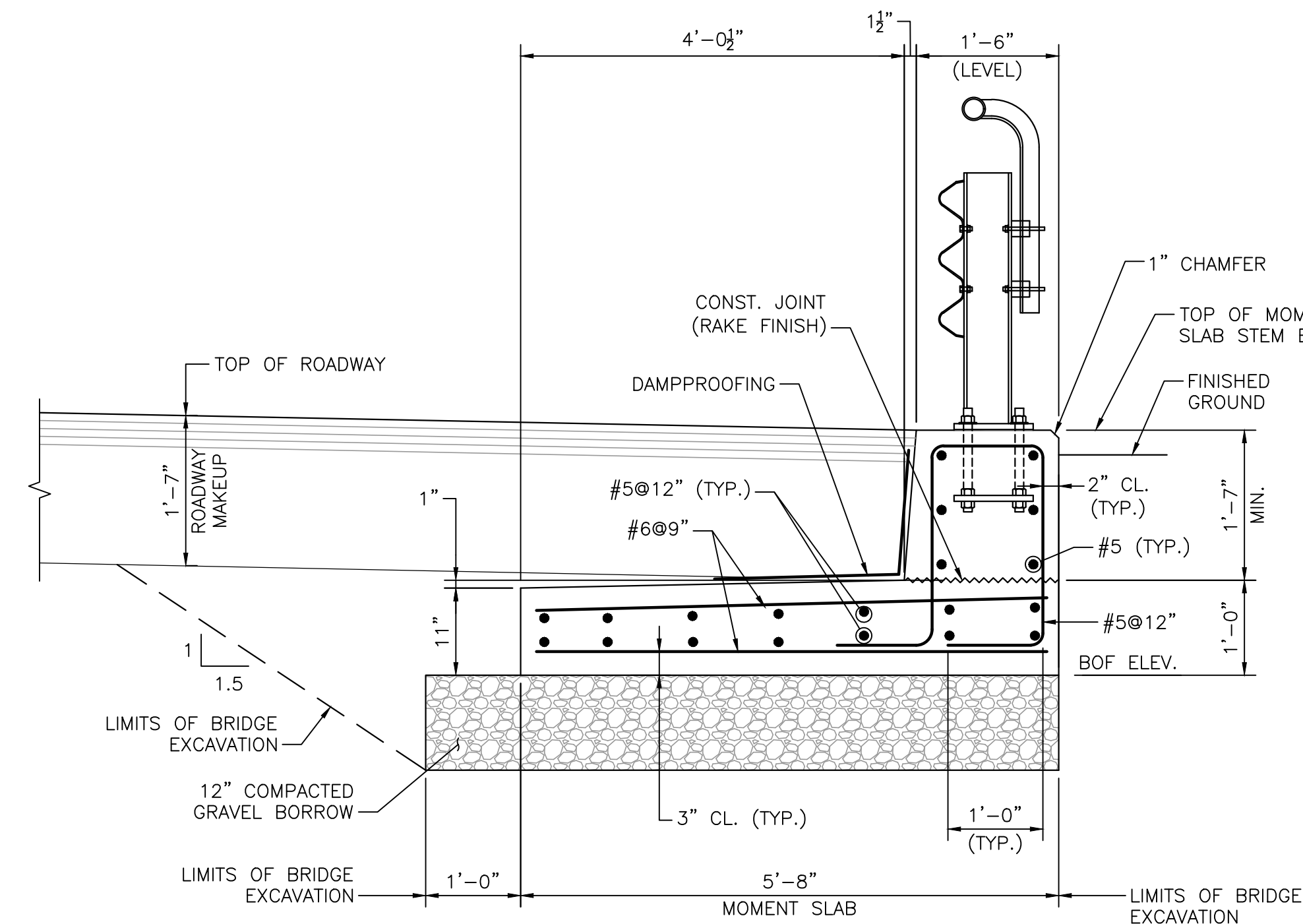
TOP OF MOMENT SLAB STEM ELEVATION		
LOCATION	STATION	ELEVATION
SOUTHWEST	0+64.6	251.41
	0+74.6	*
NORTHWEST	0+89.9	*
	0+99.9	250.94
SOUTHEAST	0+51.6	252.31
	0+74.6	**

* ELEVATION TO MATCH TOP OF EXISTING CONCRETE BRIDGE DECK
 ** ELEVATION TO MATCH TOP OF EXISTING BRIDGE SIDEWALK



TRANSVERSE BRIDGE SECTION

SCALE: $\frac{3}{8}'' = 1'-0''$



NOTES:

- ALL CONCRETE SHALL BE 4000 PSI, $1\frac{1}{2}$ IN, 565 CEMENT CONCRETE.
- MOMENT SLAB SECTION WITHOUT SIDEWALK SHOWN, SECTION WITH SIDEWALK SIMILAR.

MOMENT SLAB SECTION

SCALE: $\frac{3}{4}'' = 1'-0''$

4/5/2022 3:35 PM \\BETA\IN\BDR01\UXBRIDGE\7546 - UXBRIDGE - SMALL BRIDGE CONTRACT\DRAWING FILES\PLANSET\7546_S\STRUCTURAL\DETAILS.DWG (BETA SITE BW.STB)

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CHECKED BY:	TW

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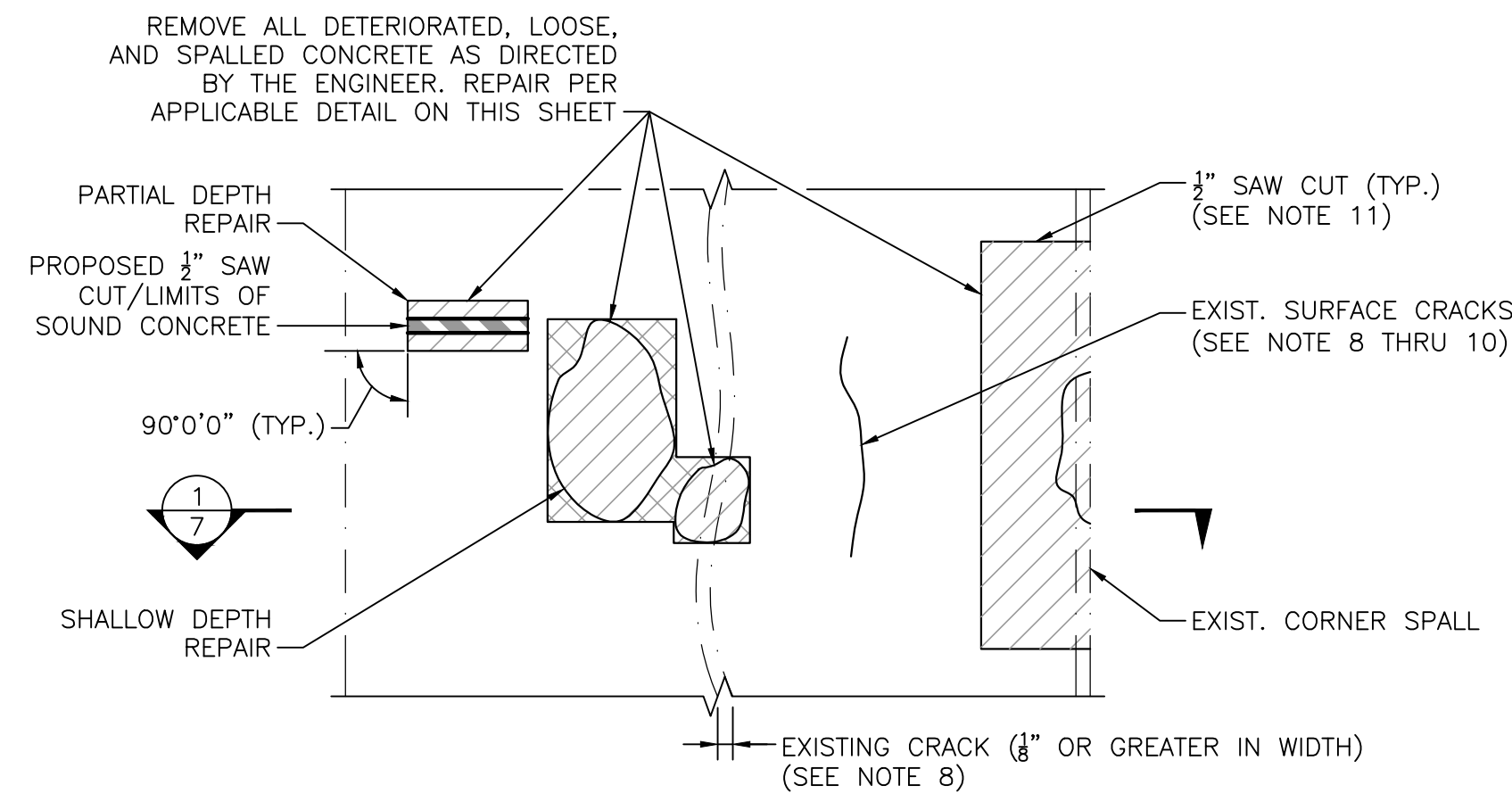


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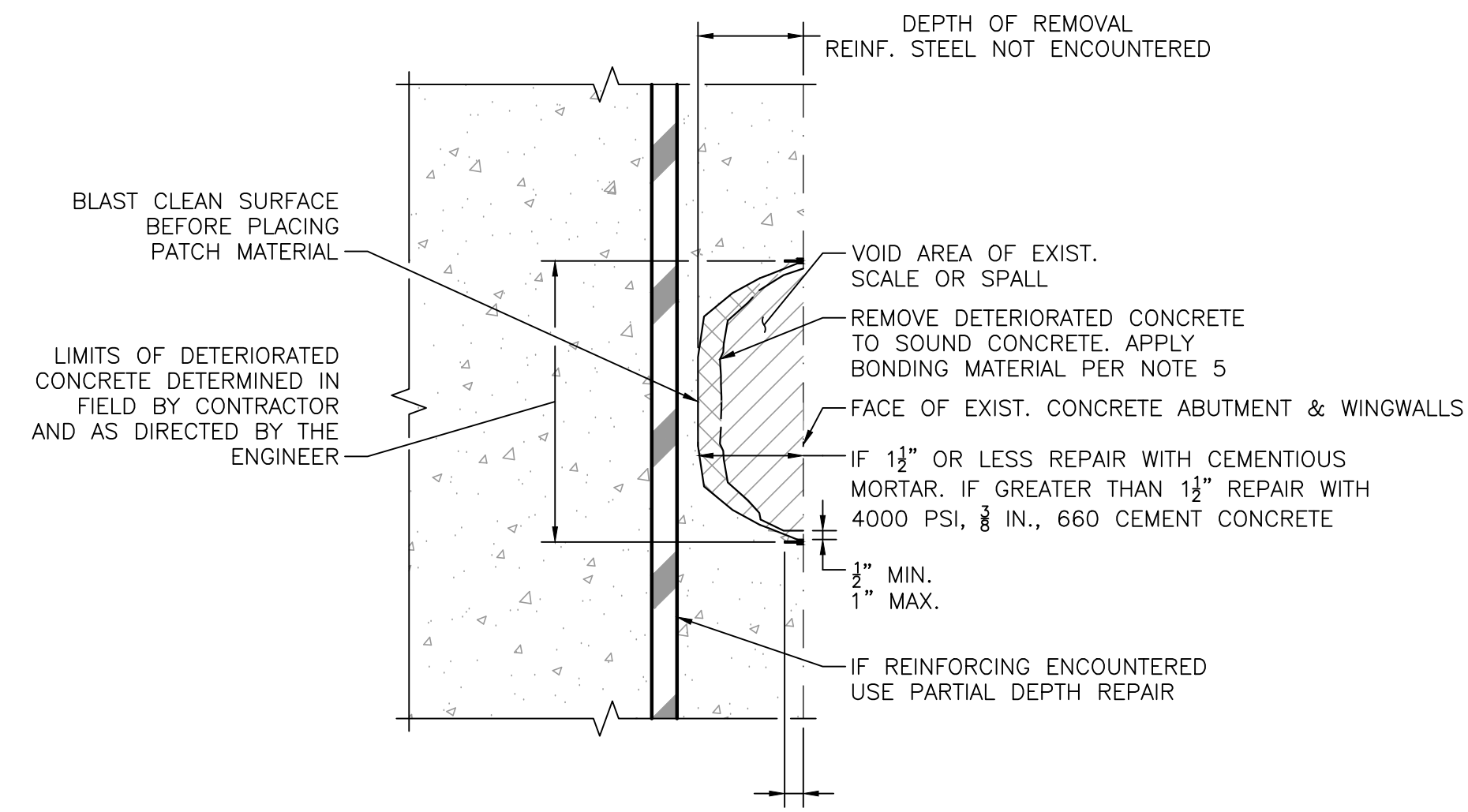
SCALE
AS SHOWN

TITLE
Carney Street Bridge Improvements
Uxbridge, Massachusetts
STRUCTURAL DETAILS

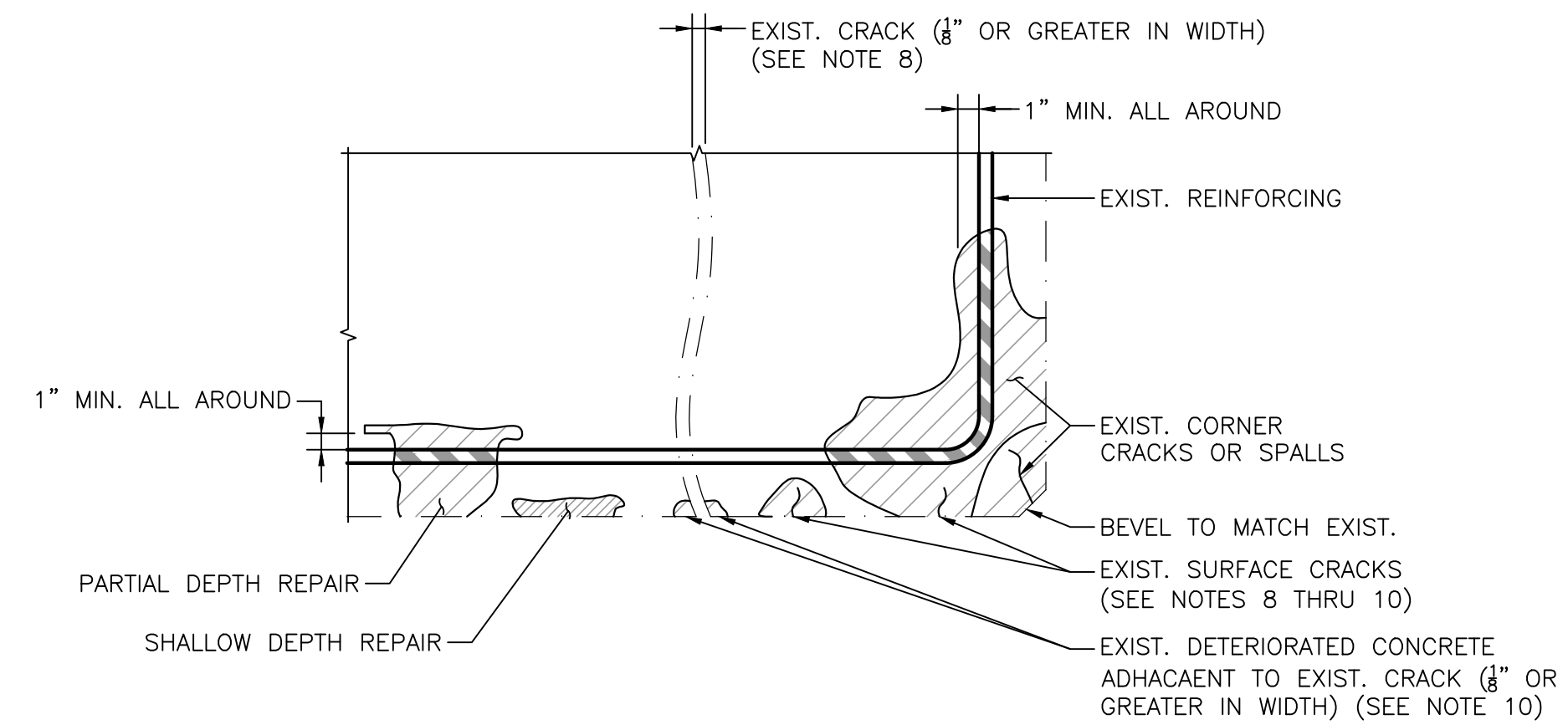
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ISSUE DATE
SHEET NO. 6



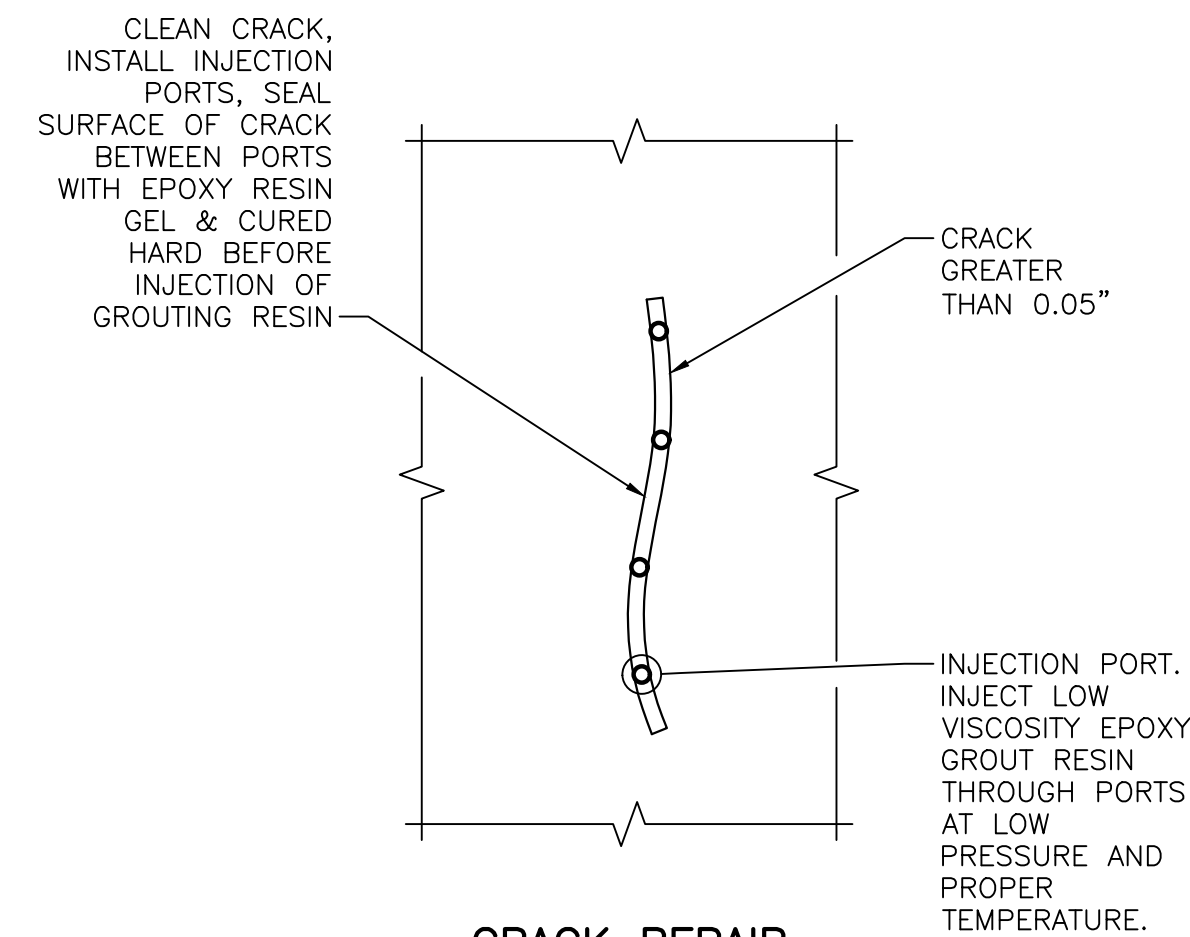
GENERAL ELEVATION
NOT TO SCALE



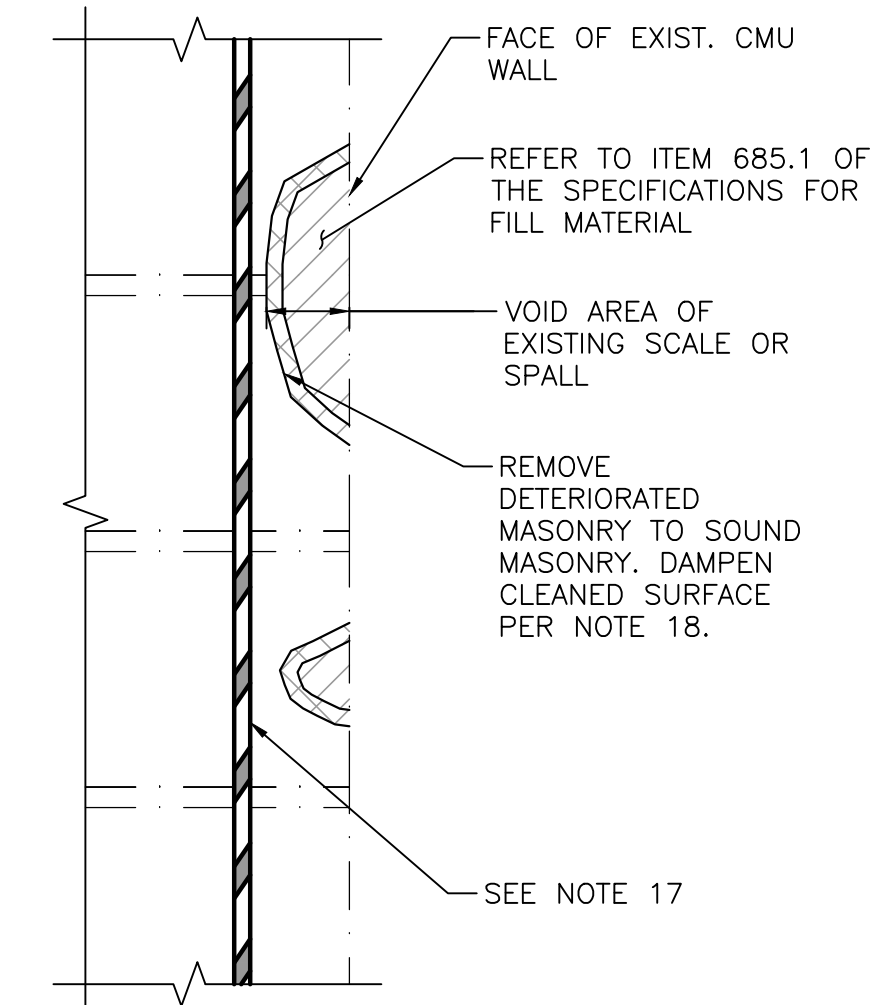
SHALLOW DEPTH REPAIR DETAIL
NOT TO SCALE



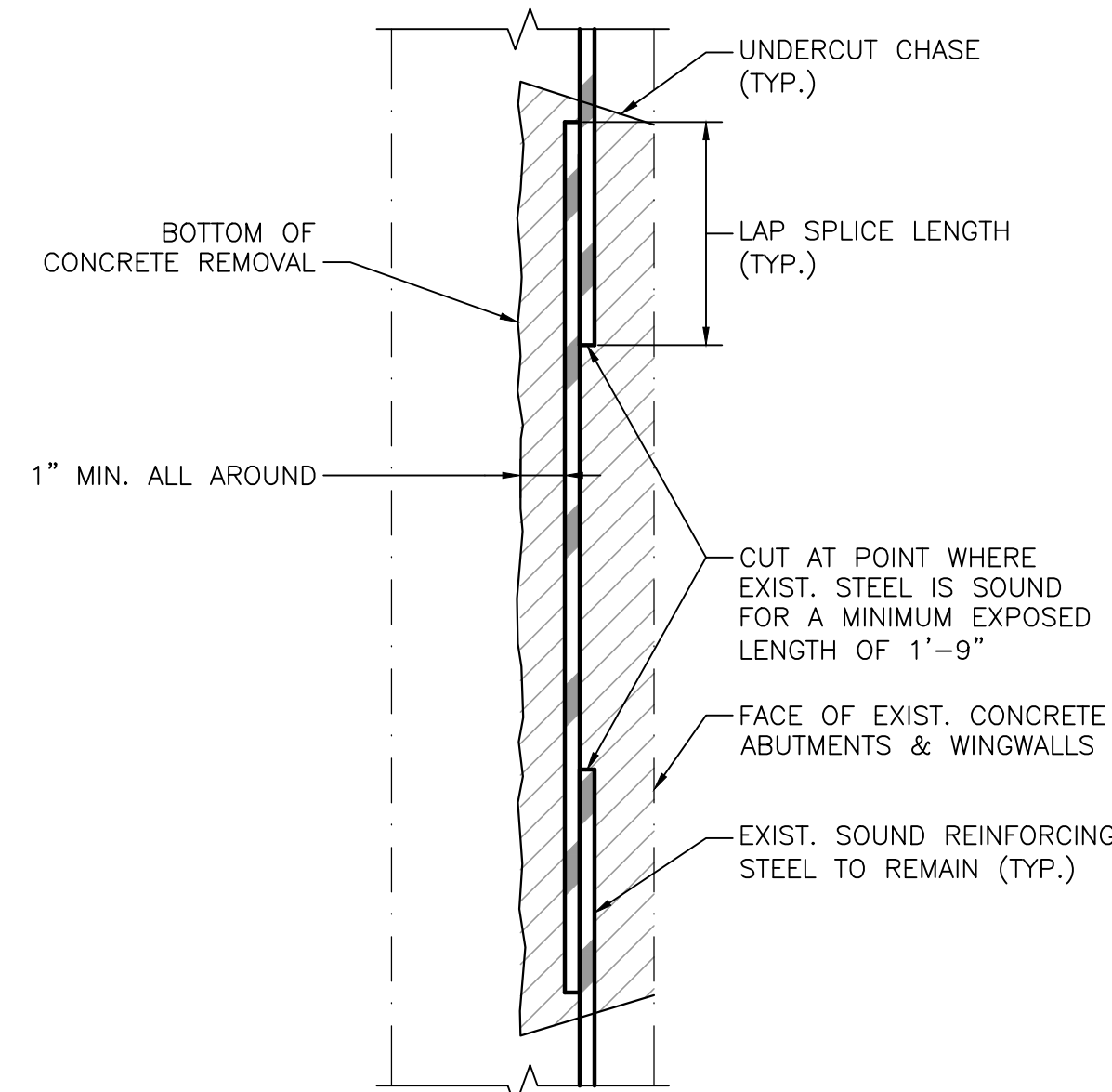
SECTION
NOT TO SCALE



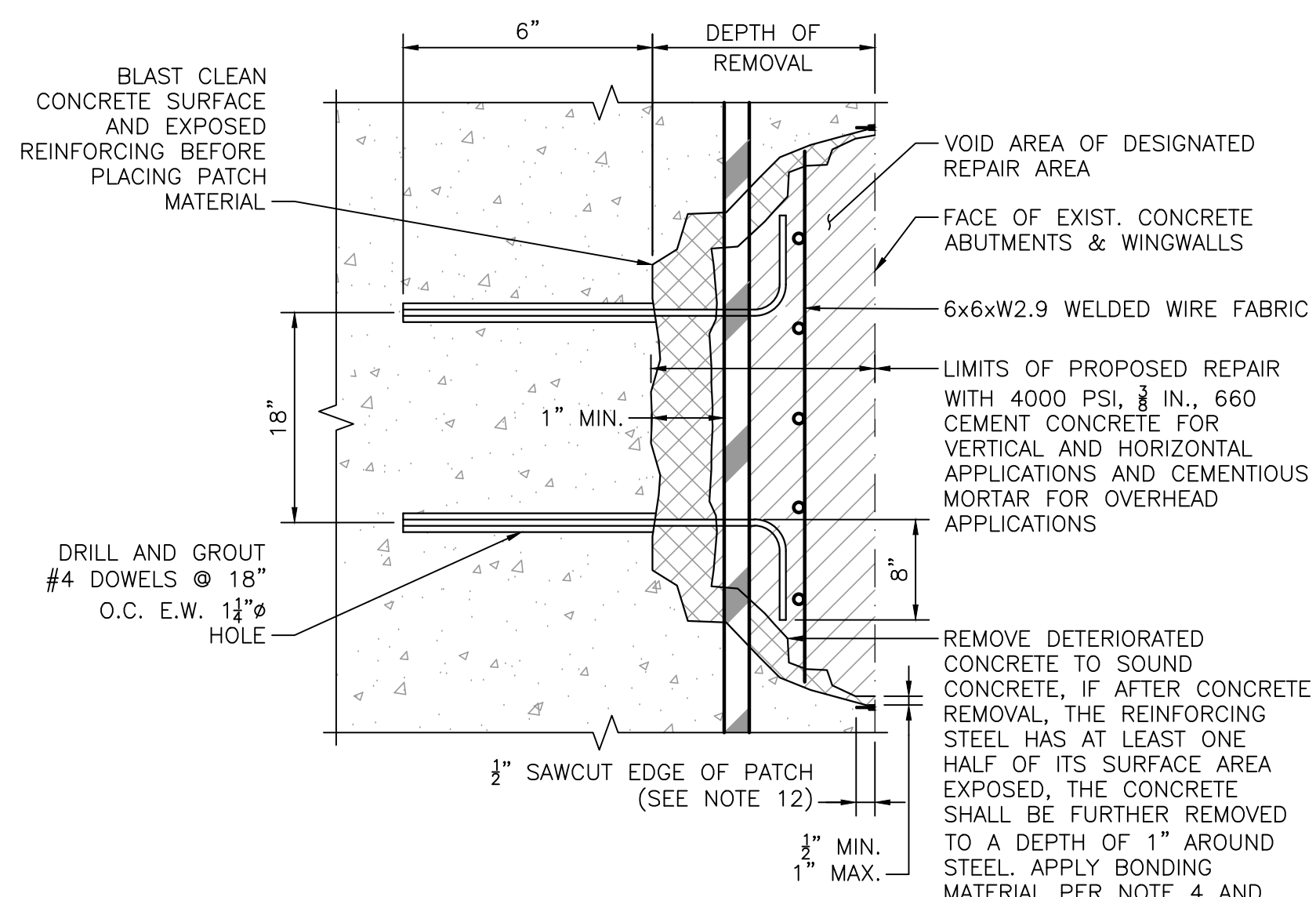
CRACK REPAIR
NOT TO SCALE



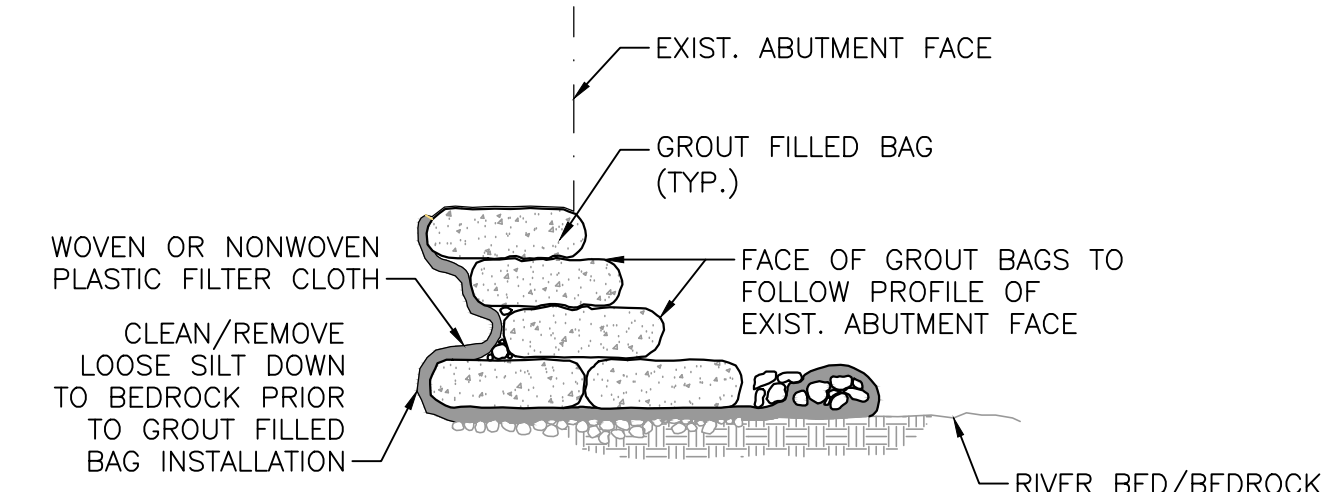
TYPICAL CMU WALL REPAIR
NOT TO SCALE



REINFORCING REPLACEMENT DETAIL
NOT TO SCALE



PARTIAL DEPTH REPAIR DETAIL
NOT TO SCALE



GROUT FILLED BAG REVETMENT DETAIL
NOT TO SCALE

LEGEND:

- DETERIORATED CONCRETE TO BE REMOVED.
- REINFORCING STEEL.
- ADDITIONAL CONCRETE TO BE REMOVED.

CONCRETE REPAIR NOTES:

1. THE ACTUAL LOCATIONS AND EXTENT OF VARIOUS TYPES OF CONCRETE REPAIR WILL BE DETERMINED IN THE FIELD. THE CONTRACTOR SHALL REPAIR ALL AREAS DETERMINED NECESSARY AS DIRECTED BY THE ENGINEER AFTER THE CONTRACTOR HAS SOUNDED AND MARKED OUT ALL REPAIR AREAS.
2. AREAS REQUIRING REPAIRS THAT ARE GREATER THAN 1 1/2" DEEP SHALL BE REPAIRED USING 4000 PSI, 3/8 IN., 660 CEMENT CONCRETE. AREAS LESS THAN 1 1/2" DEEP SHALL BE REPAIRED USING CEMENTITIOUS MORTAR FOR PATCHING.
3. IF DURING REMOVAL OF DETERIORATED CONCRETE, THE CONTRACTOR DAMAGES EXISTING REINFORCEMENT TO THE EXTENT REQUIRING REPLACEMENT, ANY ADDITIONAL CONCRETE REMOVAL, PATCHING MATERIAL, CLEANING EXISTING REINFORCING STEEL, AND FURNISHING AND INSTALLING REPLACEMENT REINFORCING STEEL SHALL BE AT THE CONTRACTOR'S EXPENSE, AND INSTALLED ACCORDING TO REINFORCING REPLACEMENT DETAIL ON THIS SHEET.
4. REINFORCEMENT, INCLUDING WELDED WIRE FABRIC, USED TO REPLACE EXISTING DETERIORATED REINFORCING STEEL (SECTION LOSS OF 15% OR MORE OF THE ORIGINAL CROSS SECTION, AS DETERMINED BY THE ENGINEER) SHALL BE EPOXY COATED. COST OF REPLACEMENT SHALL BE INCLUDED UNDER ITEM 910.1.
5. IMMEDIATELY PRIOR TO PLACING NEW CONCRETE OR MORTAR AGAINST EXISTING CONCRETE, CLEAN EXISTING SURFACES BY ABRASIVE BLASTING OR HIGH PRESSURE WATER BLASTING WITH WATER CONTAINING NO DETERGENTS OR BOND INHIBITING CHEMICALS AND APPLY APPROVED BONDING COMPOUND IMMEDIATELY PRIOR TO PLACING CONCRETE.
6. ALL EXISTING SURFACES THAT WILL HAVE NEW CONCRETE CAST AGAINST IT MUST BE ROUGHENED TO A MINIMUM AMPLITUDE OF 1/4 INCH.
7. CONCRETE REPAIR WORK INCLUDES REMOVING ALL DETERIORATED, LOOSE, SPALLED, POPCORNERED AND MAP CRACKED CONCRETE. CONCRETE WHICH HAS SPALLED OR OTHERWISE DETERIORATED ADJACENT TO SURFACE CRACK SHALL BE REPAIRED.
8. CRACKS THAT ARE .05" OR GREATER IN WIDTH SHALL BE REPAIRED BY EPOXY INJECTION CRACK REPAIR.
9. CRACKS THAT ARE LESS THAN .05" IN WIDTH SHALL NOT BE REPAIRED UNLESS DIRECTED BY THE ENGINEER.
10. WHERE PATCHING AND EPOXY INJECTION WORK ARE ADJACENT, EPOXY INJECTION SHALL BE PERFORMED BEFORE PATCHING.
11. ALL DETERIORATED AREAS SHALL BE DELINEATED BY A 1/2" SAWCUT. THE COST OF SAWCUTTING SHALL BE INCLUDED UNDER ITEM 127.12.
12. ALL EXPOSED STEEL SHALL BE THOROUGHLY BLAST CLEANED TO A WHITE METAL FINISH AND COATED WITH EPOXY IN ACCORDANCE WITH AASHTO M284 (ASTM D3963). BLAST CLEANING AND EPOXY SHALL BE INCLUDED IN THE RESPECTIVE CONCRETE REPAIR ITEM.
13. ALL SURFACES SHALL BE RUBBED TO PRODUCE A SMOOTH FINISH. NO ADDITIONAL MATERIAL SHALL BE ADDED TO CONCRETE.

MASONRY REPAIR NOTES:

14. ANY OBJECTIONABLE CRACK SHOULD BE ANALYZED TO DETERMINE THE CAUSE AND ANY PREVIOUS CORRECTIVE MEASURES TAKEN TO PREVENT OR ACCOMMODATE THE MOVEMENT BEFORE ADDITIONAL REPAIRS ARE MADE.
15. WHERE CRACKING IS CONFINED PRIMARILY TO MORTAR JOINTS IT CAN BE READILY REPAIRED BY CONVENTIONAL TUCKPOINTING METHODS.
16. REMOVE ALL SPALLED AND UNSOUND MASONRY FROM AREA TO BE REPAIRED. IF RUSTY REINFORCING STEEL IS PRESENT IT MUST BE ABRASIVE BLASTED TO REMOVE RUST.
17. IF REINFORCING STEEL IS ENCOUNTERED, REMOVE ENOUGH MATERIAL TO COMPLETELY EXPOSE REINFORCING STEEL. ALL EXPOSED STEEL SHALL BE THOROUGHLY BLAST CLEANED TO A WHITE METAL FINISH AND COATED WITH EPOXY IN ACCORDANCE WITH ASTM D3963. BLAST CLEANING AND EPOXY SHALL BE INCLUDED IN THE RESPECTIVE MASONRY REPAIR ITEM.
18. CLEAN SURFACE TO BE FREE OF ALL MATERIALS INCLUDING DUST, OIL, DIRT AND GREASE. DAMPEN WITH CLEAN WATER BEFORE PATCHING AND REMOVE STANDING WATER. REPAIR MORTAR SHALL BE TROWEL APPLIED TO DAMPENED SURFACE. AFTER INITIAL SET, THE MATERIAL SHALL BE TRIMMED AND SHAPED TO MATCH THE CONTOURS OF EXISTING PATCH AREA.
19. COST OF DRILLING AND GROUTING DOWELS SHALL BE CONSIDERED INCIDENTAL TO MASONRY REHABILITATION.
20. EXISTING MASONRY NEAR REPAIR LOCATIONS SHALL BE CLEANED WITH A HYDROCARBON SOLVENT TO REMOVE OIL AND GREASE. THE SURFACE SHALL THEN BE CLEANED WITH A TRISODIUM PHOSPHATE SOLUTION PRIOR TO APPLYING PAINT.

4/5/2022 3:35 PM \\BETA\IN\BDR01\UXBRIDGE\DRAWING FILES\PLANSET\7545_S\CONCRETE\REPAIR\DETAILS.DWG (BETA STB.BW.STB)

NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

DRAWN BY: BN
DESIGNED BY: TW
CHECKED BY: TW

REGISTERED PROFESSIONAL

PREPARED BY

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SUBCONSULTANT

SCALE
AS SHOWN

TITLE

Carney Street Bridge Improvements
Uxbridge, Massachusetts

CONCRETE & MASONRY REPAIR DETAILS

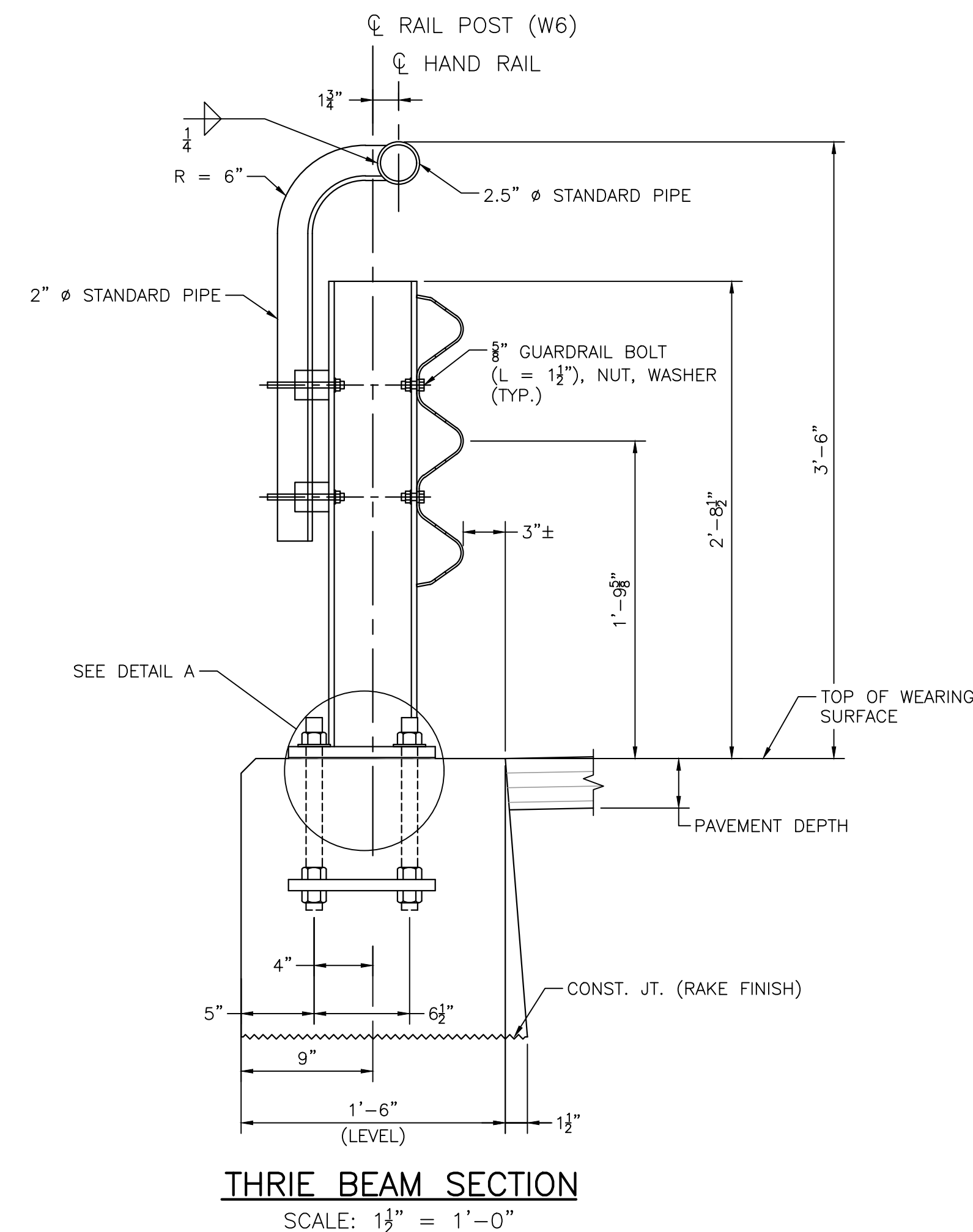
BRIDGE NO. 0-02-070

BETA JOB NO. 7545

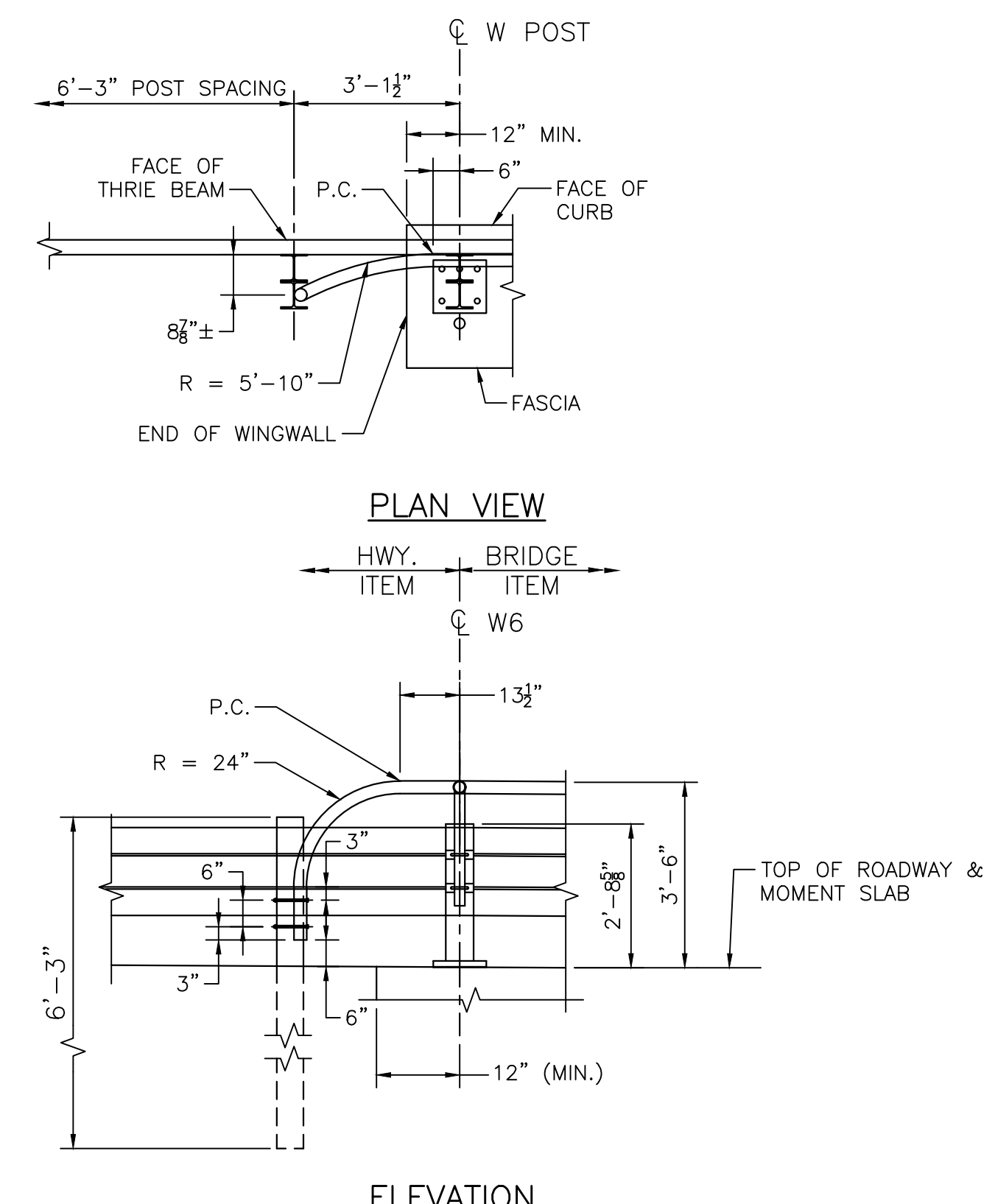
ISSUE DATE

SHEET NO. 7

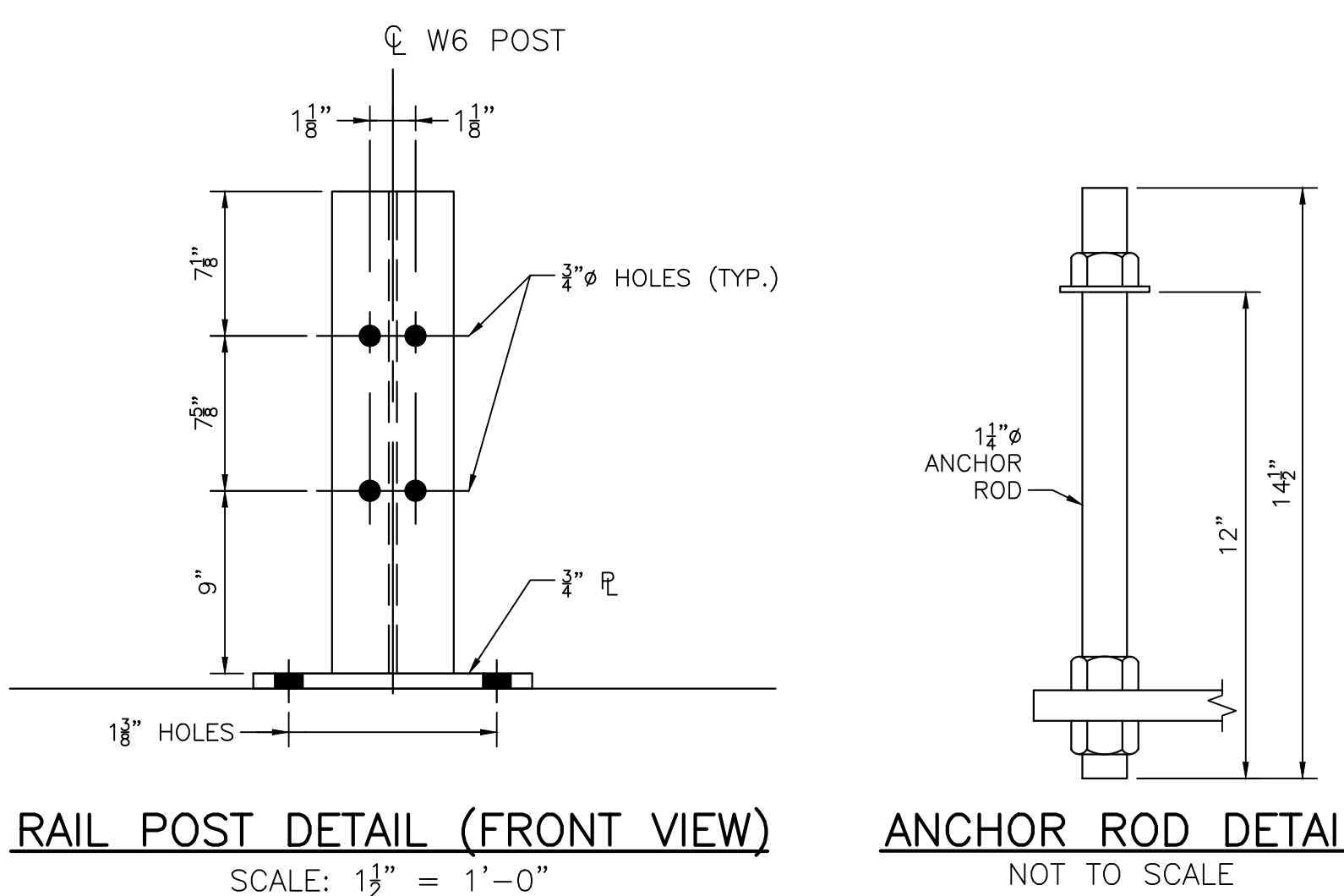
4/5/2022 3:30 PM I:\BETA\IN\BDR01\UXBRIDGE\SMALL BRIDGE CONTRACT\DRAWING FILES\PLANSET\7545_SRT\THRIEBEAMDETAILS(DWG) - CARNEY.DWG (BETA STB BW STB)



THRIE BEAM SECTION
SCALE: 1 1/2" = 1'-0"

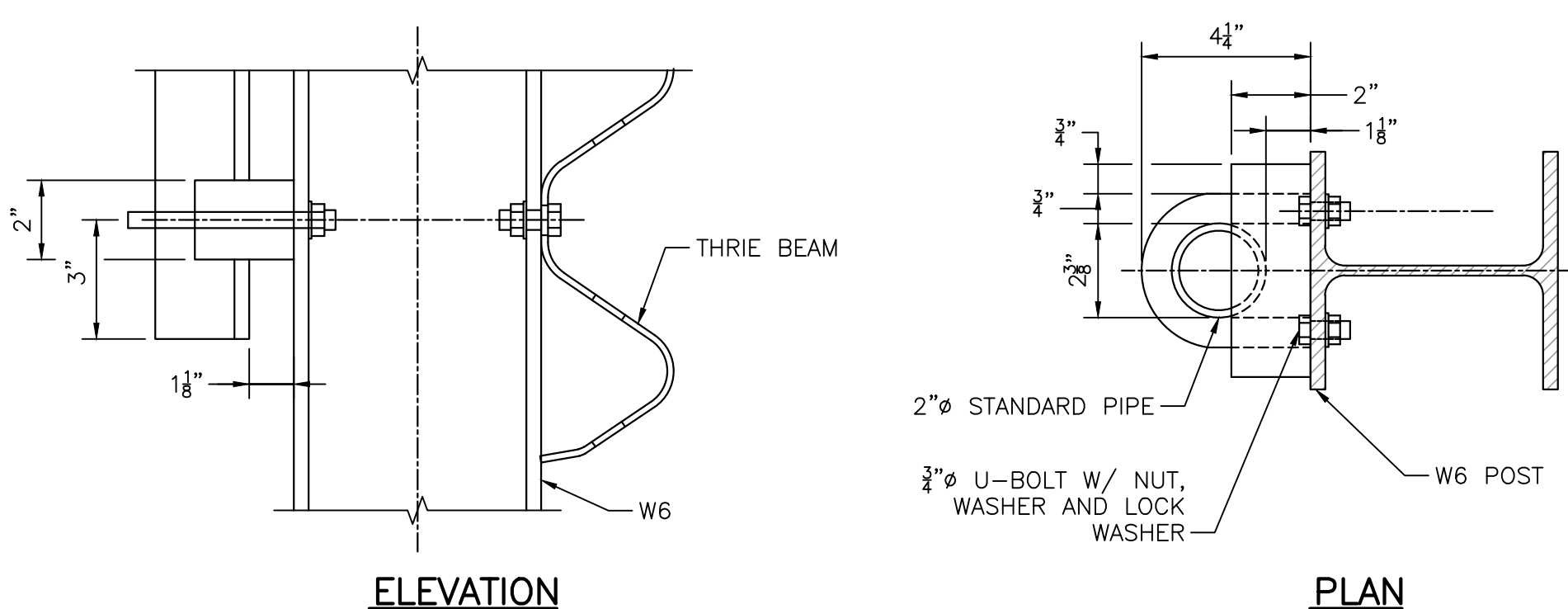


HAND RAIL END DETAIL
SCALE: 3/8" = 1'-0"

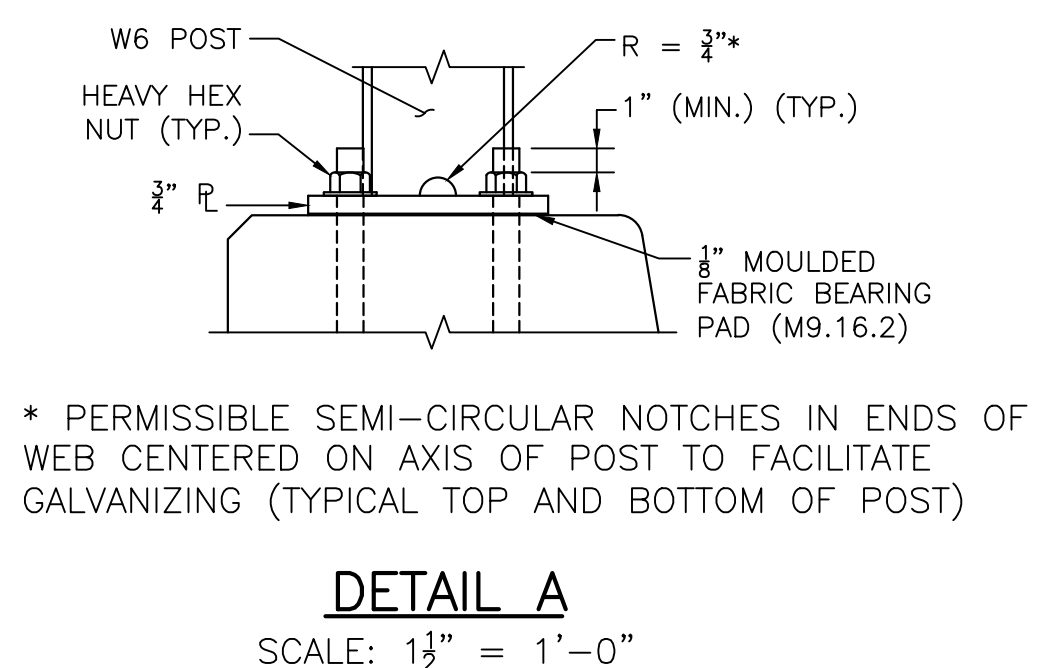


RAIL POST DETAIL (FRONT VIEW)
SCALE: 1 1/2" = 1'-0"

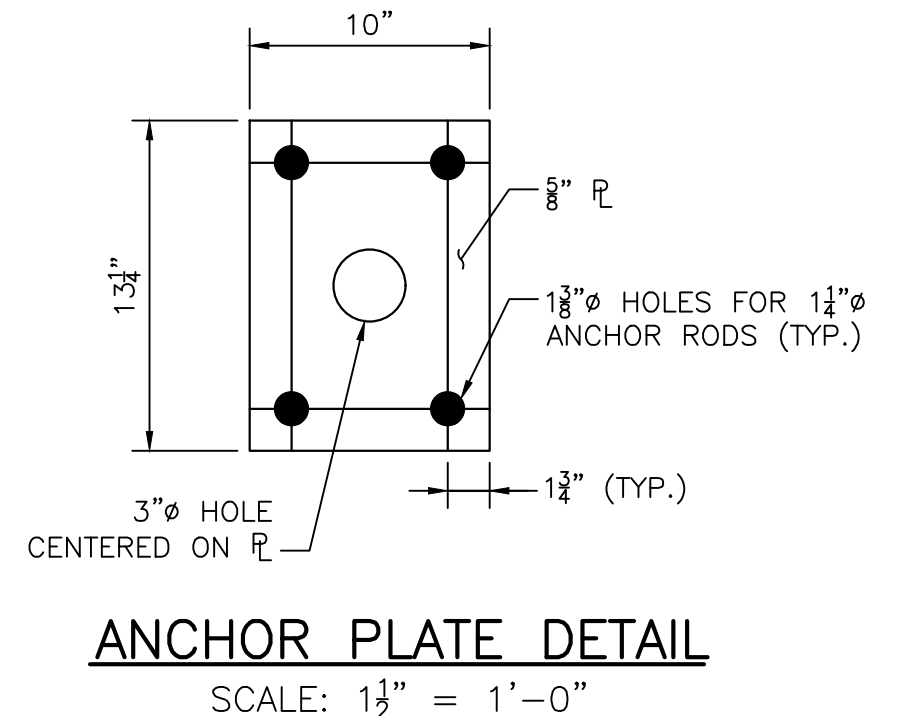
ANCHOR ROD DETAIL
NOT TO SCALE



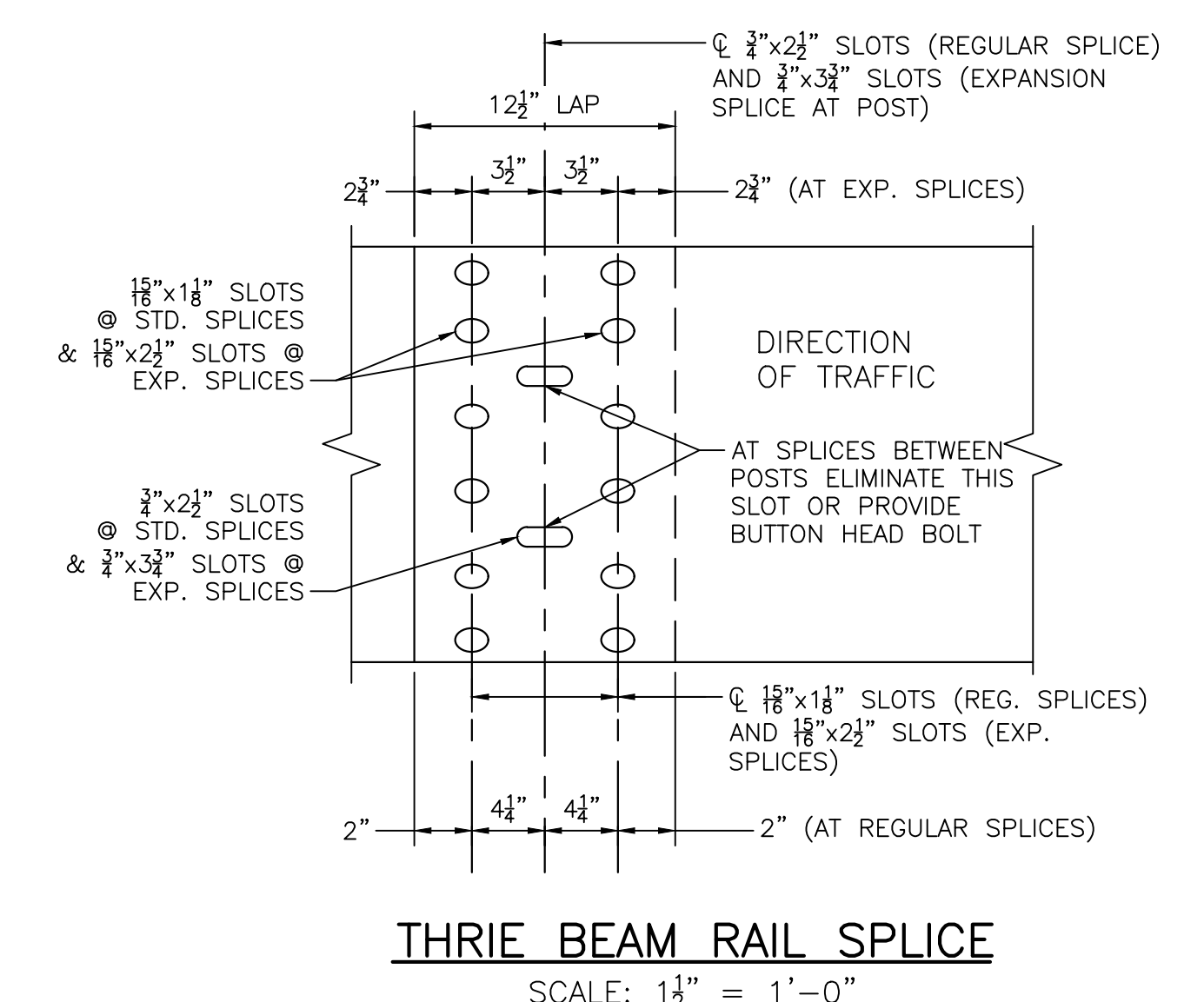
SADDLE DETAILS
SCALE: 3" = 1'-0"



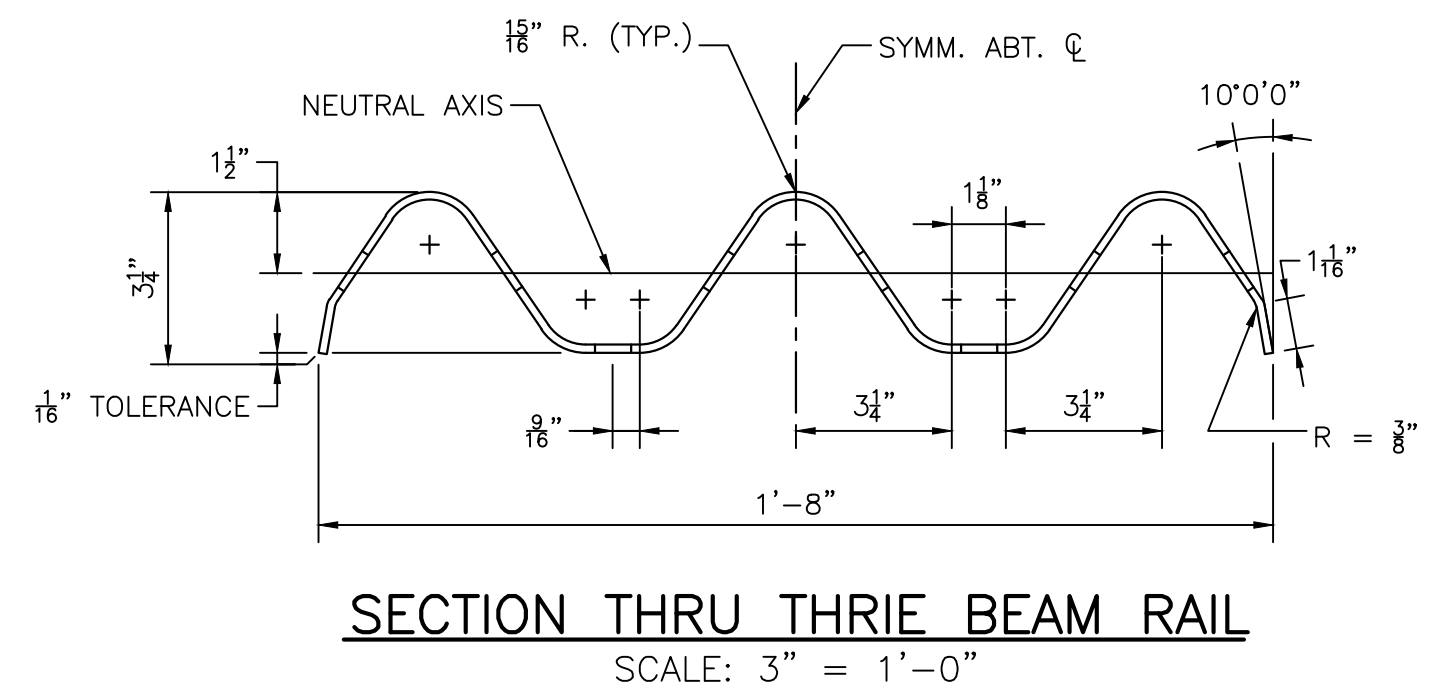
DETAIL A
SCALE: 1 1/2" = 1'-0"



ANCHOR PLATE DETAIL
SCALE: 1 1/2" = 1'-0"




THRIE BEAM RAIL SPLICE
SCALE: 1 1/2" = 1'-0"

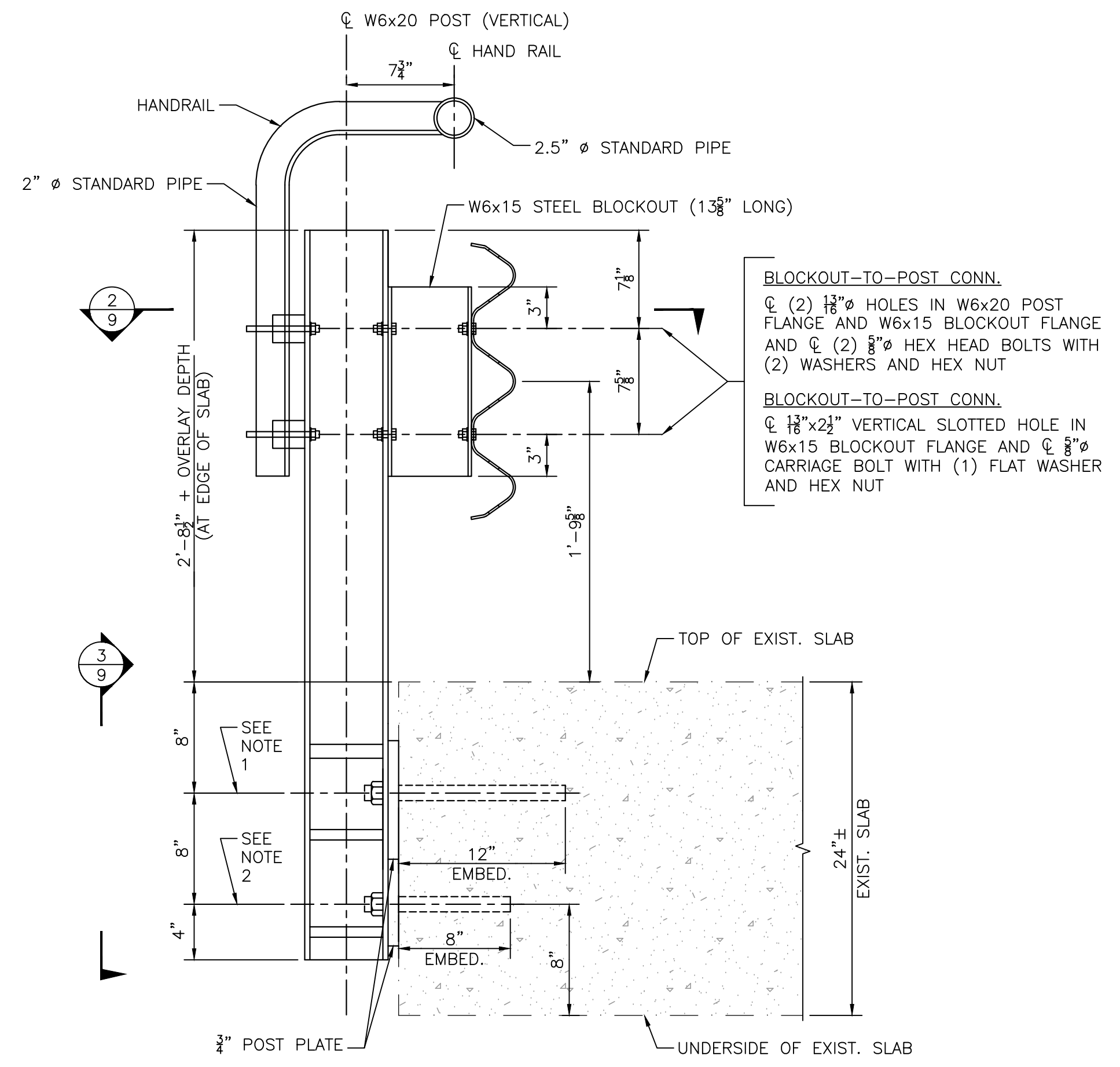


SECTION THRU THRIE BEAM RAIL
SCALE: 3" = 1'-0"

- NOTES:**
- ALL STEEL CONNECTING BOLTS AND FASTENERS FOR POSTS AND RAILING SHALL CONFORM TO ASTM A307 AND SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M232. ALL ANCHOR RODS SHALL CONFORM TO F1554 GRADE 105 AND SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M232.
 - RAIL POSTS AND ANCHOR PLATES SHALL BE SEATED ON MOULDED FABRIC BEARING PADS MEETING M9.16.2 AND HAVING THE SAME DIMENSIONS AS THE PLATE. ADDITIONAL PADS OR HALF PADS MAY BE USED IN SHIMMING FOR ALIGNMENT. POST HEIGHTS SHOWN WILL INCREASE BY THE THICKNESS OF THE PAD.
 - RAIL POSTS SHALL BE SET PERPENDICULAR TO ROADWAY PROFILE GRADE AND VERTICALLY IN CROSS SECTION, EXCEPT THAT THE RAIL POSTS SHALL BE ALIGNED BY THE USE OF SHIMS SO THAT IN THE FINAL ADJUSTMENT NO PART SHALL DEVIATE MORE THAN ONE INCH FROM TRUE HORIZONTAL ALIGNMENT. THE SHIMS SHALL BE 3"x1 1/2" AND PLACED BETWEEN THE POST AND THE THRIE BEAM RAIL. THE THICKNESS OF THE SHIMS SHALL BE DETERMINED BY THE CONTRACTOR AND VERIFIED BY THE ENGINEER BEFORE ORDERING MATERIAL FOR THIS WORK.
 - MINIMUM LENGTH OF THE THRIE BEAM SECTIONS IS EQUAL TO ONE POST SPACE.
 - THRIE BEAM GUARD RAIL STEEL SHALL BE GALVANIZED AND CONFORM TO THE AASHTO M180, CLASS B, TYPE IV AND SHALL BE 10 GAGE THICK. USE OF 12 GAGE THICK THRIE BEAM IS EXPRESSLY FORBIDDEN.
 - POSTS, ANCHOR PLATES, BASE PLATES SHALL BE FABRICATED FROM STEEL CONFORMING TO AASHTO M270M GR. 250 STEEL AND SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M111.
 - SPECIAL DRILLING OF THE THRIE BEAM MAY BE REQUIRED AT THE SPLICES. (ALL DRILLING DETAILS ARE TO BE SHOWN ON THE SHOP DRAWINGS.)
 - HAND RAIL STEEL SHALL CONFORM TO ASTM A53 GR. B OR A501 AND SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M111.
 - PLACE A REFLECTORIZED WASHER IN THE UPPER VALLEY OF THRIE BEAM EVERY THIRD POST.
 - HAND RAIL SHALL BE SPLICED OVER JOINTS IN COPING.

DRAWN BY: BN				REGISTERED PROFESSIONAL	PREPARED BY	SUBCONSULTANT	SCALE AS SHOWN	TITLE Carney Street Bridge Improvements Uxbridge, Massachusetts THRIE BEAM DETAILS (1 OF 2)	BETA JOB NO. 7545
DESIGNED BY: TW				 www.BETA-Inc.com					ISSUE DATE
CHECKED BY: TW									SHEET NO. 8
NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS					
BRIDGE NO. 0-02-070									

4/5/2022 3:30 PM \\BETA\IN\BDR01\UXBRIDGE\646 - UXBRIDGE - SMALL BRIDGE CONTRACT\DRAWING FILES\PLANSET\7545 - SR\THRIEBEAM\DETAILS\02-02-07-2 - CARNEY.DWG (BETA STB BW STB)

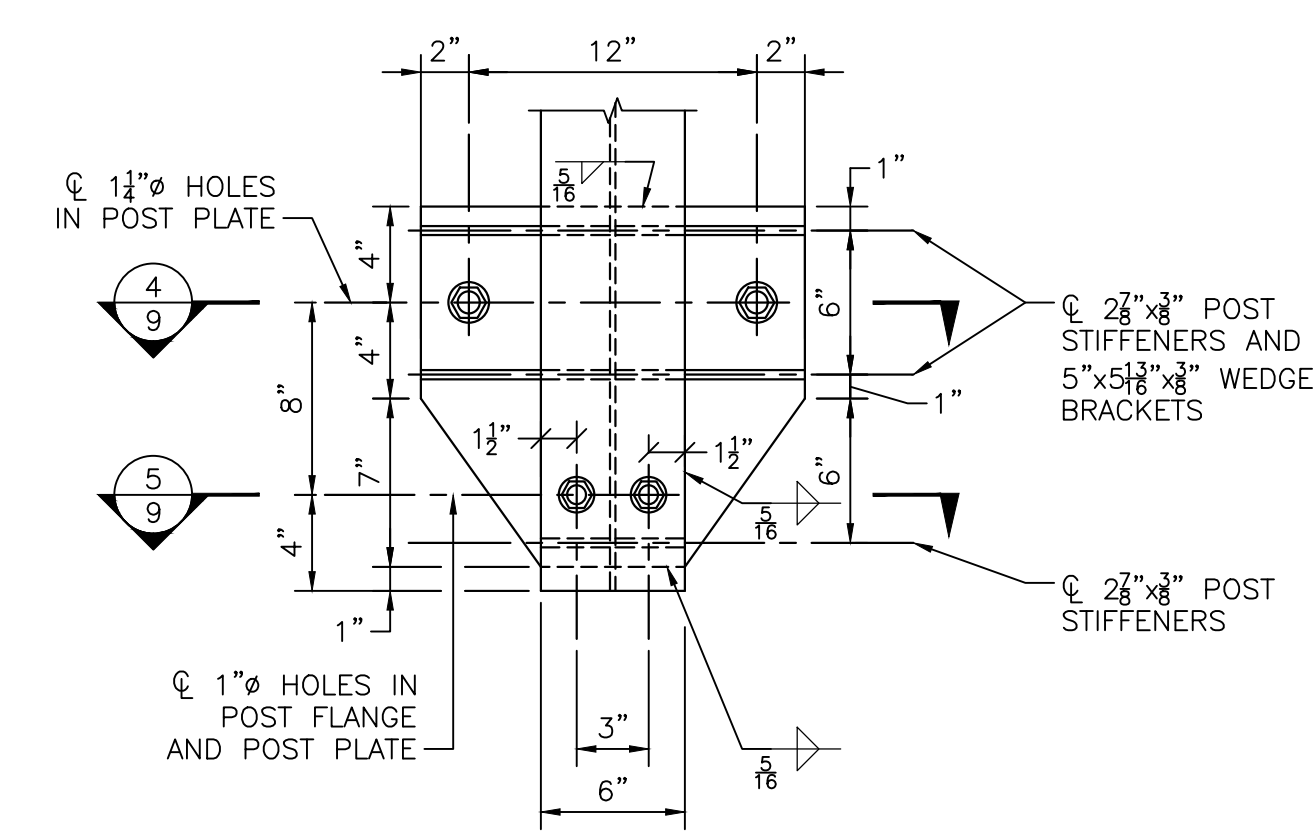


- NOTES:**
1. \varnothing TWO RESIN ANCHOR SYSTEM EACH WITH A MINIMUM ULTIMATE PULLOUT STRENGTH OF 72 KIP AND EACH TO INCLUDE:

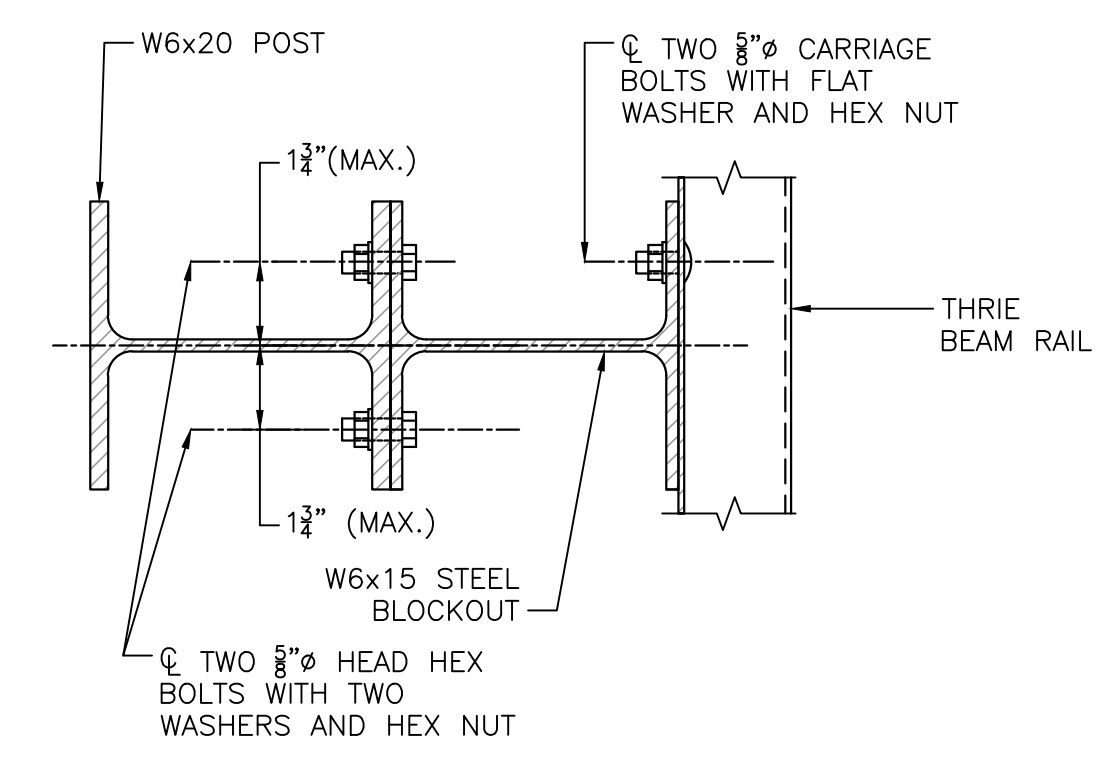
 - $1\frac{1}{8}$ " (MIN.) DRILLED HOLE IN SLAB OR AS RECOMMENDED BY MANUFACTURER
 - $1\frac{1}{4}$ " HOLE IN POST PLATE AND INSIDE POST FLANGE
 - $1\frac{1}{8}$ " ASTM A449 TYPE 1 THREADED ROD SNUG TIGHT AND EMBEDDED 12" IN SLAB
 - HEX NUT AND $2\frac{1}{2}$ " HARDENED LOCKING WASHER
 2. \varnothing TWO RESIN ANCHOR SYSTEM EACH WITH A MINIMUM ULTIMATE PULLOUT STRENGTH OF 20.4 KIP AND EACH TO INCLUDE:

 - $\frac{3}{8}$ " (MIN.) DRILLED HOLE IN SLAB OR AS RECOMMENDED BY MANUFACTURER
 - $1\frac{1}{8}$ " HOLE IN POST PLATE AND INSIDE POST FLANGE
 - $\frac{3}{8}$ " ASTM A449 TYPE 1 THREADED ROD SNUG TIGHT AND EMBEDDED 8" IN SLAB
 - HEX NUT AND HARDENED LOCKING WASHER

SECTION AT RAIL POST
SCALE: $1\frac{1}{2}$ " = 1'-0"

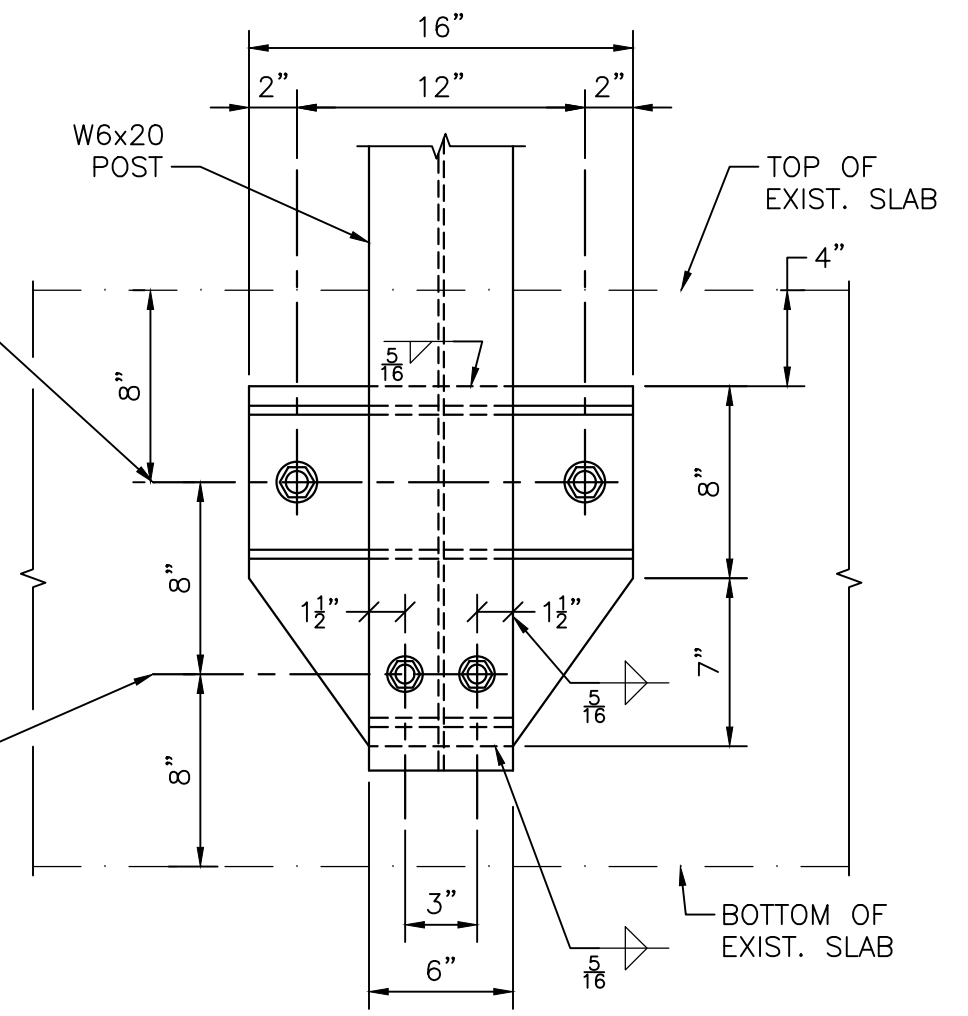


POST PLATE DETAIL
SCALE: $1\frac{1}{2}$ " = 1'-0"

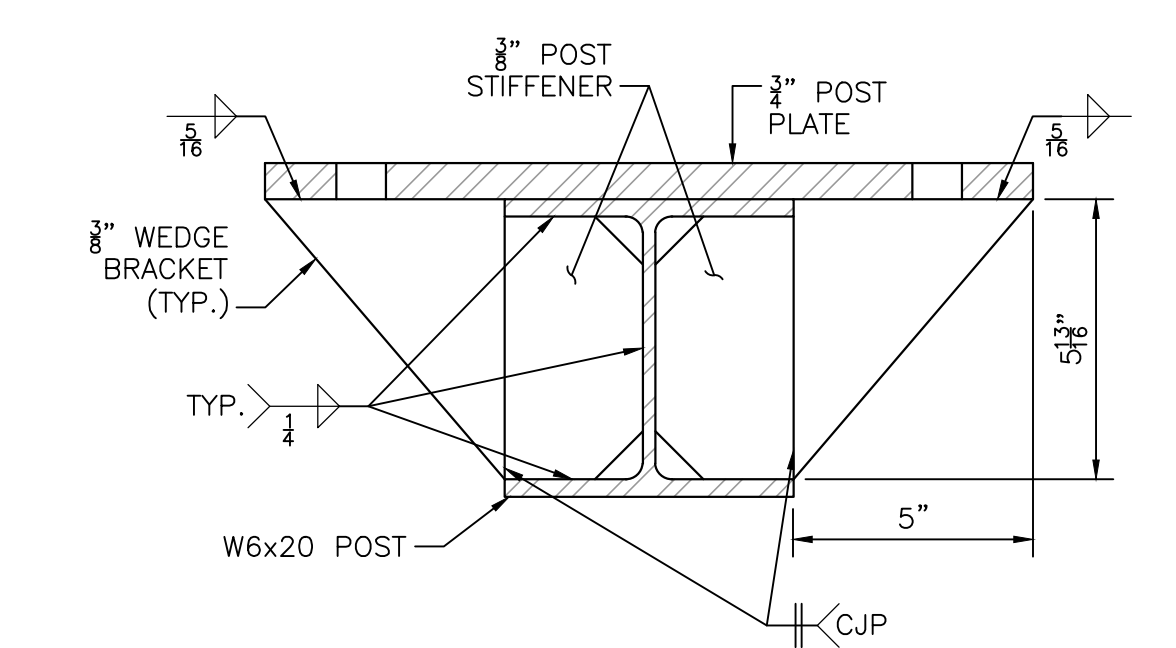


SECTION 2
SCALE: 3" = 1'-0"

- RESIN ANCHOR SYSTEMS:**
- $1\frac{1}{8}$ " (MIN.) DRILLED HOLE IN SLAB OR AS RECOMMENDED BY MANUFACTURER
 - $1\frac{1}{8}$ " ASTM A449 TYPE 1 THREADED ROD SNUG TIGHT & EMBEDDED 12" IN SLAB
 - $2\frac{1}{2}$ " HARDENED LOCKING WASHER AND HEX NUT
- RESIN ANCHOR SYSTEMS:**
- $\frac{3}{8}$ " (MIN.) DRILLED HOLE IN SLAB OR AS RECOMMENDED BY MANUFACTURER
 - $\frac{3}{8}$ " ASTM 449 TYPE 1 THREADED ROD SNUG TIGHT & EMBEDDED 8" IN SLAB
 - HARDENED LOCKING WASHER AND HEX NUT

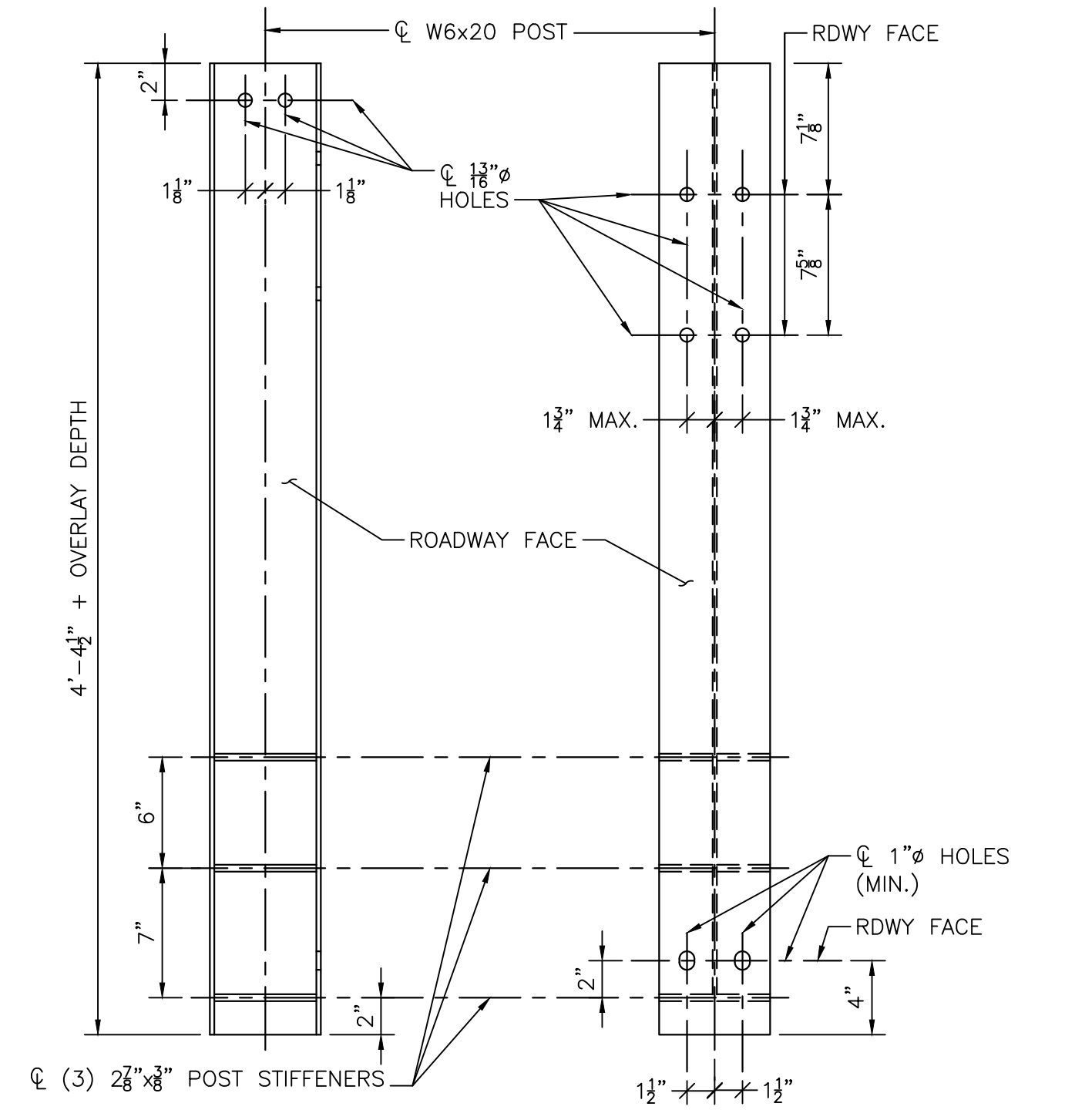


SECTION 3
SCALE: $1\frac{1}{2}$ " = 1'-0"

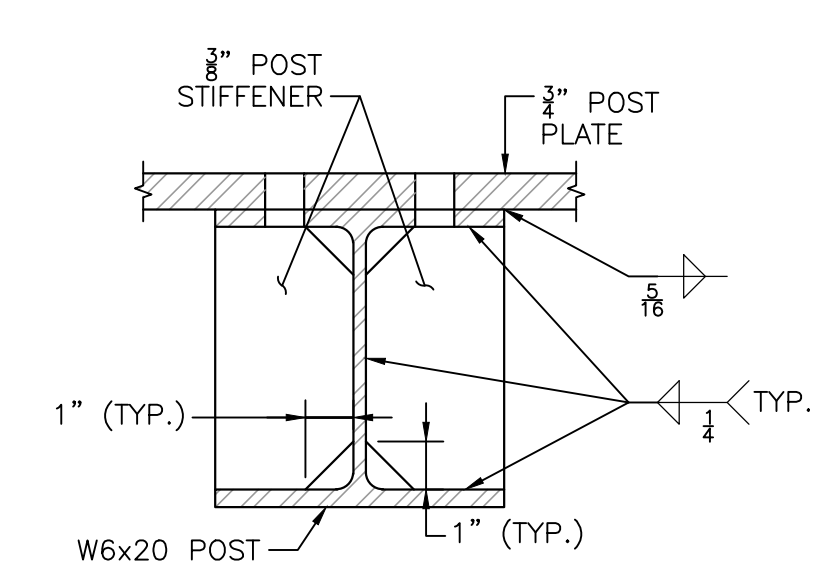


SECTION 4
SCALE: 3" = 1'-0"

GENERAL NOTE:
1. REFER TO SHEET 8 FOR HAND RAIL DETAILS NOT SHOWN HERE.



DETAILS OF POST
SCALE: $1\frac{1}{2}$ " = 1'-0"



SECTION 5
SCALE: 3" = 1'-0"

NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

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BN

DESIGNED BY:
TW

CHECKED BY:
TW

REGISTERED PROFESSIONAL

PREPARED BY

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SUBCONSULTANT

SCALE

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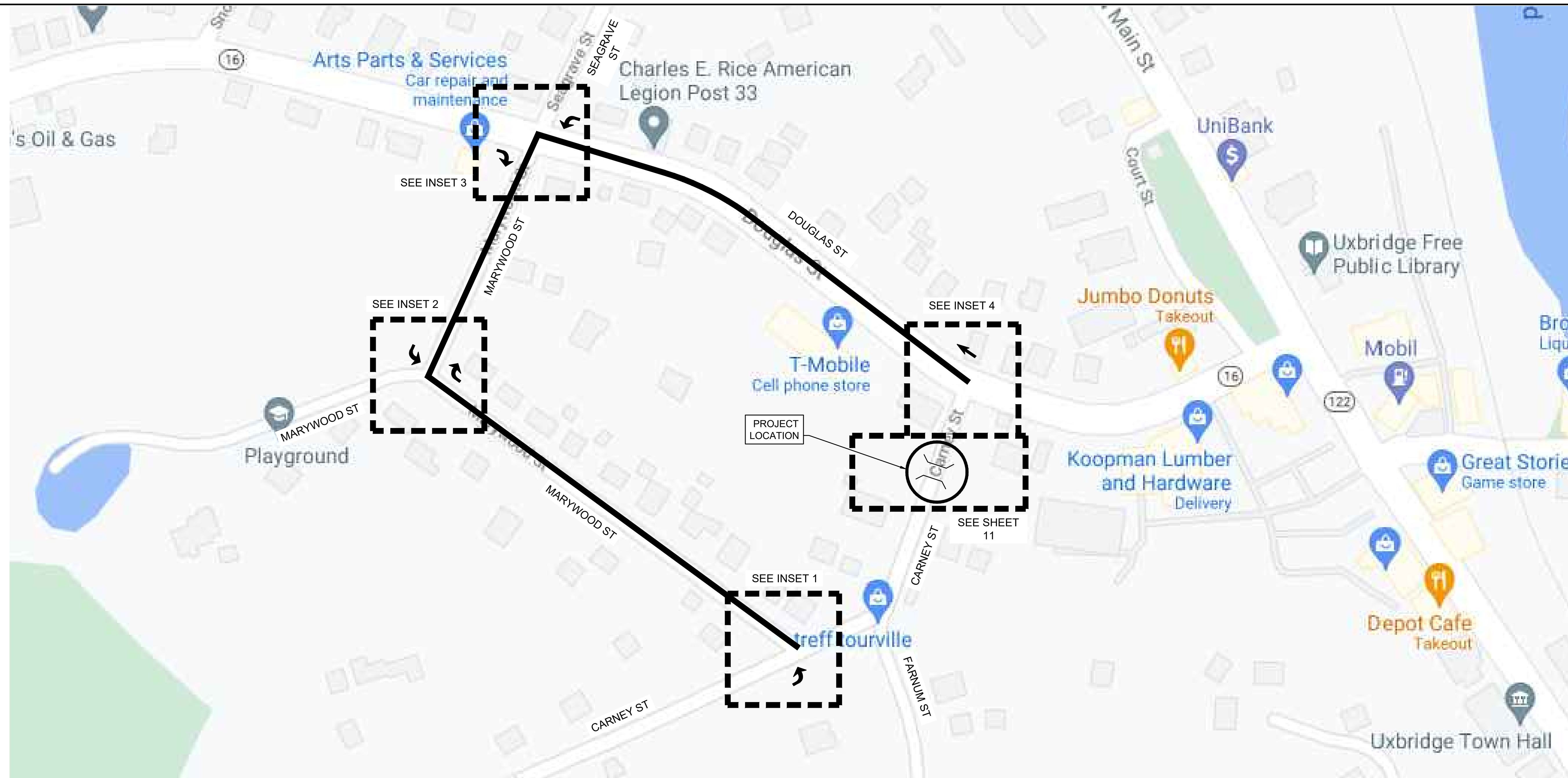
Carney Street Bridge Improvements
Uxbridge, Massachusetts
THRIE BEAM DETAILS (2 OF 2)

BRIDGE NO. 0-02-070

BETA JOB NO. 7545

ISSUE DATE

SHEET NO. 9



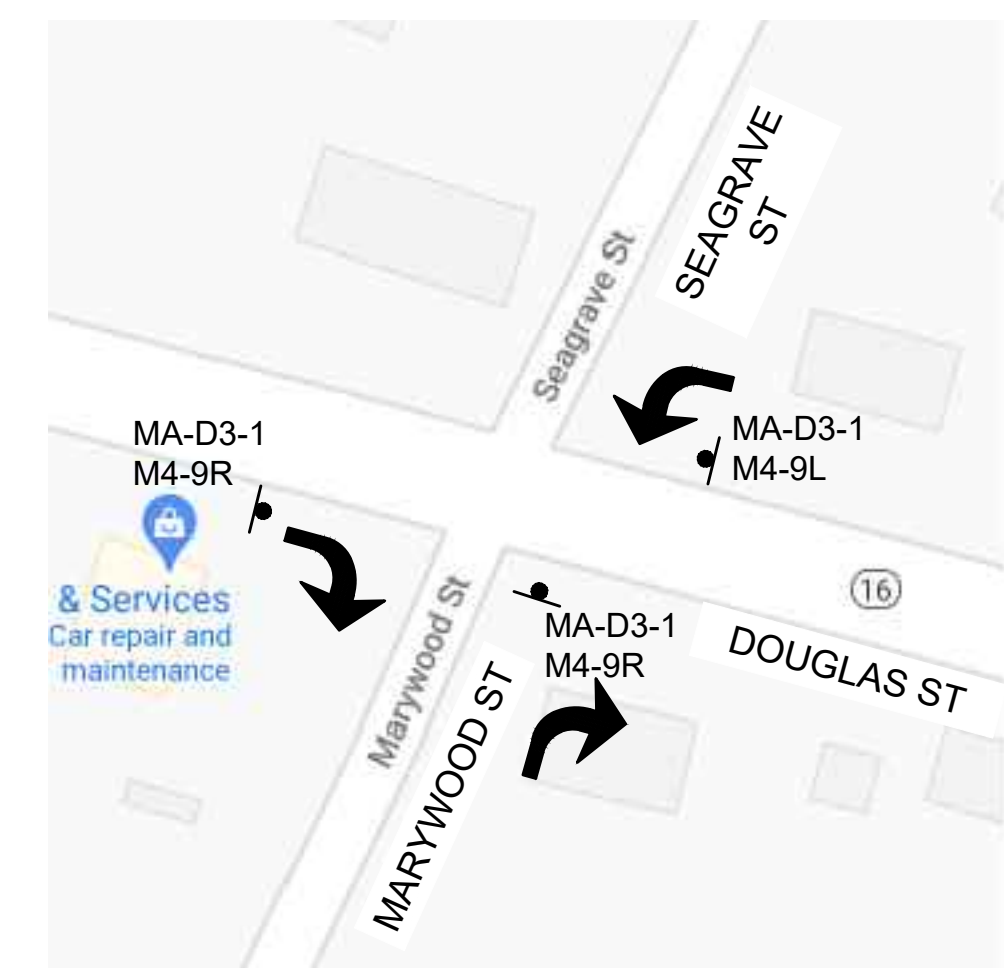
- NOTES:
1. EMERGENCY ACCESS MUST BE MAINTAINED TO ALL PROPERTIES AT ALL TIMES.
 2. DETOUR SIGNS SHALL BE COVERED WHEN DETOUR IS NOT IN ACTIVE USE.



INSET 1
NOT TO SCALE



INSET 2
NOT TO SCALE



INSET 3
NOT TO SCALE



INSET 4
NOT TO SCALE

4/5/2022 3:30 PM \\BETA\IN\BDR01\UXBRIDGE\7546 - UXBRIDGE - SMALL BRIDGE CONTRACT\DRAWING FILES\PLANSET\CARNEY.DWG (BETA STB BW.STB)

NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

DRAWN BY:
SD

DESIGNED BY:
JC

CHECKED BY:
TW

REGISTERED PROFESSIONAL

PREPARED BY



SUBCONSULTANT

SCALE

NONE

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TITLE

Carney Street Bridge Improvements
Uxbridge, Massachusetts
DETOUR PLAN

BETA JOB NO. 7545

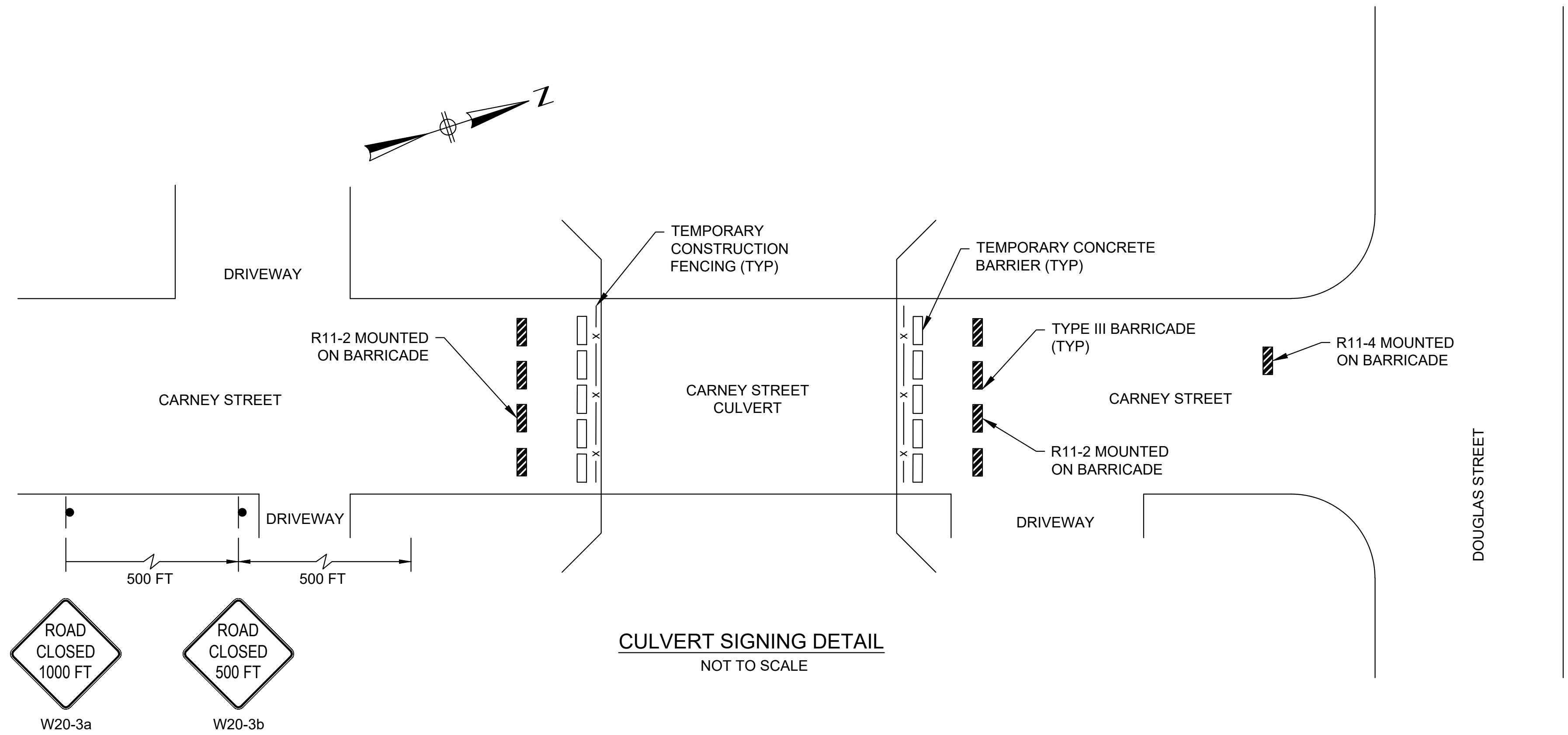
ISSUE DATE

SHEET NO. 10

CONSTRUCTION SIGN SUMMARY

* NO. OF SIGNS ARE ESTIMATED FOR BIDDING PURPOSES ONLY
 ** ALL CONSTRUCTION SIGNAGE SHALL HAVE FLUORESCENT ORANGE BACKGROUND

IDENTIFI- CATION NUMBER	SIZE OF SIGN		TEXT	DIMENSIONS (in)			NUMBER OF SIGNS REQUIRED	COLOR			POST SIZE AND NUMBER REQUIRED	UNIT AREA IN SQUARE FEET	AREA IN SQUARE FEET
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW		BACK- GROUND	LEGEND	BORDER			
R11-2	48 in	30 in	ROAD CLOSED	SEE 2009 MUTCD STANDARDS			2	WHITE	BLACK	BLACK	MOUNT ON BARRICADE	10.0	20.0
R11-4	60 in	30 in	ROAD CLOSED TO THRU TRAFFIC				2	WHITE	BLACK	BLACK	MOUNT ON BARRICADE	12.5	25.0
W20-3a	36 in	36 in	ROAD CLOSED 1000 FT				1	**ORANGE	BLACK	BLACK	P-5 1	9.0	9.0
W20-3b	36 in	36 in	ROAD CLOSED 500 FT				1	**ORANGE	BLACK	BLACK	P-5 1	9.0	9.0
M4-8a	24 in	18 in	END DETOUR				2	**ORANGE	BLACK	BLACK	P-5 2	3.0	6.0
M4-9L	30 in	24 in	DETOUR ←				3	**ORANGE	BLACK	BLACK	MOUNT 1 W/ MA-D3-1 MOUNT 2 W/MA-D3-2	5.0	15.0
M4-9R	30 in	24 in	DETOUR →				3	**ORANGE	BLACK	BLACK	MOUNT 1 W/ MA-D3-1 MOUNT 1 W/MA-D3-2	5.0	15.0
M4-9V	30 in	24 in	DETOUR ↑				1	**ORANGE	BLACK	BLACK	MOUNT W/ MA-D3-2	5.0	5.0
MA-D3-1	42 in	12 in	Carney st				6/4D	3.25 3.75		9	**ORANGE	BLACK	BLACK



4/5/2022 3:30 PM I:\BETA\IN\BDR01\UXBRIDGE\7546 - UXBRIDGE - SMALL BRIDGE CONTRACT\DRAWING FILES\PLANSET\CARNEY\7546_SR(DETOUR)_CARNEY.DWG (BETA STB BW STB)

NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

DRAWN BY: SD	REGISTERED PROFESSIONAL	PREPARED BY	SUBCONSULTANT
DESIGNED BY: JC			
CHECKED BY: TW			

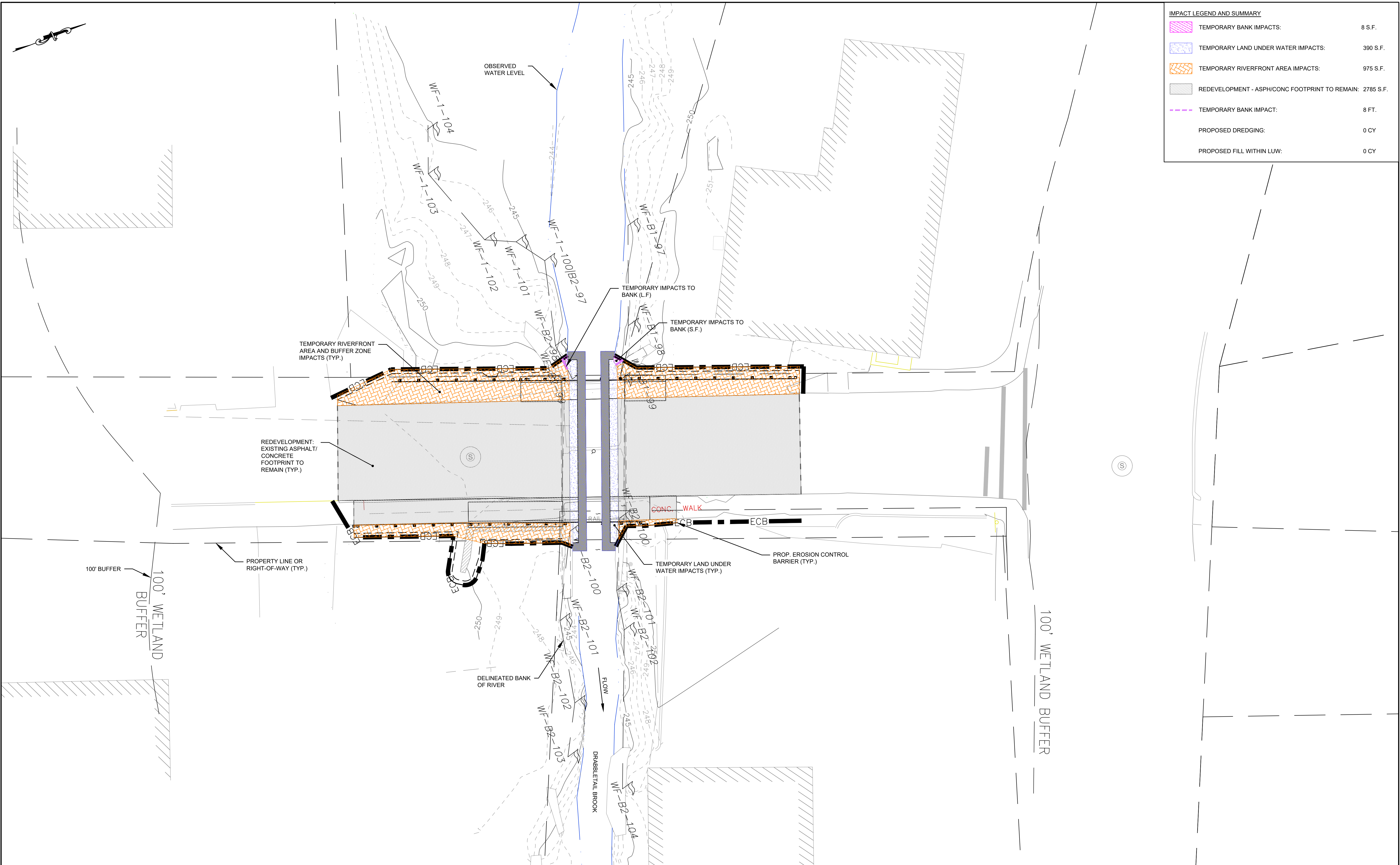



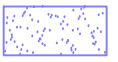



SCALE	NONE
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TITLE	Carney Street Bridge Improvements Uxbridge, Massachusetts DETOUR PLAN
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BETA JOB NO.	7545
ISSUE DATE	
SHEET NO.	11

3/31/2022 4:23 PM N17546 - UXBRIDGE - SMALL BRIDGE CONTRACT/DRAWING FILES/PLANS/BETA/7545 IMPACT PLAN - CARNEY.DWG (BETA STB BW STB)



IMPACT LEGEND AND SUMMARY		
	TEMPORARY BANK IMPACTS:	8 S.F.
	TEMPORARY LAND UNDER WATER IMPACTS:	390 S.F.
	TEMPORARY RIVERFRONT AREA IMPACTS:	975 S.F.
	REDEVELOPMENT - ASPH/CONC FOOTPRINT TO REMAIN:	2785 S.F.
	TEMPORARY BANK IMPACT:	8 FT.
	PROPOSED DREDGING:	0 CY
	PROPOSED FILL WITHIN LUW:	0 CY

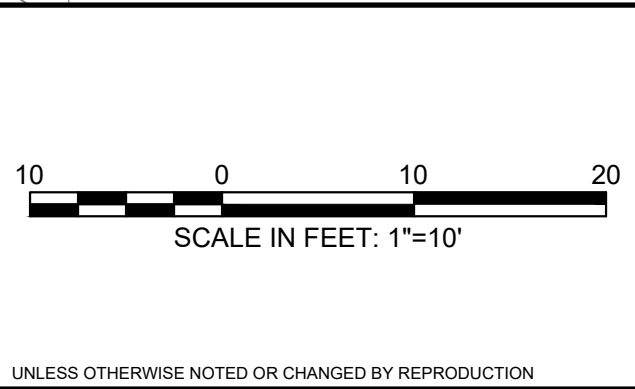
NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

DRAWN BY: SLB / CT
DESIGNED BY: SLB / CT / PP
CHECKED BY:

PREPARED BY



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Carney Street Bridge improvements

RESOURCE IMPACTS PLAN

Carney Street
Uxbridge, MA

BETA JOB NO.	7545
ISSUE DATE	xx/xx/2022
SHEET NO.	8 OF xx



US Army Corps
of Engineers®
New England District

WORK-START NOTIFICATION FORM
(Minimum Notice: Two weeks before work begins)

EMAIL TO: Maninder.Singh@usace.army.mil and cenae-r@usace.army.mil; or

MAIL TO: Maninder Singh
Regulatory Division
U.S. Army Corps of Engineers, New England District
696 Virginia Road
Concord, Massachusetts 01742-2751

Corps of Engineers Permit No. NAE-2022-01048 was issued to Paul Huntak. This work is located at approximately 100 feet southwest of the intersection of Carney Street and Douglas Street, Uxbridge, Massachusetts 01569 at approximate site coordinates 42.076590, -71.632180 and authorized to discharge fill below the Ordinary High Water (OHW) mark of waters of the United States in order to temporarily impact 390 square feet and 8 linear feet of waters with the installation of water control structures, erosion control materials, and restoration of the original grade at project completion as part of rehabilitating the Carney Street Bridge.

The people (e.g., contractor) listed below will do the work, and they understand the permit's conditions and limitations.

PLEASE PRINT OR TYPE

Name of Person/Firm: _____

Business Address: _____

Phone & email: () _____ () _____

Proposed Work Dates: Start: _____ Finish: _____

Permittee/Agent Signature: _____ Date: _____

Printed Name: _____ Title: _____

Date Permit Issued: _____ Date Permit Expires: _____

FOR USE BY THE CORPS OF ENGINEERS

PM: _____ Submittals Required: _____

Inspection Recommendation: _____



**US Army Corps
of Engineers**®
New England District

COMPLIANCE CERTIFICATION FORM

(Minimum Notice: Permittee must sign and return notification
within one month of the completion of work.)

Permit Number: NAE-2022-01048

Project Manager: Maninder Singh

Name of Permittee: Paul Hutnak

Permit Issuance Date: August 20, 2024

Please sign this certification and return it to our office upon completion of the activity.

```

*****
* E-MAIL TO: cenae-r-ma@usace.army.mil; & Maninder.singh@usace.army.mil *
*
* MAIL TO: Massachusetts Section *
* Regulatory Division *
* U.S. Army Corps of Engineers, New England District *
* 696 Virginia Road *
* Concord, MA 01742-2751 *
*****

```

Please note that your permitted activity is subject to a compliance inspection by an U.S. Army Corps of Engineers representative. If you fail to comply with this permit you are subject to permit suspension, modification, or revocation.

I hereby certify that the work authorized by the above referenced permit was completed in accordance with the terms and conditions of the above referenced permit, and any required mitigation was completed in accordance with the permit conditions.

Signature of Permittee

Date

Printed Name

Date of Work Completion

() _____
Telephone Number

() _____
Telephone Number



DEPARTMENT OF THE ARMY
US ARMY CORPS OF ENGINEERS
NEW ENGLAND DISTRICT
696 VIRGINIA ROAD
CONCORD MA 01742-2751

August 20, 2024

Regulatory Division
File Number: NAE-2022-01050

Paul Hutnak
Town of Uxbridge
147 Hecla Street
Uxbridge, Massachusetts 01569
Email: phutnak@uxbridge-ma.gov

Dear Paul Hutnak:

This is in response to a recent request dated June 24, 2024, to reauthorize a project authorized by the Department of the Army permit number NAE-2022-01050 on July 28, 2022. The authorization was to discharge fill below the ordinary high water (OHW) mark of Waters of the U.S. in order to permanently impact 25 linear feet of stream, and temporarily impact 20 linear feet of stream and 654 square feet of open water for the purpose of bridge rehabilitation. Activities include temporary dewatering, installation of water bypass and control structures, erosion control materials, bank stabilization, replacement of northern wingwalls, and replacement of northern and southern headwalls with monument slabs. The project activities are hereby reauthorized under the June 2, 2023, Massachusetts General Permits. This project is located on Aldrich Brook, adjacent to 371 Aldrich Street, Uxbridge, Massachusetts at approximate site coordinates 42.027757, -71.640558. The work is shown on the enclosed plans titled "TOWN OF UXBRIDGE, MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS ALDRICH STREET BRIDGE PRESERVATION" on 11 sheets and dated, "APRIL 2022".

Based on the information that you have provided, we verify that the activity is authorized under General Permit # 23 of the June 2, 2023, federal permit known as the Massachusetts General Permits (GPs). The GPs are available at <https://www.nae.usace.army.mil/Missions/Regulatory/State-General-Permits/Massachusetts-General-Permit>.

Please review the enclosed GPs carefully, in particular the general conditions beginning on page 35, and ensure that you and all personnel performing work authorized by the GPs are fully aware of and comply with its terms and conditions. A copy of the GPs and this verification letter shall be available at the work site as required by General Condition 17. You must perform this work in compliance with the following special condition(s):

- 1) You must complete and return the enclosed Work Start Notification Form to this office at least two weeks before the anticipated start date. The form shall be

emailed to Maninder Singh at Maninder.Singh@usace.army.mil and cenae-r@usace.army.mil; or mailed to Maninder Singh, Regulatory Division, U.S. Army Corps of Engineers, New England District, 696 Virginia Road, Concord, Massachusetts 01742-2751.

- 2) You must complete and return the enclosed Compliance Certification Form to this office within one month of the completion of work. The form shall be emailed to Maninder Singh at Maninder.Singh@usace.army.mil and cenae-r@usace.army.mil; or mailed to Maninder Singh, Regulatory Division, U.S. Army Corps of Engineers, New England District, 696 Virginia Road, Concord, Massachusetts 01742-2751.

This authorization expires on June 1, 2028. You must commence or have under contract to commence the work authorized herein by June 1, 2028, and complete the work by June 1, 2029. If not, you must contact this office to determine the need for further authorization and we recommend you contact us *before* the work authorized herein expires. Please contact us immediately if you change the plans or construction methods for work within our jurisdiction as we must approve any changes before you undertake them. Performing work within our jurisdiction that is not specifically authorized by this determination or failing to comply with the special condition(s) provided above or all the terms and conditions of the GPs may subject you to the enforcement provisions of our regulations.

This authorization does not obviate the need to obtain other federal, state, or local authorizations required by law. Applicants are responsible for applying for and obtaining any other approvals.

We continually strive to improve our customer service. To better serve you, we would appreciate your completing our Customer Service Survey located at <https://regulatory.ops.usace.army.mil/customer-service-survey>.

Please contact Maninder Singh of my staff at (978) 318-8967 or (978)-257-6884 or Maninder.Singh@usace.army.mil if you have any questions.

Sincerely,

Paul Maniccia

Paul Maniccia
Chief, Massachusetts Section
Regulatory Division

Enclosures

Cc:

Todd Warzecki, BETA Group, Inc.; TWarzecki@BETA-Inc.com

Ed Reiner, U.S. EPA, Region 1, Boston, MA, reiner.ed@epa.gov

Rachel Croy, U.S. EPA, Region 1, Boston, MA, croy.rachel@epa.gov

DEP CERO, Wetlands and Waterways, Worcester, MA; zero_noi@mass.gov

David Robinson, MA Board of Underwater Archaeological Resources (BUAR);
david.s.robinson@mass.gov

Uxbridge Conservation Commission, EPetro@uxbridge-ma.gov

TOWN OF UXBRIDGE, MASSACHUSETTS

DEPARTMENT OF PUBLIC WORKS

ALDRICH STREET

BRIDGE PRESERVATION

APRIL 2022

BOARD OF SELECTMEN

BRIAN BUTLER
 JEFF SHAW
 STEPHEN MANDILE
 SUSAN FRANZ
 BRIAN PLASKO

TOWN MANAGER

STEVEN SETTE

DEPARTMENT OF PUBLIC WORKS

BENN S. SHERMAN, PE, DIRECTOR
 PAUL HUTNUK, PE, CIVIL ENGINEER



LOCATION MAP
 SCALE 1" = 1000'

PLAN INDEX

<u>SHEET NO.</u>	<u>DESCRIPTION</u>
1	COVER SHEET
2	GENERAL NOTES & LEGEND
3	CONSTRUCTION PLAN AND PROFILE
4	CONSTRUCTION DETAILS
5	BRIDGE COVER SHEET
6	STRUCTURAL DETAILS
7	CONCRETE REPAIR DETAILS
8	THRIE BEAM DETAILS
9-10	DETOUR PLAN

**100%
 SUBMISSION**

PREPARED BY:



www.BETA-Inc.com

ISSUE DATE: APRIL 5, 2022

REGISTERED PROFESSIONAL _____ DATE _____

LEGEND

GENERAL SYMBOLS

EXISTING	PROPOSED	
		CURB OR BERM (TYPE AS NOTED)
		EDGE OF PAVEMENT
		CATCH BASIN (OR GUTTER INLET, LEACHING BASIN, DROP INLET, CATCH BASIN CURB INLET)
		ELECTRIC HANDHOLE (NUMBER AS NOTED)
		ELECTRIC MANHOLE
		TELEPHONE MANHOLE
		WATER MANHOLE
		SEWER MANHOLE
		SEWER MANHOLE
		DRAINAGE MANHOLE
		GAS GATE
		WATER GATE
		CURB STOP
		HYDRANT
		FIRE ALARM BOX
		PARKING METER
		STREET LIGHT POLE
		UTILITY POLE
		UTILITY POLE w/ LIGHT
		SIGN
		GUY POLE
		DRAIN PIPE (SIZE AS NOTED)
		SEWER MAIN (SIZE AS NOTED)
		ELECTRIC DUCT
		GAS MAIN (SIZE AS NOTED)
		WATER MAIN (SIZE AS NOTED)
		TELEPHONE DUCT (SIZE AS NOTED)
		OVERHEAD WIRE
		MAIL BOX
		WOOD GUARD RAIL STEEL BEAM GUARD, WOOD OR STEEL POSTS (TYPE AS NOTED)
		STEEL GUARD RAIL, STEEL POSTS (TYPE NOTED)
		STONE WALL
		RETAINING WALL (TYPE NOTED)
		HIGHWAY/PROPERTY BOUND (TYPE AS NOTED)
		STATE HIGHWAY LAYOUT LINE (SHLO)
		CITY, TOWN OR COUNTY LAYOUT LINE (R.O.W.)
		CITY, TOWN, COUNTY OR STATE BOUNDARY LINE
		PROPERTY LINE
		EASEMENT LINE (TYPE NOTED)
		CONSTRUCTION BASELINE
		SURVEY LINE
		RAILROAD OR STREET RAILWAY TRACKS WITH SIDELINES
		WHEELCHAIR RAMP
		TREE (SIZE AND TYPE AS NOTED)
		HEDGE/SHRUBS
		FENCE (SIZE AND TYPE AS NOTED)
		EDGE OF WETLAND w/ FLAGGED NUMBER
		EDGE OF RIVER/STREAM LINE
		100-FT. WETLAND BUFFER LIMIT
		100-FT. RIVER FRONT LIMIT
		200-FT. RIVER FRONT LIMIT
		WOODED AREA / LIMIT OF CLEARING
		SPOT GRADE
		SAW CUT LINE
		TEST PIT
		BORING
		EROSION CONTROL BARRIER/COMPOST FILTER TUBES

ABBREVIATIONS

GENERAL

ABAN	ABANDON
ADJ	ADJUST
ALT	ALTERATION
APPROX	APPROXIMATE
B	BASELINE
BB	BITUMINOUS BERM
BC	BITUMINOUS CURB
BD OR BND	BOUND
BLDG	BUILDING
BO	BY OTHERS
BOS	BOTTOM OF SLOPE
BOW	BOTTOM OF WALL
BSW	BACK OF SIDEWALK
CC	CONCRETE CURB
CEM	CEMENT
CLF	CHAIN LINK FENCE
CONC	CONCRETE
CONST	CONSTRUCTION
CONT	CONTINUOUS
DWY	DRIVEWAY
EP, EOP	EDGE OF PAVEMENT
EL	ELEVATION
ESMT	EASEMENT
EXIST	EXISTING
FDN	FOUNDATION
GRAN	GRANITE
GC	GRANITE CURB
HOR	HORIZONTAL
IP	IRON PIPE
JCT	JUNCTION
LP	LOW POINT
MB	MAIL BOX
MHB	MASSACHUSETTS HIGHWAY BOUND
OC	ON CENTER
PCC	POINT OF COMPOUND CURVATURE
PC	POINT OF CURVATURE
PRC	POINT OF REVERSE CURVATURE
PI	POINT OF INTERSECTION
PT	POINT OF TANGENCY
PVC	POINT OF VERTICAL CURVATURE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY
PERM	PERMANENT
PGL	PROFILE GRADE LINE
PROP	PROPOSED
PVC	POINT OF VERTICAL CURVATURE
PVMT	PAVEMENT
R	RADIUS OF CURVATURE
R&D	REMOVE AND DISCARD
R&R	REMOVE AND RESET
R&S	REMOVE AND STACK
REM	REMOVE
REMOD	REMODEL
RET	RETAIN
RR	RAILROAD
RT	RIGHT
SB	SOUTH BOUND OR STONE BOUND
SW	SIDEWALK
SHT	SHEET
SHLD	SHOULDER
STA	STATION
TEMP	TEMPORARY
TOS	TOP OF SLOPE
TOW	TOP OF WALL
TYP	TYPICAL
VAR	VARIABLE
VERT	VERTICAL
VGC	VERTICAL GRANITE CURB
WCR	WHEELCHAIR RAMP

TRAFFIC SIGNAL SYSTEMS

R	STEADY CIRCULAR RED
Y	STEADY CIRCULAR AMBER
G	STEADY CIRCULAR GREEN
FR	FLASHING CIRCULAR RED
FY	FLASHING CIRCULAR AMBER
+FY	FLASHING YELLOW LEFT ARROW
R-	STEADY RED RIGHT ARROW
Y-	STEADY AMBER RIGHT ARROW
G-	STEADY GREEN RIGHT ARROW
+R	STEADY RED LEFT ARROW
+Y	STEADY AMBER LEFT ARROW
+G	STEADY GREEN LEFT ARROW
W	STEADY WALK (PERSON WALKING) - LUNAR WHITE
DW	STEADY DON'T WALK (HAND) - PORTLAND ORANGE
FDW	FLASHING DON'T WALK (FLASHING HAND) - PORTLAND ORANGE

UTILITIES

CB	CATCH BASIN
CBCI	CATCH BASIN WITH CURB INLET
CI	CURB INLET
CIP	CAST IRON PIPE
CMP	CORRUGATED METAL PIPE
C	CONDUIT
CPP	CORRUGATED PLASTIC PIPE
CSP	CORRUGATED STEEL PIPE
DI	DUCTILE IRON PIPE
F&C	FRAME AND COVER
F&G	FRAME AND GRATE
FM	FORCE MAIN
GI	GUTTER INLET
GIP	GALVANIZED IRON PIPE
GG	GAS GATE
HYD	HYDRANT
INV	INVERT ELEVATION
LP	LIGHT POLE
MH	MANHOLE
PVC	POLY-VINYL-CHLORIDE PIPE
RCP	REINFORCED CONCRETE PIPE (CLASS III UNLESS NOTED)
SD	SUBDRAIN
SMH	SEWER MANHOLE
TS	TRAFFIC SIGNAL
UP	UTILITY POLE
UPL	UTILITY POLE w/ LIGHT
UPT	UTILITY POLE w/ TRANSFORMER
VCP	VITRIFIED CLAY PIPE
WG	WATER GATE
WM	WATER METER/WATER MAIN

TRAFFIC SIGNAL SYMBOLS

EXISTING	PROPOSED	
		CONTROL CABINET GROUND MOUNTED WITH FOUNDATION
		CONTROL CABINET POLE MOUNTED
		CONTROLLER PHASE
		MAST ARM, SHAFT & BASE (ARM LENGTH AS NOTED)
		VEHICULAR SIGNAL HEAD (ALPHA-NUMERIC DESIGNATION AS NOTED)
		VEHICULAR SIGNAL HEAD, OPTICALLY PROGRAMMED
		VEHICULAR SIGNAL HEAD (REMOVED & RESET)
		FLASHING BEACON
		PEDESTRIAN SIGNAL HEAD
		PEDESTRIAN SIGNAL HEAD, OPTICALLY PROGRAMMED
		PULL BOX 12"x12" OR HANDHOLE
		LOOP DETECTOR
		PEDESTRIAN PUSH BUTTON, SIGN (DIRECTIONAL ARROW AS SHOWN) AND SADDLE
		PRE-EMPTION DETECTOR
		PRE-EMPTION CONFIRMATION STROBE
		SIGNAL CONDUIT (SINGLE RUN)
		SIGNAL CONDUIT (DOUBLE RUN)
		SIGNAL POST & BASE
		MAGNETIC DETECTOR
		SCHOOL ZONE SPEED LIMIT SIGN
		MICROWAVE OR ULTRASONIC DETECTOR
		VIDEO DETECTION CAMERA
		VIDEO DETECTION ZONE

PAVEMENT MARKINGS AND SIGNING SYMBOLS

PROPOSED

CW	CROSSWALK, 2 - 12" WHITE LINES (8" WIDTH)
SL	STOP LINE - 12" WHITE LINE 4" BEHIND CW (TYP.)
SWEL	SOLID WHITE EDGE LINE - 4"
SWCHL	SOLID WHITE CHANNELIZING LINES - 12" (SPACING NOTED)
SWG	SOLID WHITE GORE LINE 12" @ 33", (SPACING NOTED)
SWLL	SOLID WHITE LANE LINE - 4"
SWPL	SOLID WHITE PARKING LINE - 4"
BWLL	BROKEN WHITE LANE LINE - 4"
DWLex	DOTTED WHITE LANE EXTENSION LINE - 4" (2' LINE & 6' GAP)
DYLex	DOTTED YELLOW LANE EXTENSION LINE - 4" (2' LINE & 6' GAP)
BYCL	BROKEN YELLOW CENTERLINE - 4"
DYCL	DOUBLE YELLOW CENTERLINE - 2 - 4" LINES
SYEL	SOLID YELLOW EDGE LINE - 4"
SYGL	SOLID YELLOW GORE LINE 12" @ 33", (SPACING NOTED)
SYLL	SOLID YELLOW LANE LINE - 4"
SYCTEL	SOLID YELLOW CYCLE TRACK EDGE LINE - 4"
DYCTCL	DOTTED YELLOW CYCLE TRACK CENTERLINE - 4" (3' LINE & 9' GAP)
SCHOOL	SCHOOL ZONE - WHITE
	HANDICAP SYMBOL - WHITE
	PAVEMENT ARROW - WHITE
ONLY	LEGEND "ONLY" - WHITE

4/5/2022 3:30 PM I:\BETA\IN\BDR01\UXBRIDGE\7546 - UXBRIDGE - SMALL BRIDGE CONTRACT\DRAWING FILES\PLANSET\ALDRICH\7546_SR(LEGEND)_ALDRICH.DWG (BETA STB BWS) (STB)

NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

DRAWN BY:	SD
DESIGNED BY:	BB
CHECKED BY:	TW

REGISTERED PROFESSIONAL
Not for Construction



PREPARED BY
SUBCONSULTANT

SCALE
NONE

TITLE

**Aldrich Street Bridge Improvements
Uxbridge, Massachusetts**
LEGEND AND ABBREVIATIONS
BRIDGE NO. U-02-038

BETA JOB NO. 7545
ISSUE DATE
SHEET NO. 2

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

HIGHWAY GUARD DETAILS

TRAILING ANCHORAGE STA -0+05 TO 0+04.5 LT
 GUARDRAIL - TL-3 (SINGLE FACED) 0+04.5 TO 0+62 LT
 TRANSITION TO THRIE BEAM STA 0+62 TO 0+68 LT
 BRIDGE THRIE BEAM GUARDRAIL 0+68 TO 1+07 LT
 TRANSITION TO THRIE BEAM STA 1+07 TO 1+13 LT
 GUARDRAIL - TL-3 (SINGLE FACED) 1+13 TO 2+00.5 LT
 TRAILING ANCHORAGE STA 2+00.5 TO 2+10 LT

TRAILING ANCHORAGE STA 0+01 TO 0+10.5 RT
 GUARDRAIL - TL-3 (SINGLE FACED) 0+10.5 TO 0+73 RT
 TRANSITION TO THRIE BEAM STA 0+73 TO 0+79 RT
 BRIDGE THRIE BEAM GUARDRAIL STA 0+79 TO 0+96 RT
 TRANSITION TO THRIE BEAM STA 0+96 TO 1+02 RT
 GUARDRAIL - TL-3 (SINGLE FACED) 1+02 TO 1+60.5 RT
 TRAILING ANCHORAGE STA 1+60.5 TO 1+70 RT

PAVEMENT NOTES

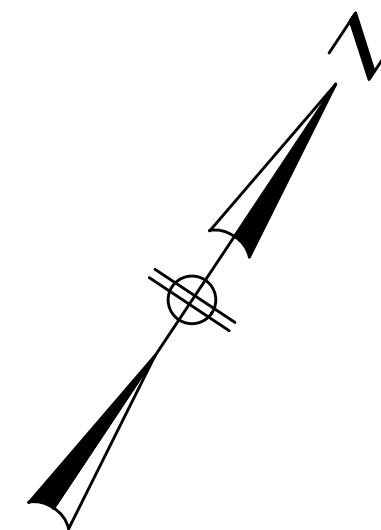
FULL DEPTH PAVEMENT
 SURFACE COURSE: 1-3/4" SUPERPAVE SURFACE COURSE - 12.5 (SSC-12.5) OVER ASPHALT EMULSION FOR TACK COAT (RS-1H) OVER

INTERMEDIATE COURSE: 1-3/4" SUPERPAVE INTERMEDIATE COURSE - 12.5 (SIC-12.5) OVER ASPHALT EMULSION FOR TACK COAT (RS-1H) OVER

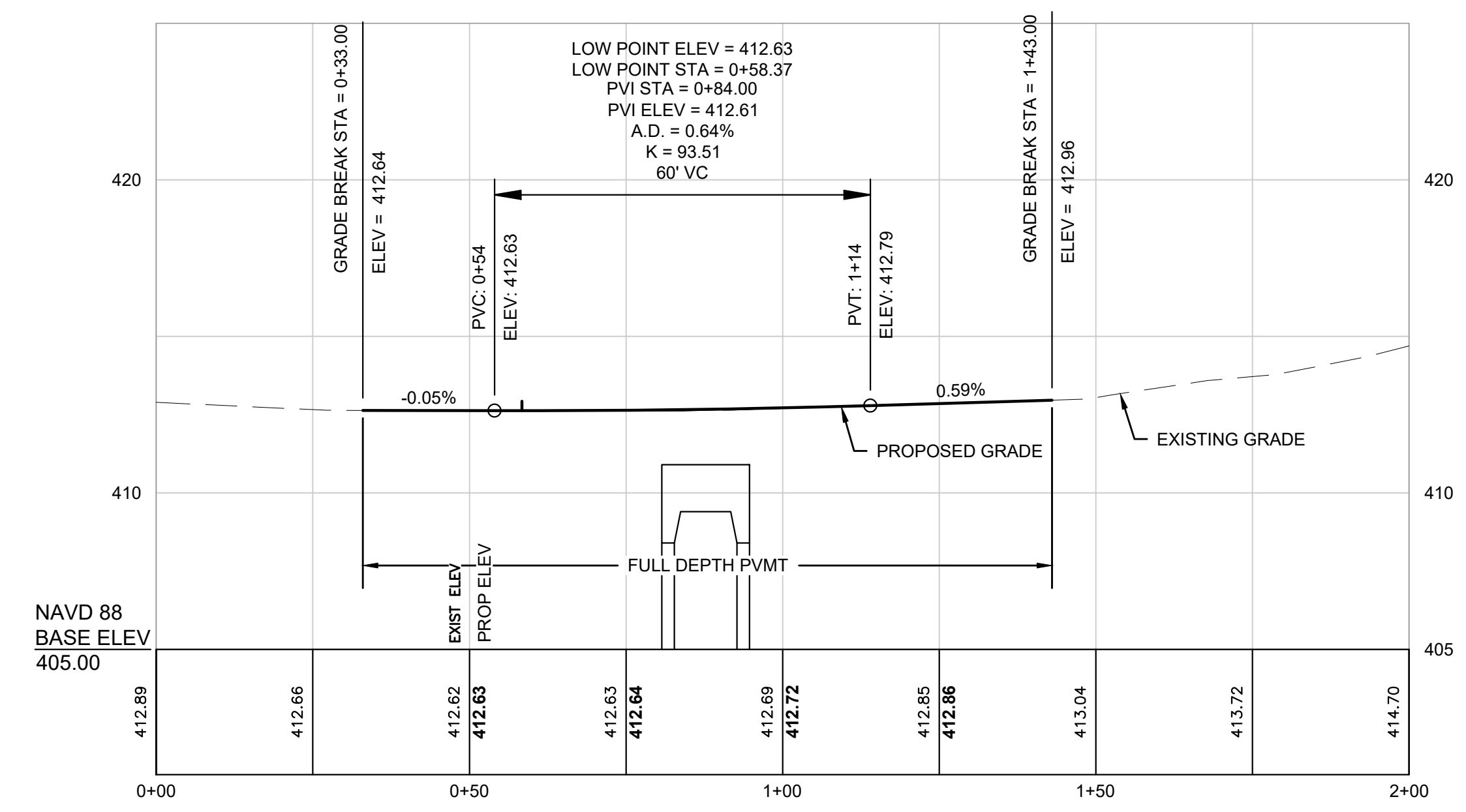
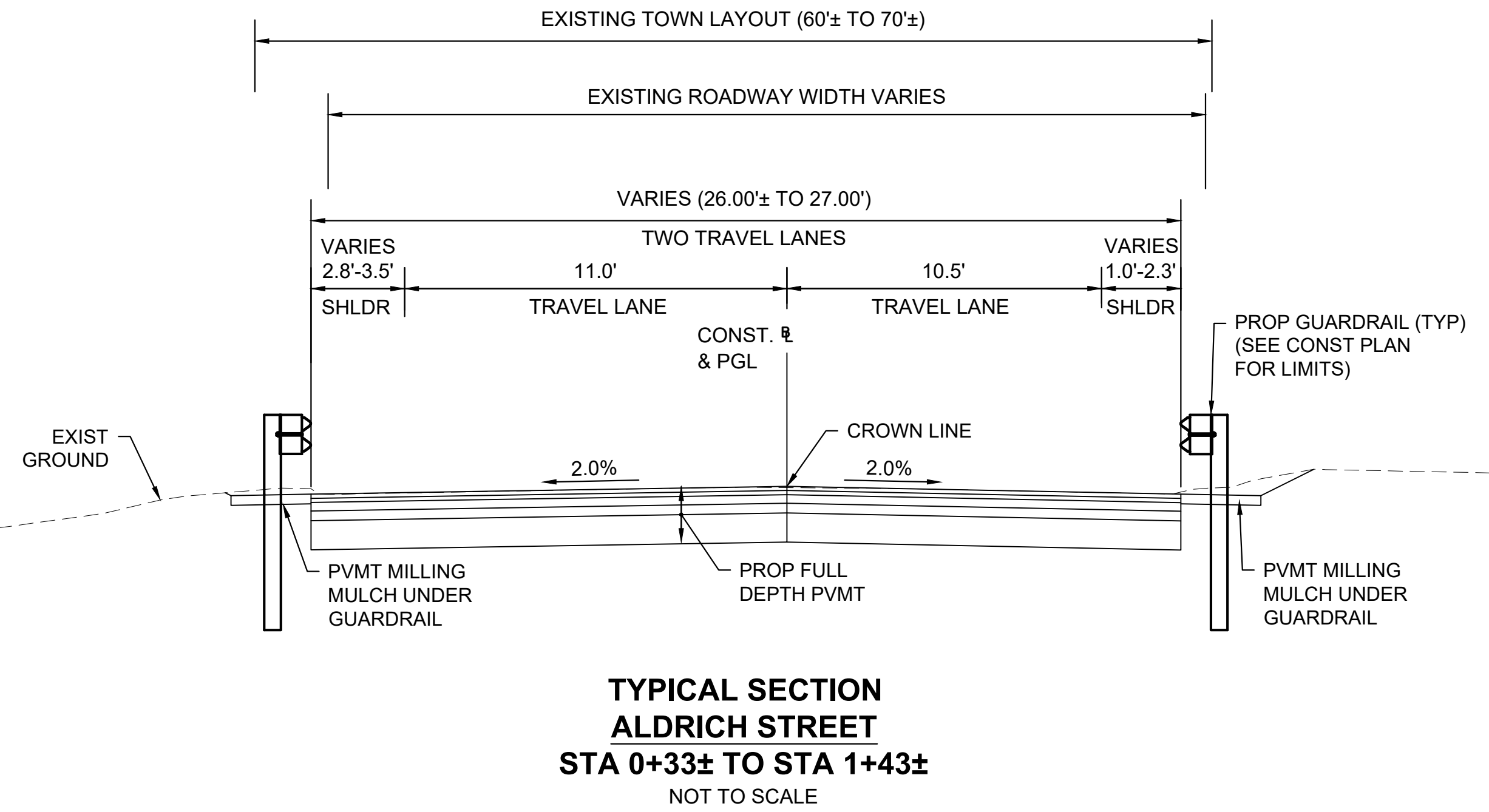
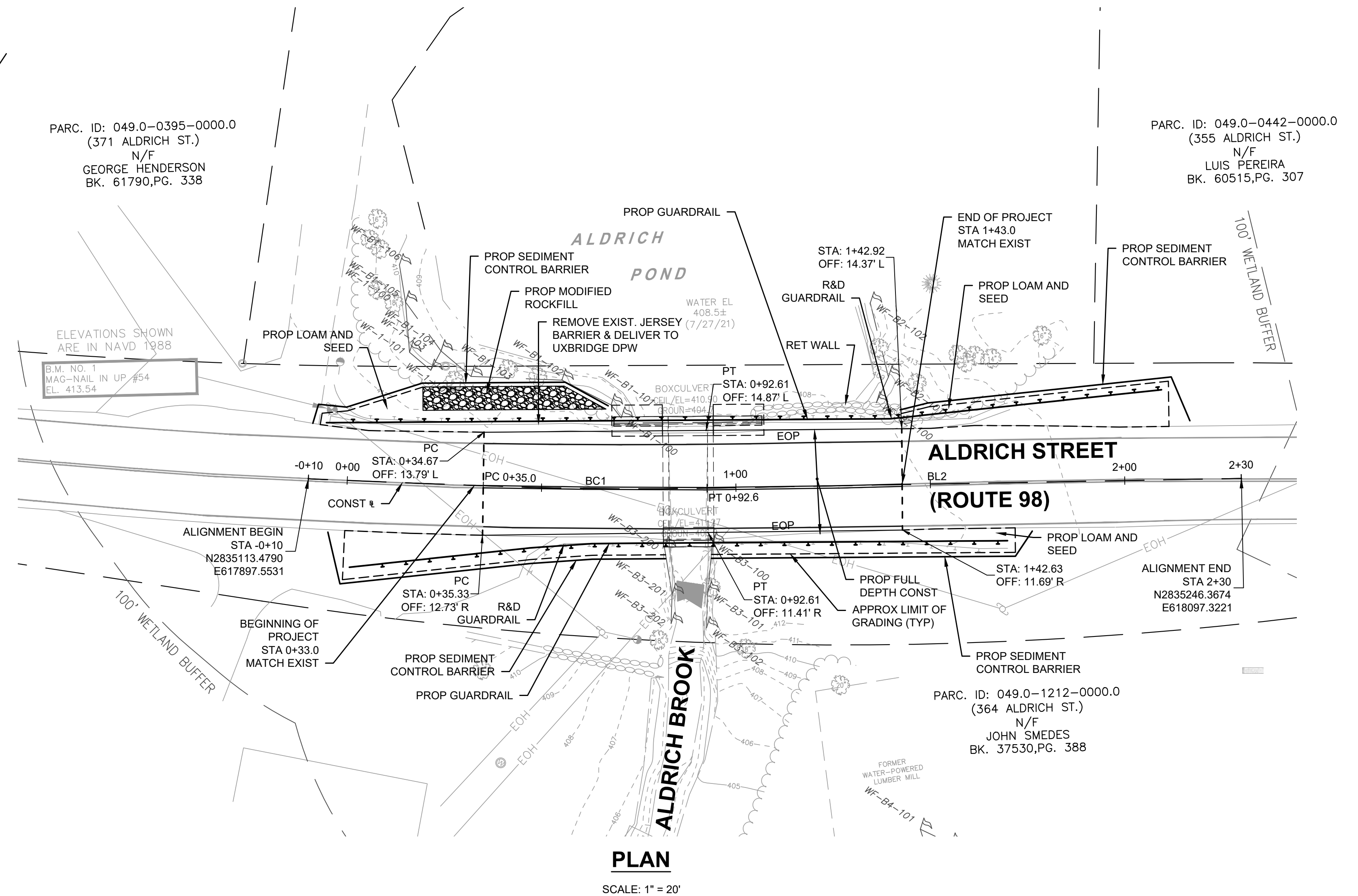
BASE COURSE: 3-1/2" SUPERPAVE BASE COURSE - 37.5 (SBC-37.5) OVER

SUB-BASE: 4" DENSE GRADED CRUSHED STONE FOR SUB-BASE OVER 8" GRAVEL BORROW TYPE b (M1.03.01)

PROJECT TACK COAT NOTES
 TACK COAT: ASPHALT EMULSION FOR TACK COAT, GRADE RS-1 SHALL BE PLACED AT A RATE OF:
 0.07 GALLONS PER SQUARE YARD OVER MILLED SURFACES
 0.07 GALLONS PER SQUARE YARD OVER CEMENT CONCRETE BASE COURSE
 0.05 GALLONS PER SQUARE YARD OVER SMOOTH TIGHT PAVEMENTS
 PRIOR TO PAVING AN OVERLAY



ALDRICH STREET CL CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
BC1	0+35.01	2835136.8950	617935.9948	R = 1000.00' Δ = 3°18'01" L = 57.60' T = 28.81'		0+92.61	2835168.2594	617984.2972
BL2	0+92.61	2835168.2594	617984.2972		N55°21'10"E 137.39'	2+30.00	2835246.3674	618097.3221



4/5/2022 3:40 PM I:\BETA\IN\BDRR\UXBRIDGE\7546 - UXBRIDGE - SMALL BRIDGE CONTRACT\DRAWING FILES\PLANSET\ALDRICH\7546_SR\CONSTRUCTION PLAN AND PROFILE\ALDRICH.DWG (BETA STB.BW.STB)

NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

DRAWN BY: SD
 DESIGNED BY: BB
 CHECKED BY: TW

REGISTERED PROFESSIONAL
Not for Construction
BETA
 www.BETA-Inc.com

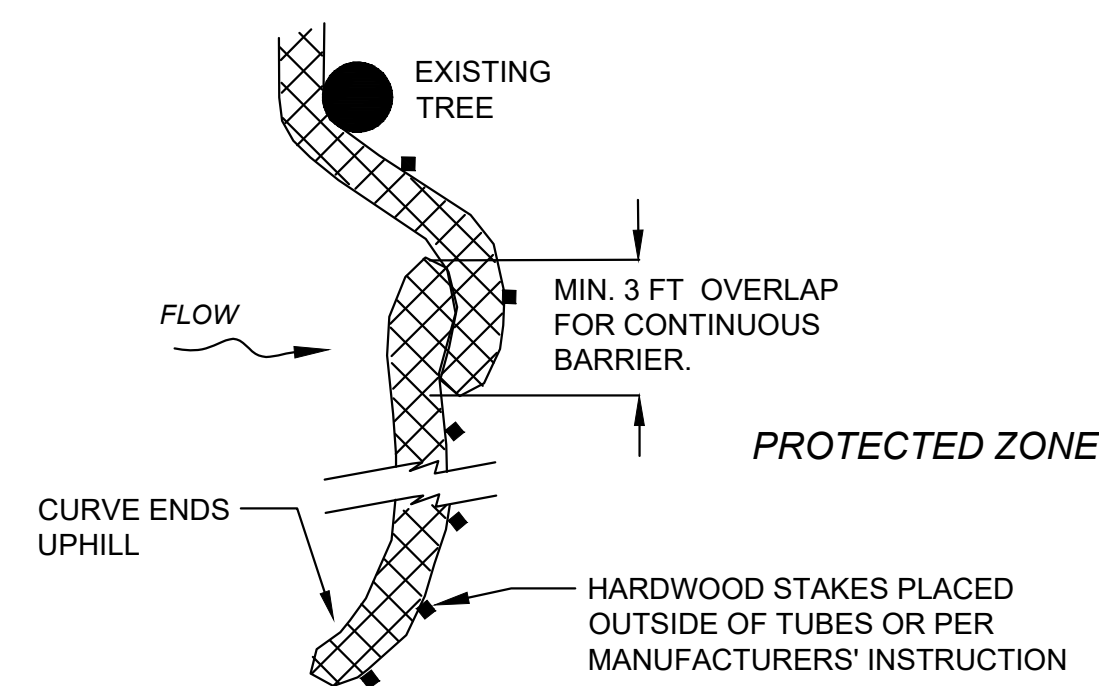
PREPARED BY: SUBCONSULTANT

SCALE: AS SHOWN

TITLE: **Aldrich Street Bridge Improvements Uxbridge, Massachusetts CONSTRUCTION PLAN AND PROFILE**
 BRIDGE NO. U-02-038

BETA JOB NO. 7545
 ISSUE DATE: _____
 SHEET NO. 3

4/5/2022 3:40 PM I:\BETA\IN\BDR01\UXBRIDGE\46 - UXBRIDGE - SMALL BRIDGE CONTRACT\DRAWING FILES\PLANSET\ALDRICH\7545_S\SR(D\DETAILS)_ALDRICH.DWG (BETA STB B\N\STB)

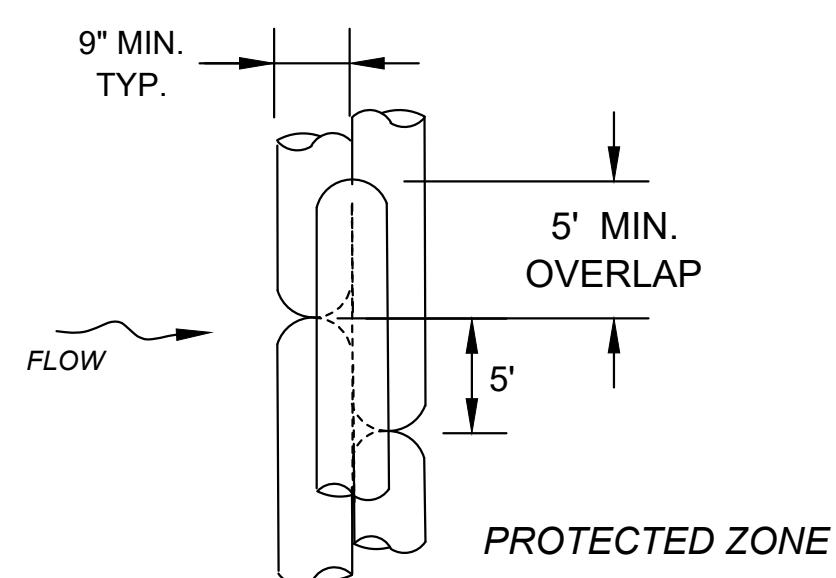


PLACE TUBE AS CLOSE TO LIMIT OF SOIL DISTURBANCE AS POSSIBLE, ALONG CONTOURS, AND PERPENDICULAR TO FLOW.

ADJUST LOCATION AS REQUIRED FOR OPTIMUM EFFECTIVENESS. DO NOT INSTALL IN WATERWAYS.

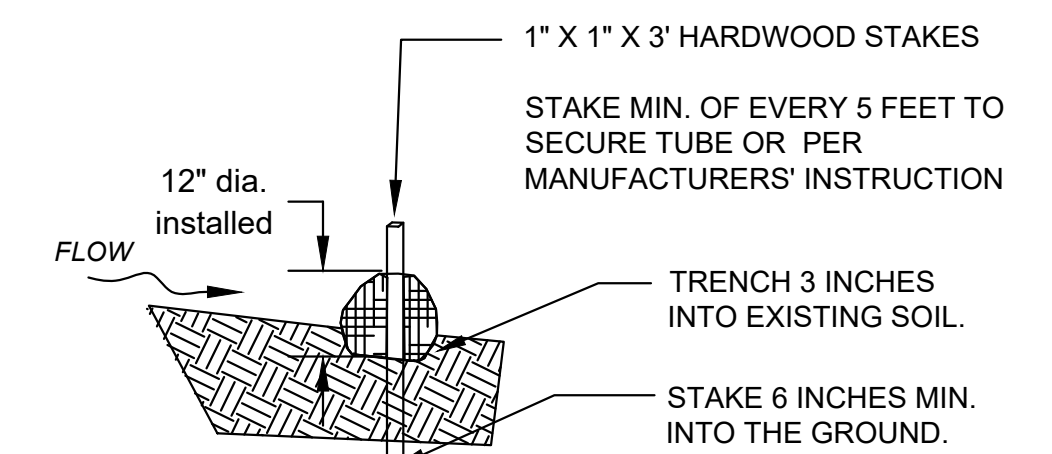
PLAN VIEW

WHERE SPECIFIED ON CONSTRUCTION PLANS OR AS REQUIRED



PLAN VIEW

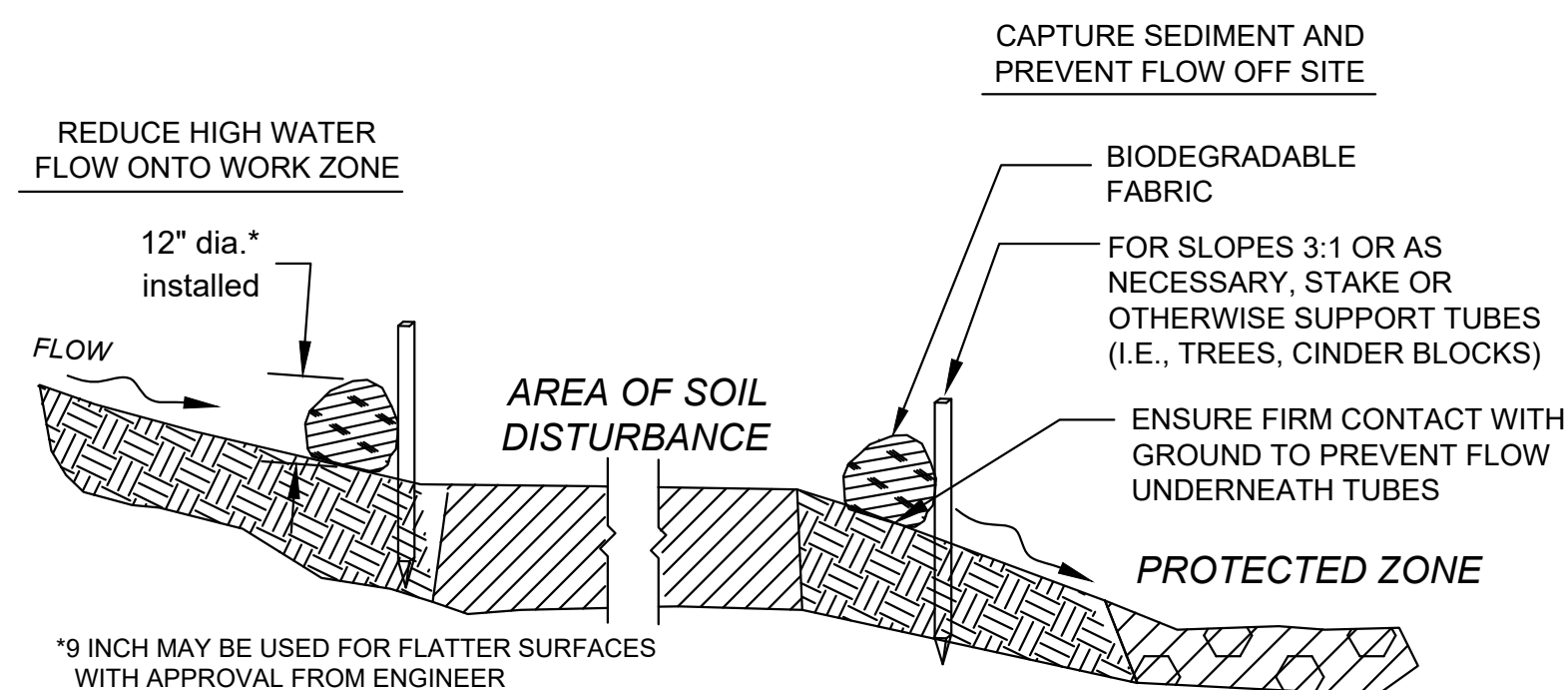
FOR USE ONLY ON SLOPES UP TO 5% AND WITH APPROVAL OF THE ENGINEER. NOT TO BE USED FOR WETLAND MITIGATION.



SECTION

12 INCH STRAW WATTLE

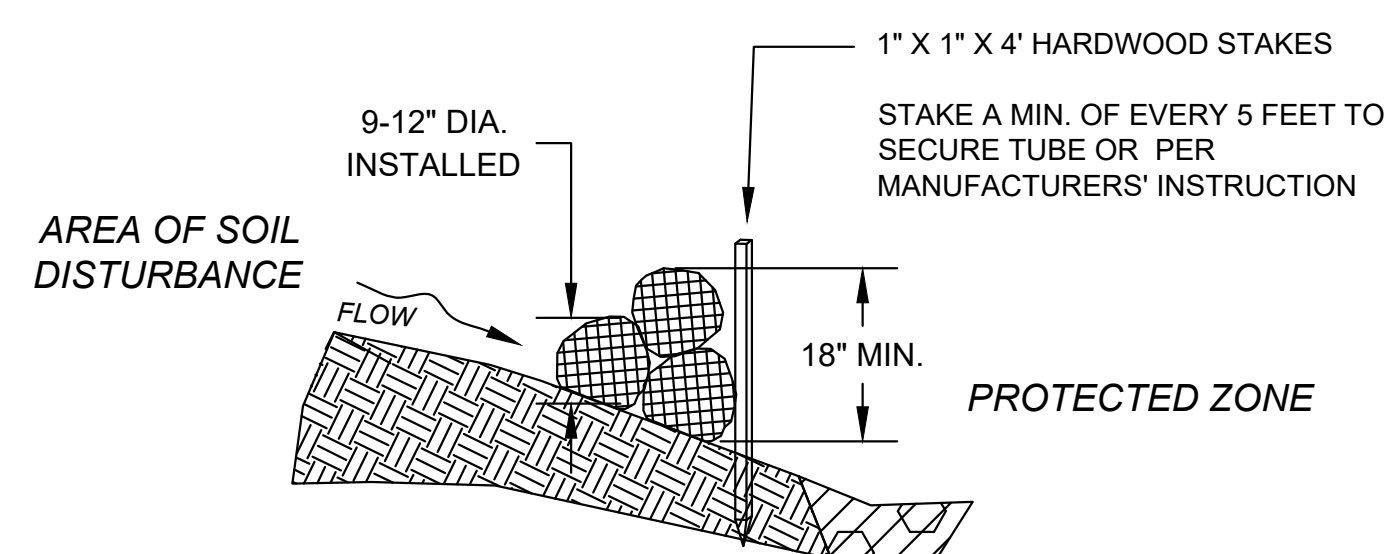
NOT TO SCALE



SECTION

SEDIMENT BARRIER - COMPOST FILTER TUBE

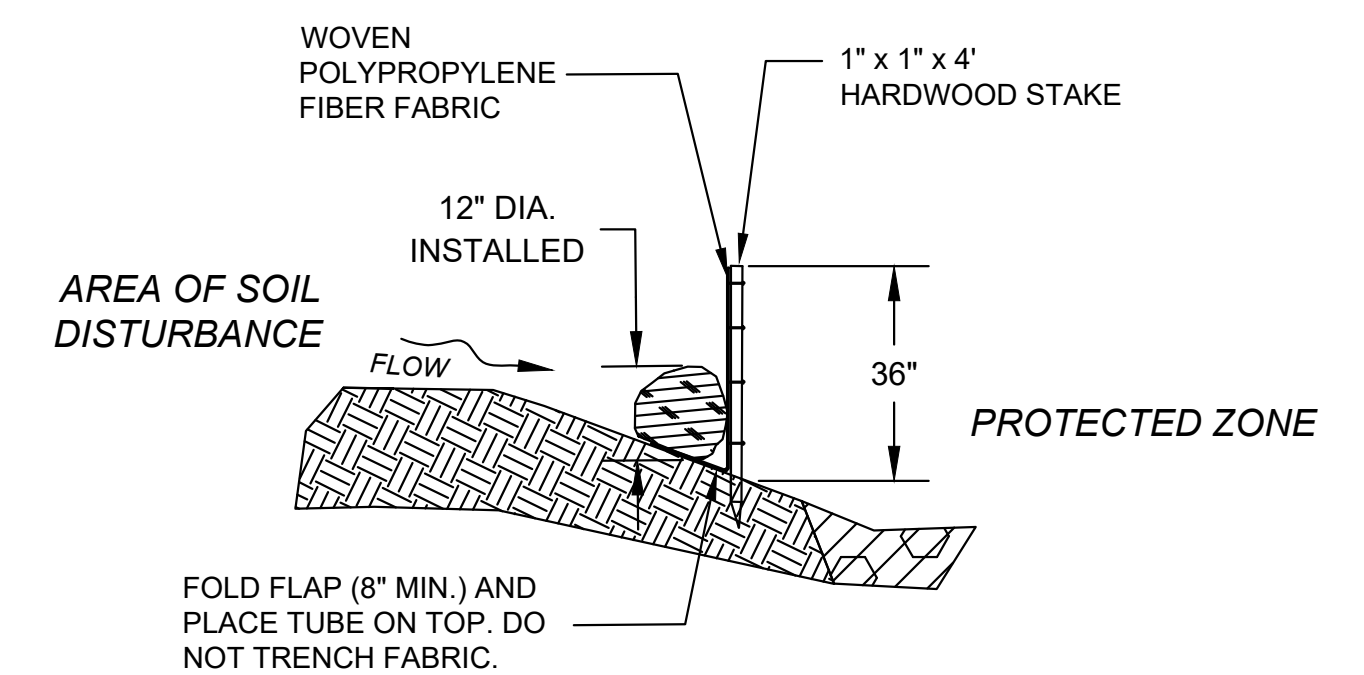
NOT TO SCALE



SECTION

COMPOST FILTER TUBES STACKED

NOT TO SCALE



SECTION

COMPOST FILTER TUBE & SILT FENCE

NOT TO SCALE

NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

DRAWN BY: SD
DESIGNED BY: BB
CHECKED BY: TW

REGISTERED PROFESSIONAL
Not for Construction



PREPARED BY
SUBCONSULTANT

SCALE
NONE

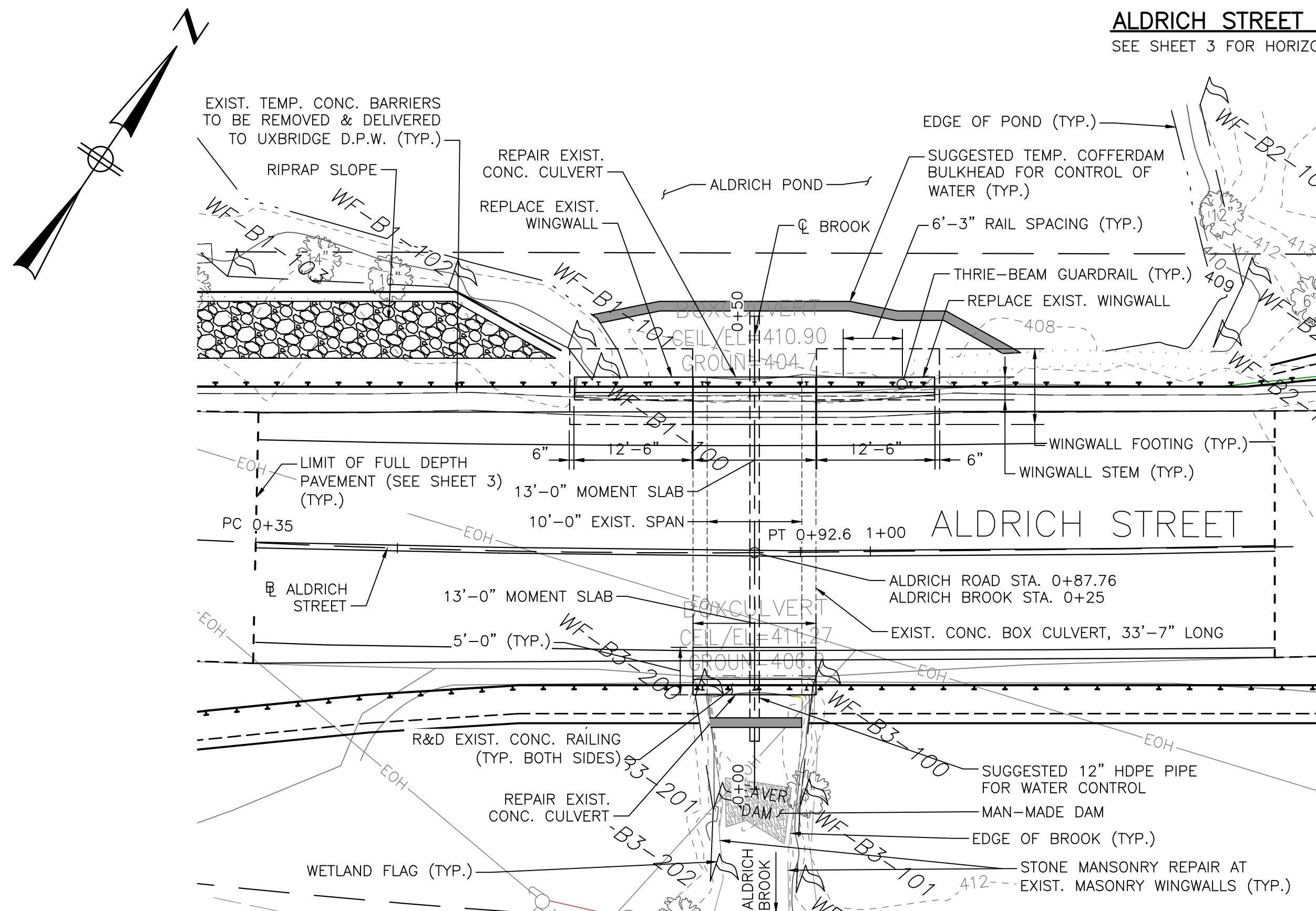
TITLE
**Aldrich Street Bridge Improvements
Uxbridge, Massachusetts
CONSTRUCTION DETAILS**

BETA JOB NO. 7545
ISSUE DATE
SHEET NO. 4

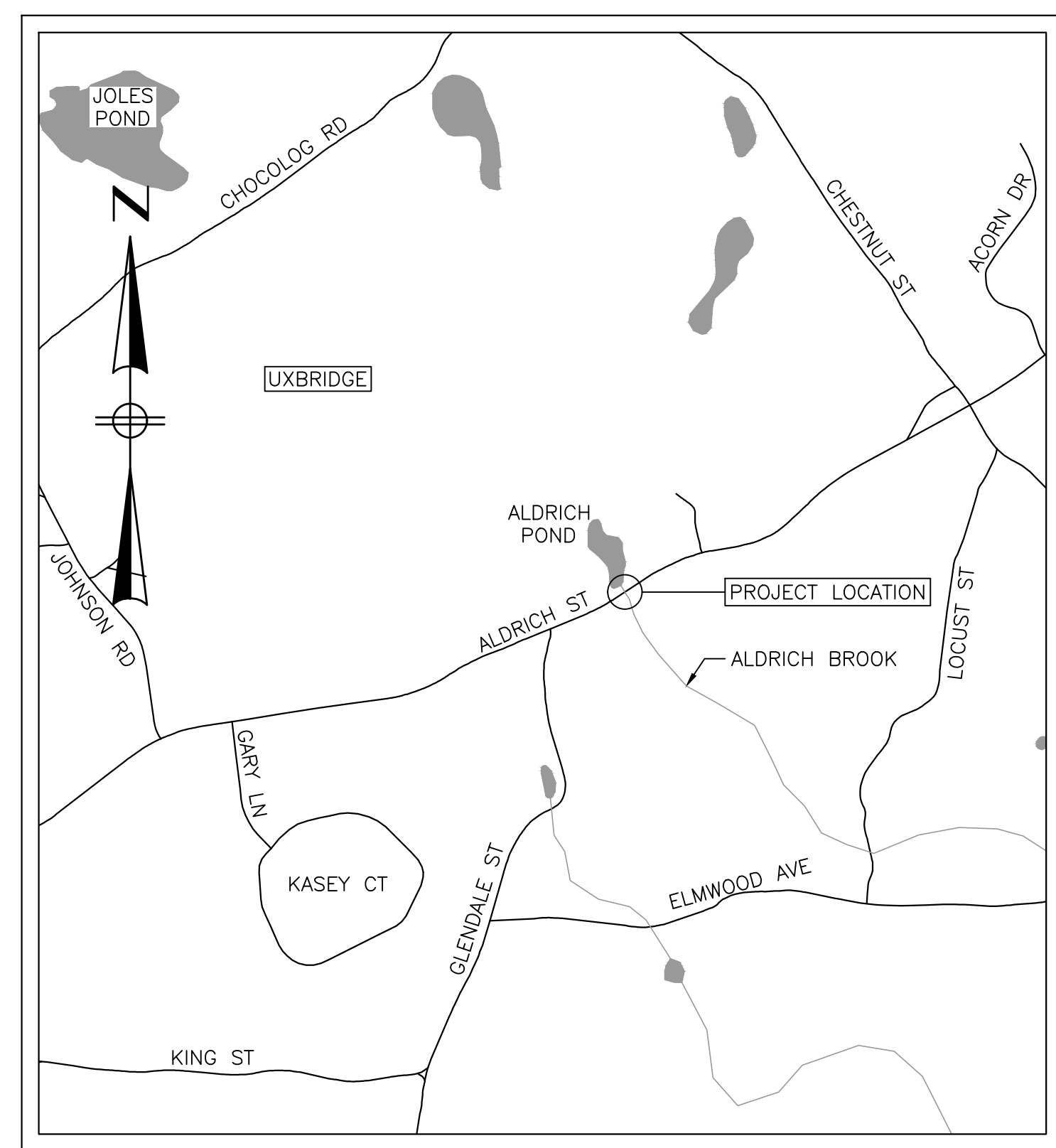
BRIDGE NO. U-02-038

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

ALDRICH STREET CURVE DATA
SEE SHEET 3 FOR HORIZONTAL CURVE DATA



KEY PLAN
SCALE: 1/32" = 1'-0"



LOCUS
SCALE: 1" = 1000'

GENERAL NOTES	
PROJECT FILE NO.:	NA
PROJECT DESCRIPTION:	PROPOSED BRIDGE PRESERVATION
BRIDGE DESIGN LOADING:	HL-93
SURVEY:	GOLDSMITH, PREST & RINGWALL, INC.
ELEVATION REFERENCE:	NAVD OF 1988

BENCHMARK: MAG-NAIL
LOCATION: UP #54
NORTHING: 2835131.87
EASTING: 617892.66
ELEVATION: 413.54'

HYDRAULIC DESIGN DATA
DRAINAGE AREA: 0.67 SQUARE MILES
DESIGN FLOOD DISCHARGE: UNK CUBIC FEET PER SECOND
DESIGN FLOOD FREQUENCY: UNK YEARS
DESIGN FLOOD VELOCITY: UNK FEET PER SECOND
DESIGN FLOOD ELEVATION: UNK FEET, NAVD

BASE (100-YEAR) FLOOD DATA
BASE FLOOD DISCHARGE: UNK CUBIC FEET PER SECOND
BASE FLOOD ELEVATION: UNK 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: UNKNOWN
EVIDENCE OF SCOUR AND EROSION: UNKNOWN
DESIGN:
IN ACCORDANCE WITH THE 2020 9TH EDITION AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR HL-93 LOADING.
GENERAL:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING, COORDINATING, AND VERIFYING ALL DIMENSIONS.

THE CONTRACTOR SHALL COORDINATE ALL EXISTING UTILITY LOCATIONS.

ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE MASSDOT STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGES-2022 EDITION.

THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER WHEN, IN THE COURSE OF CONSTRUCTION, CONDITIONS ARE UNCOVERED WHICH ARE UNANTICIPATED OR OTHERWISE APPEAR TO PRESENT A DANGEROUS CONDITION.

FOR DIMENSIONS AND DETAILS NOT SHOWN, REFER TO HIGHWAY DRAWINGS.

NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988 IS USED THROUGHOUT. FOUNDATIONS:

FOOTING SHALL BE FOUNDED ON UNDISTURBED INORGANIC SOIL. THE ELEVATION OF FOOTING SHALL BE SUCH THAT IT DOES NOT FALL WITHIN A ONE VERTICAL TO TWO HORIZONTAL SLOPE FROM THE BASE OF ANY ADJACENT FOOTING OR UTILITY.

BEARING SOIL SHALL BE INSPECTED BEFORE FOUNDATION CONSTRUCTION. NO FOOTING CONCRETE SHALL BE PLACED IN WATER OR ON FROZEN SUBGRADE MATERIAL.

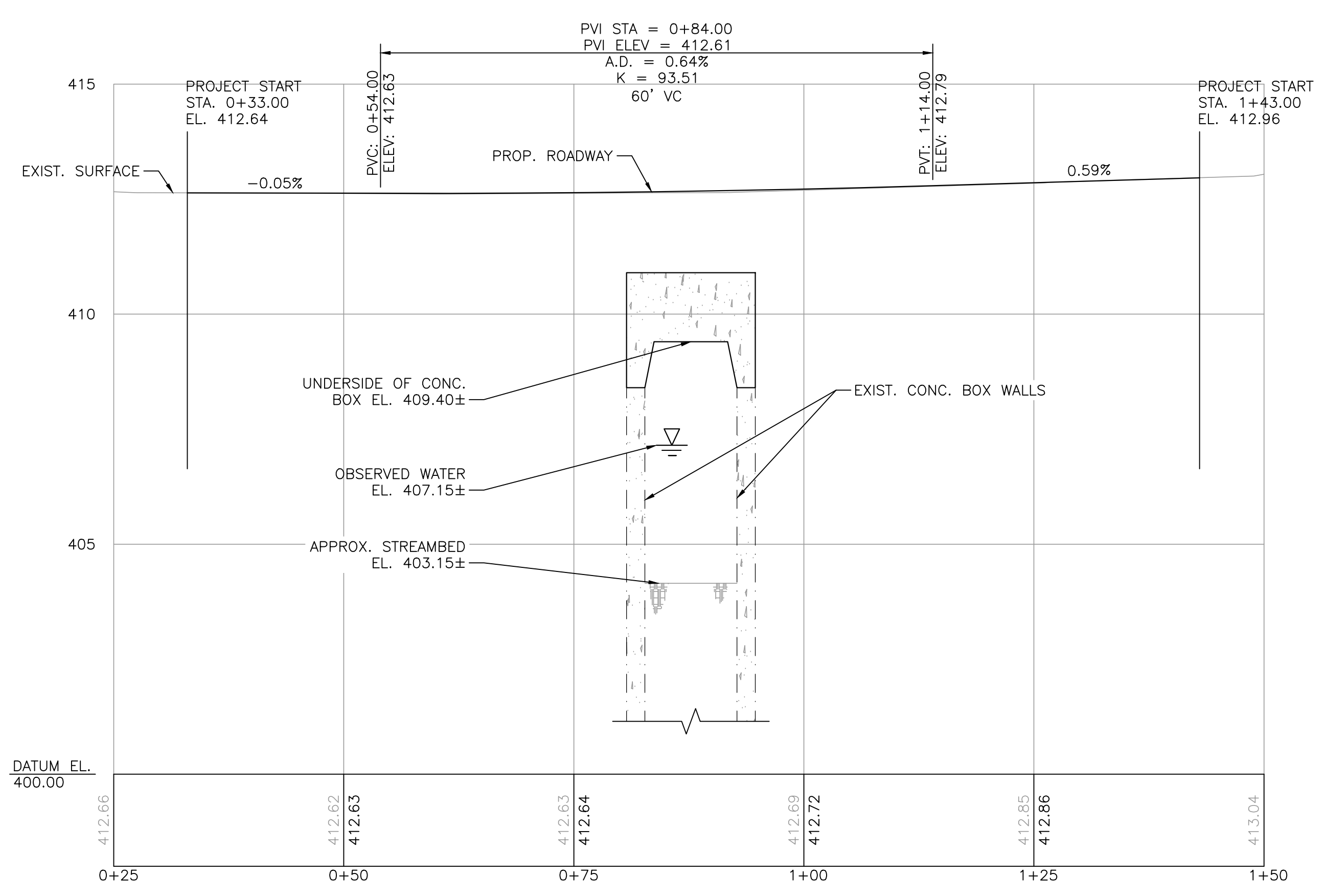
NO BACKFILL SHALL BE PLACED AGAINST WALL OR MOMENT SLAB UNTIL THE CONCRETE HAS ATTAINED A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI.

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE TEMPORARY SUPPORT AND DEWATERING AS NECESSARY DURING EXCAVATION TO MAINTAIN THE INTEGRITY OF EXISTING STRUCTURES, ACTIVE UTILITIES, AND STREETS.

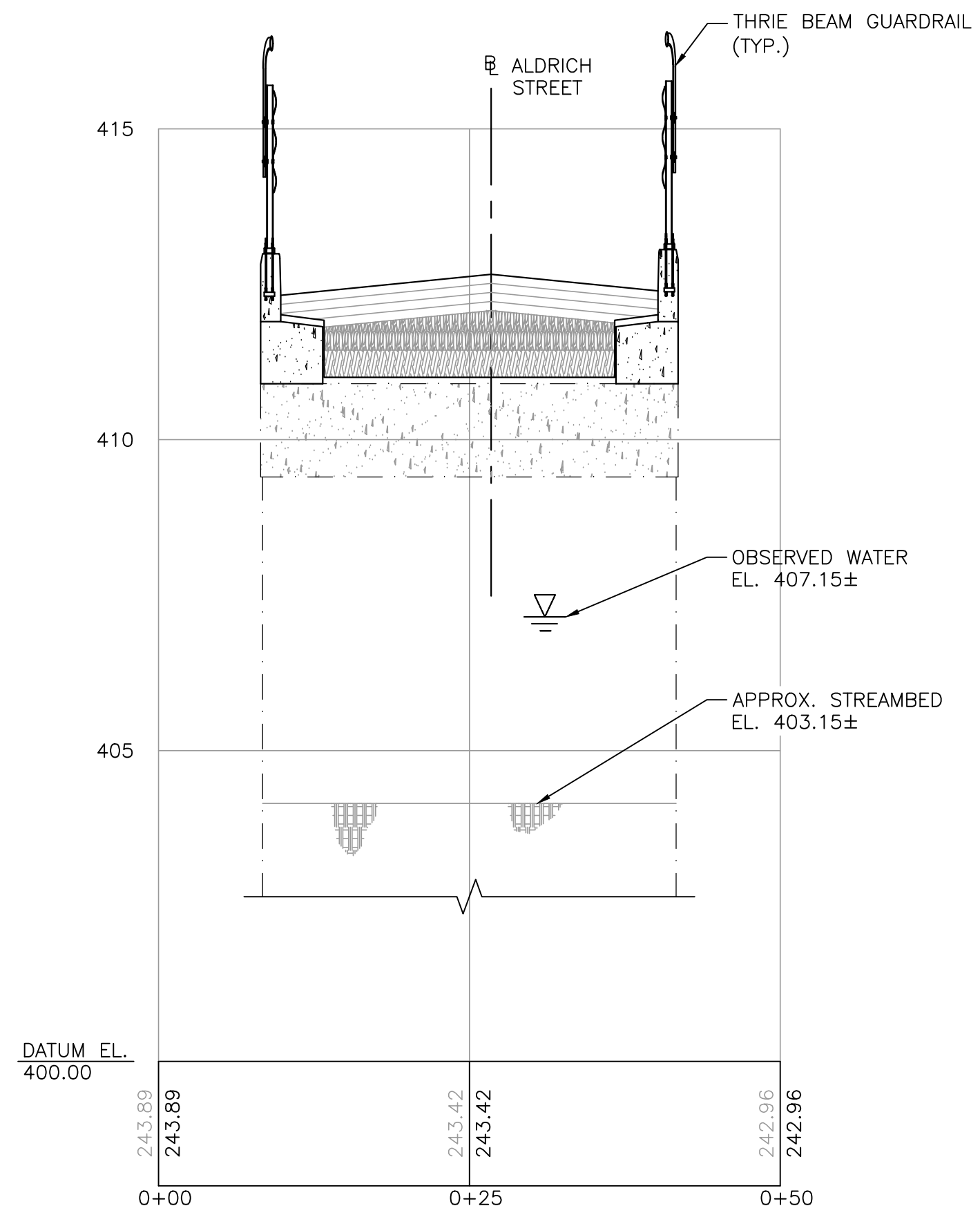
WALL FOOTINGS SHALL BE UNDERLAIN BY A MINIMUM ONE FOOT OF COMPACTED GRAVEL BORROW COMPACTED IN 6" LIFTS TO 95% OF THE MAXIMUM DRY DENSITY. REINFORCEMENT:

ALL REINFORCING STEEL SHALL BE EPOXY COATED AND SHALL COFORM TO THE REQUIREMENTS OF AASHTO M 31 GRADE 60. CONCRETE:

ALL CONCRETE SHALL BE 4000 PSI - 1 1/2" -565 LB/CY HP.



ALDRICH STREET PROFILE
HORIZONTAL SCALE: 1/32" = 1'-0"
VERTICAL SCALE: 1/32" = 1'-0"



ALDRICH BROOK PROFILE
HORIZONTAL SCALE: 1/32" = 1'-0"
VERTICAL SCALE: 1/32" = 1'-0"

4/5/2022 3:40 PM I:\BETA\IN\BDR01\UXBRIDGE\7546 - UXBRIDGE - SMALL BRIDGE CONTRACT\DRAWING FILES\PLANSET\7546_SR(COVERSHEET)-ALDRICH.DWG (BETA STB.BW.STB)

NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

DRAWN BY:	BN
DESIGNED BY:	TW
CHECKED BY:	TW

REGISTERED PROFESSIONAL
PREPARED BY



SUBCONSULTANT

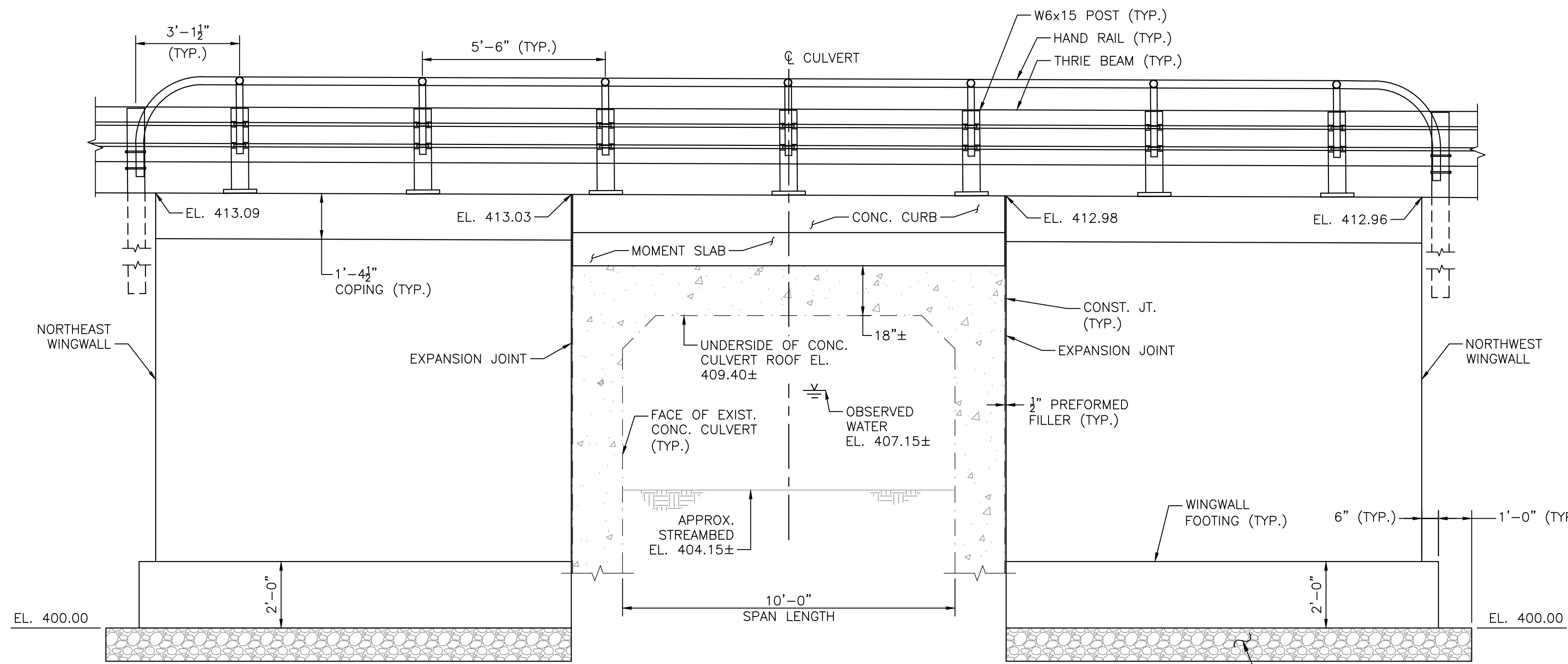
SCALE
AS SHOWN

TITLE
Aldrich Street Bridge Improvements
Uxbridge, Massachusetts
BRIDGE COVER SHEET

BRIDGE NO. 0-02-038

BETA JOB NO. 7545
ISSUE DATE
SHEET NO. 5

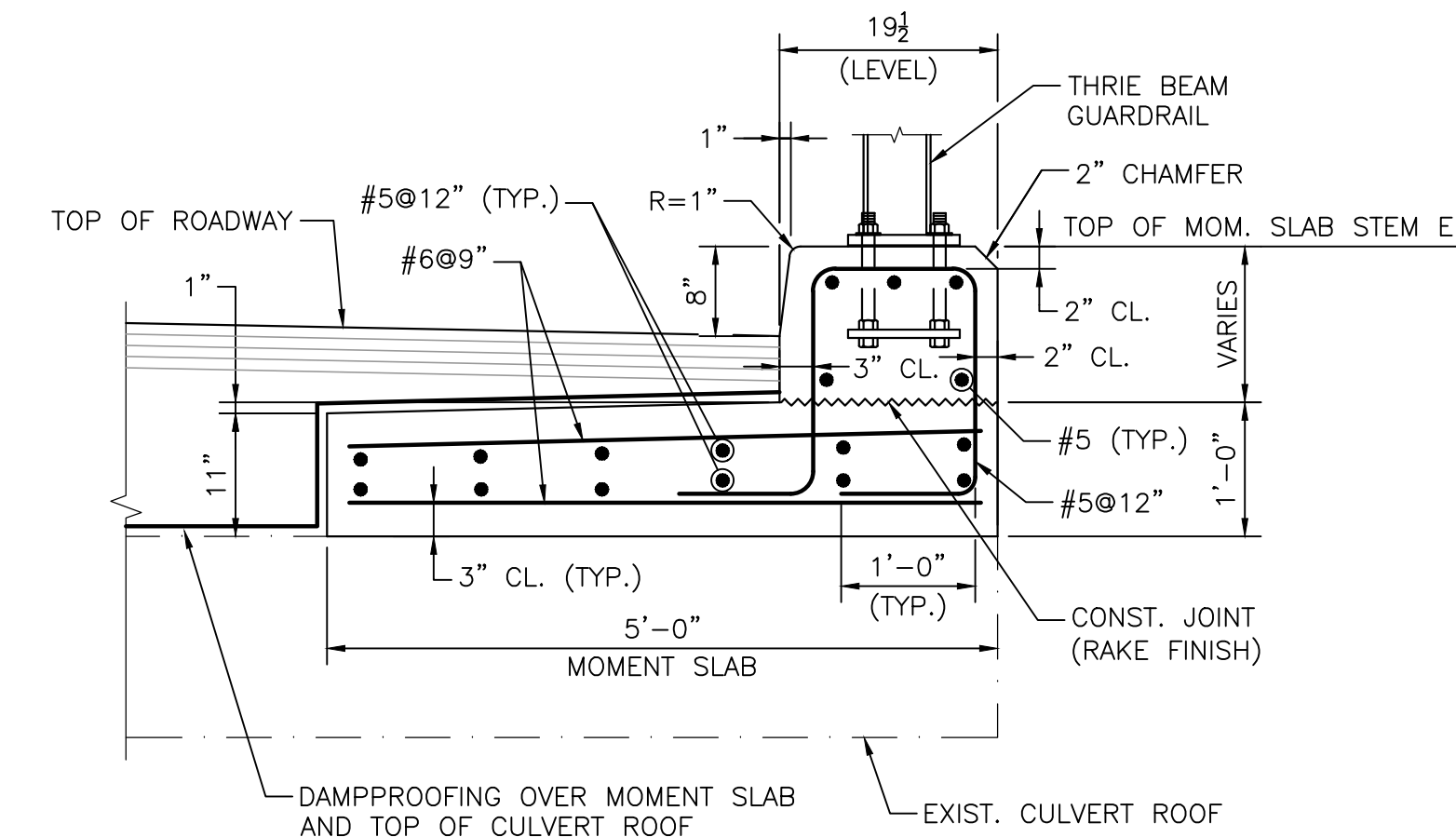
UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION



NORTH BRIDGE ELEVATION (LOOKING SOUTH)

SCALE: $\frac{1}{8}'' = 1'-0''$

NOTE: COFFERDAM SHALL BE INSTALLED PRIOR TO WINGWALL CONSTRUCTION



MOMENT SLAB SECTION

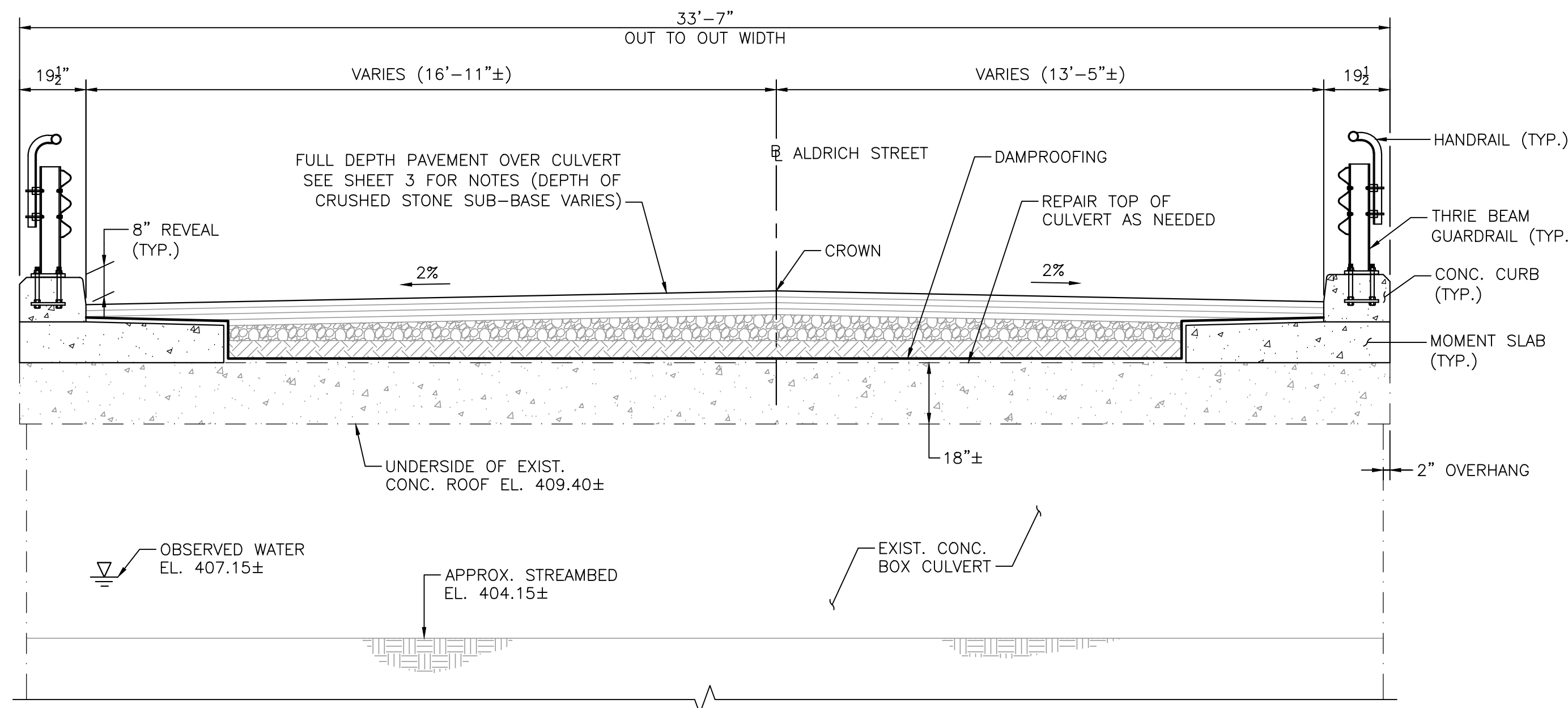
SCALE: $\frac{1}{4}'' = 1'-0''$

NOTE: ALL CONCRETE SHALL BE 4000 PSI, $1\frac{1}{2}$ IN, 565 CEMENT CONCRETE.

WINGWALL NOTES:

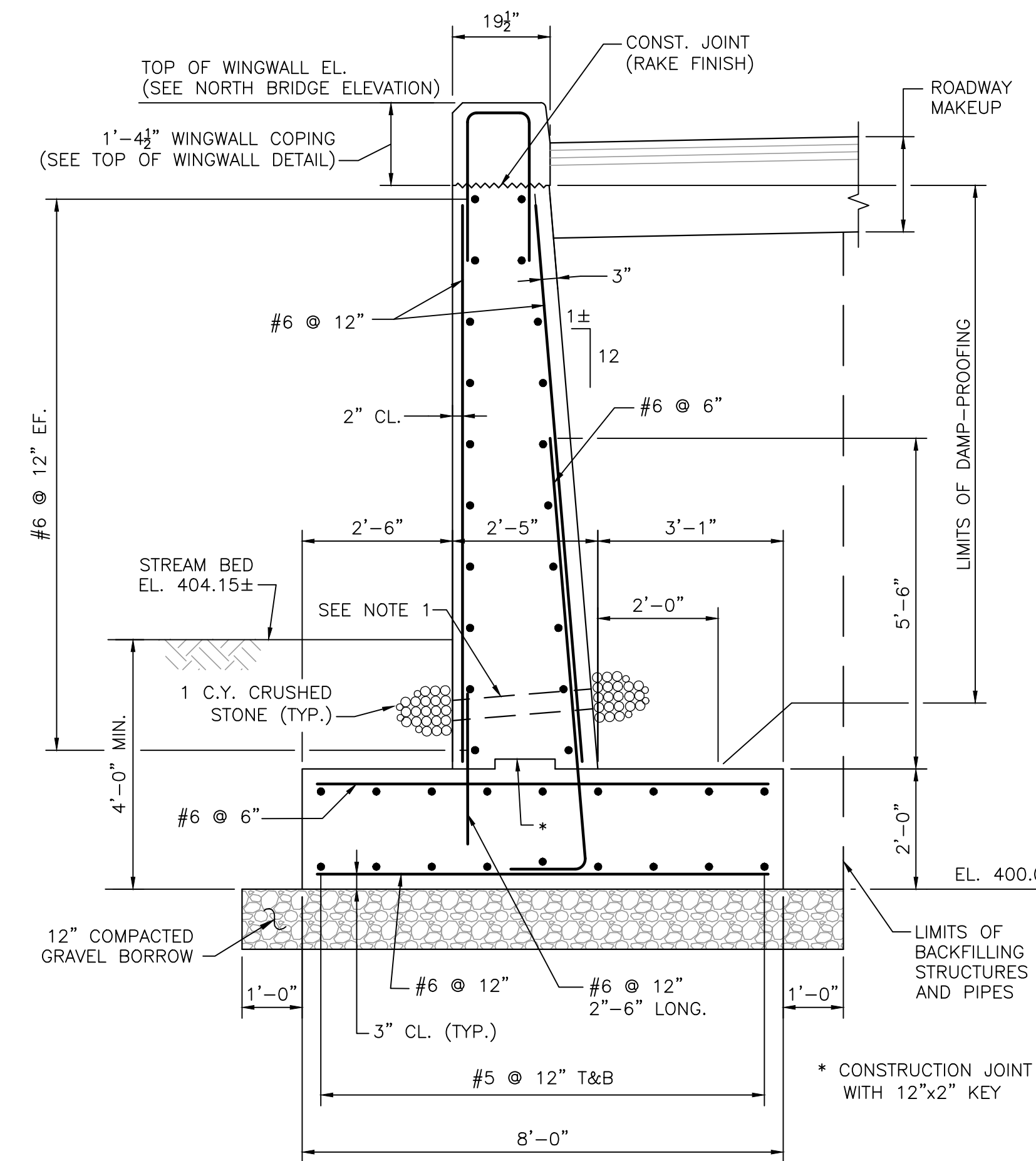
- 4" ϕ WEEP HOLES 10'-0" O.C. LOCATED 12" ABOVE THE HEEL OF THE FOOTING, SLOPING 1" PER FOOT TOWARDS THE FRONT FACE. PROVIDE 1 CUBIC YARD OF CRUSHED STONE AT EACH END OF WEEP HOLE.
- ALL CONCRETE SHALL BE 4000 PSI, $1\frac{1}{2}$ IN, 565 CEMENT CONCRETE.
- THE FACTORED BEARING PRESSURE = 1.94 KSF AS PER AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS STRENGTH I LOAD COMBINATION.
- THE FACTORED BEARING RESISTANCE = 3.53 KSF. FACTORED BEARING RESISTANCE IS THE PRODUCT OF THE NOMINAL BEARING RESISTANCE AND A RESISTANCE FACTOR OF 0.45.

TOP OF MOMENT SLAB STEM ELEVATION		
LOCATION	APPROX. STATION	ELEVATION
NORTH	0+81.2	412.98
	0+94.5	413.03
SOUTH	0+81.3	413.06
	0+94.1	413.09



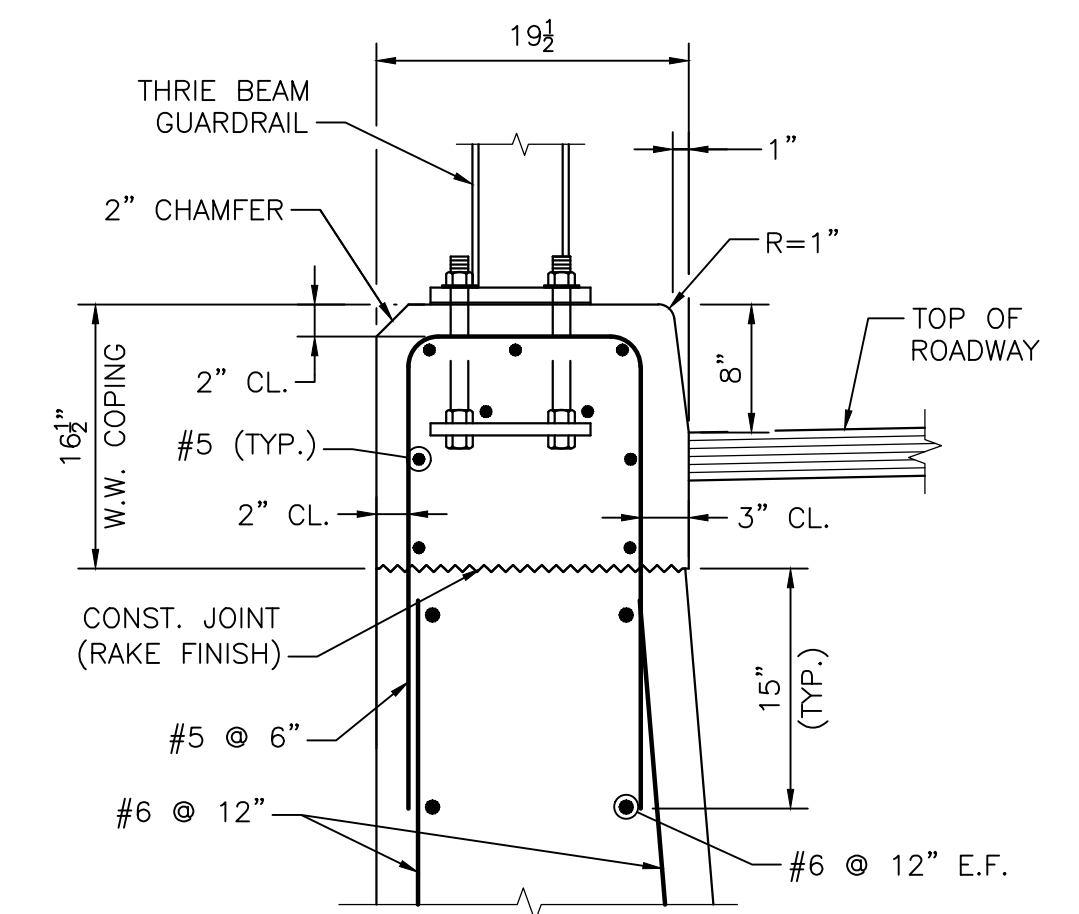
TRANSVERSE BRIDGE SECTION

SCALE: $\frac{1}{8}'' = 1'-0''$



TYPICAL WINGWALL SECTION

SCALE: $\frac{1}{2}'' = 1'-0''$



TOP OF WINGWALL DETAIL

SCALE: 1" = 1'-0"

4/5/2022 3:41 PM \\BETA\IN\BDR01\UXBRIDGE\646 - UXBRIDGE - SMALL BRIDGE CONTRACT\DRAWING FILES\PLANSET\7545 - STRUCTURAL\DETAILS.DWG (BETA SITE BW.SBT)

NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

DRAWN BY:	BN
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CHECKED BY:	TW

REGISTERED PROFESSIONAL
PREPARED BY

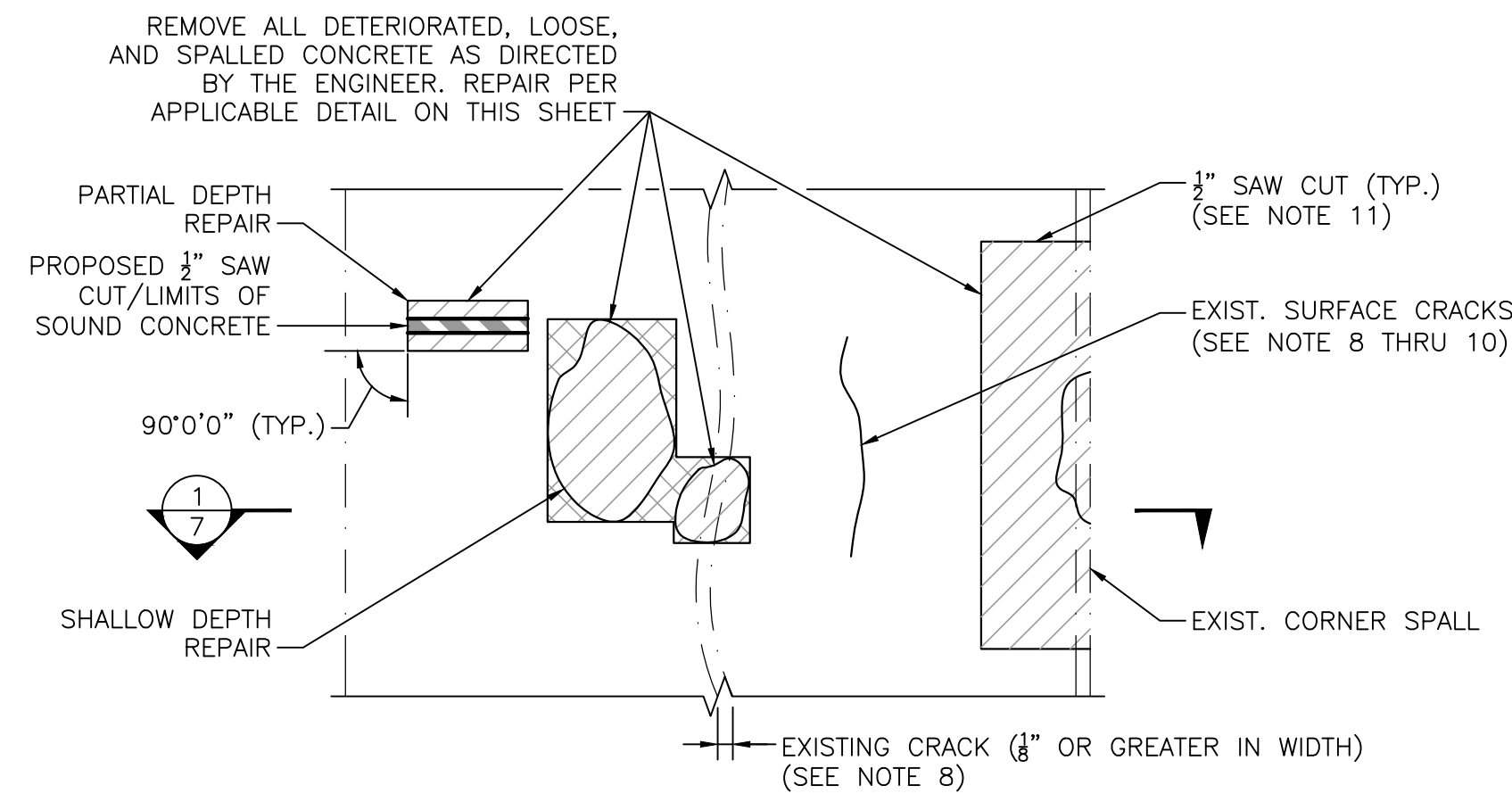


SUBCONSULTANT

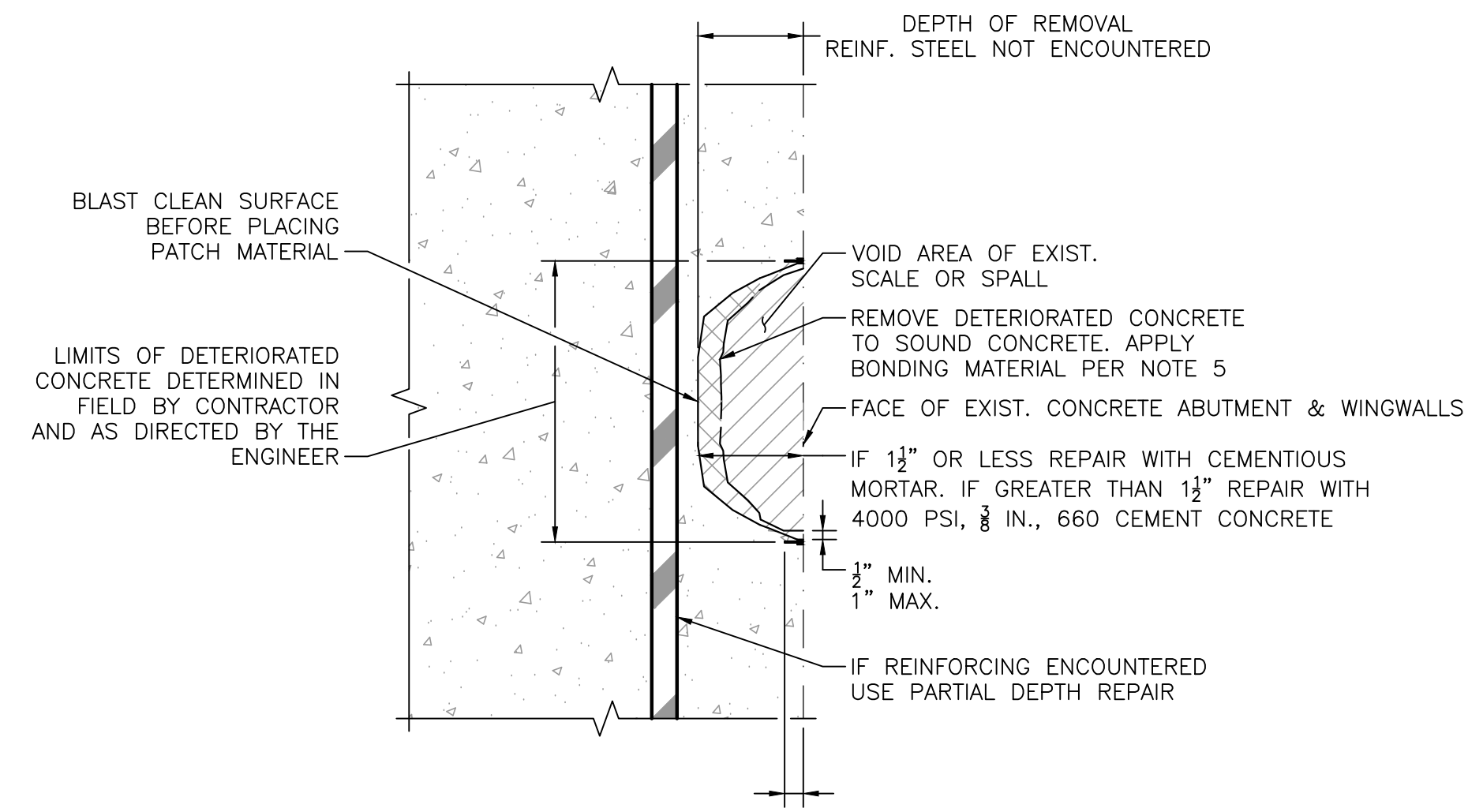
SCALE
AS SHOWN

TITLE
Aldrich Street Bridge Improvements
Uxbridge, Massachusetts
STRUCTURAL DETAILS

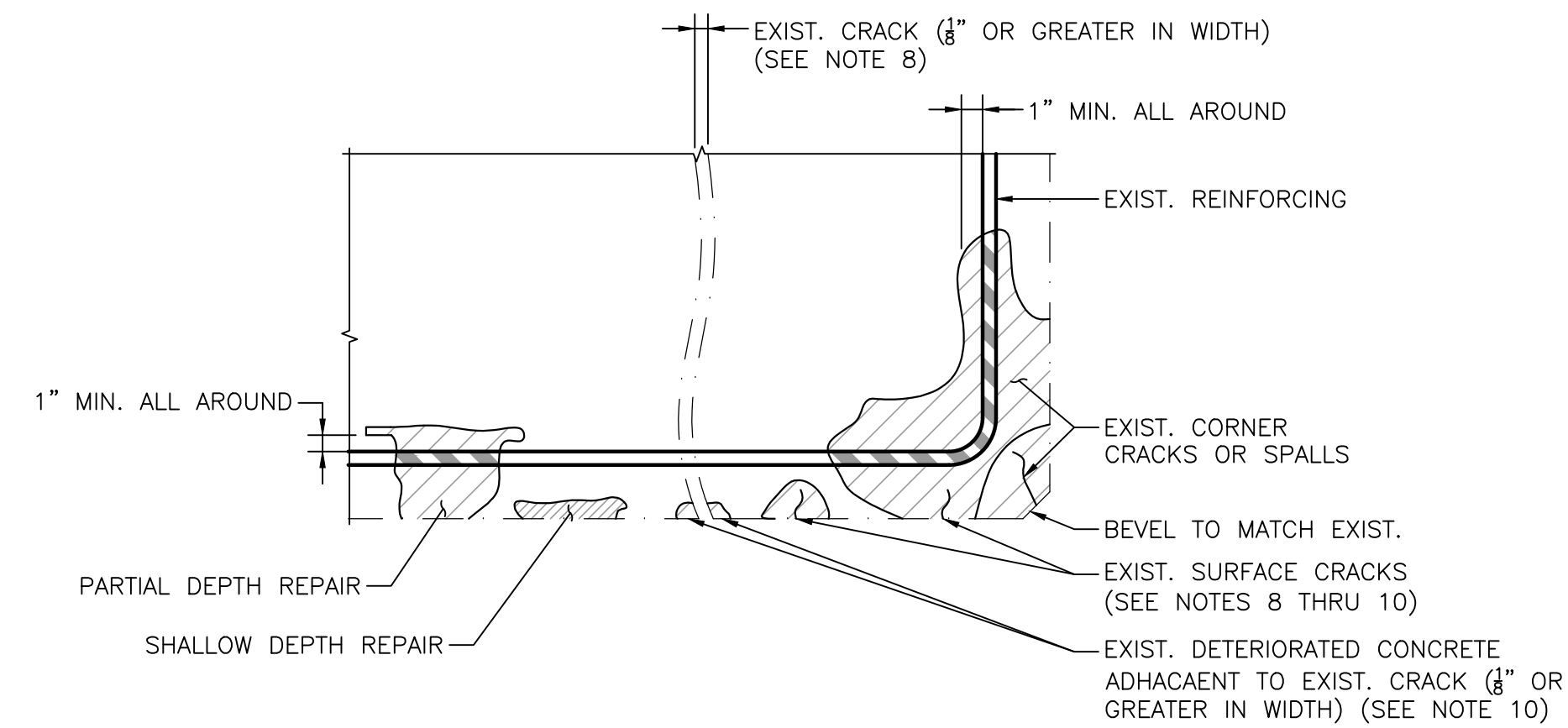
BETA JOB NO. 7545
ISSUE DATE
SHEET NO. 6



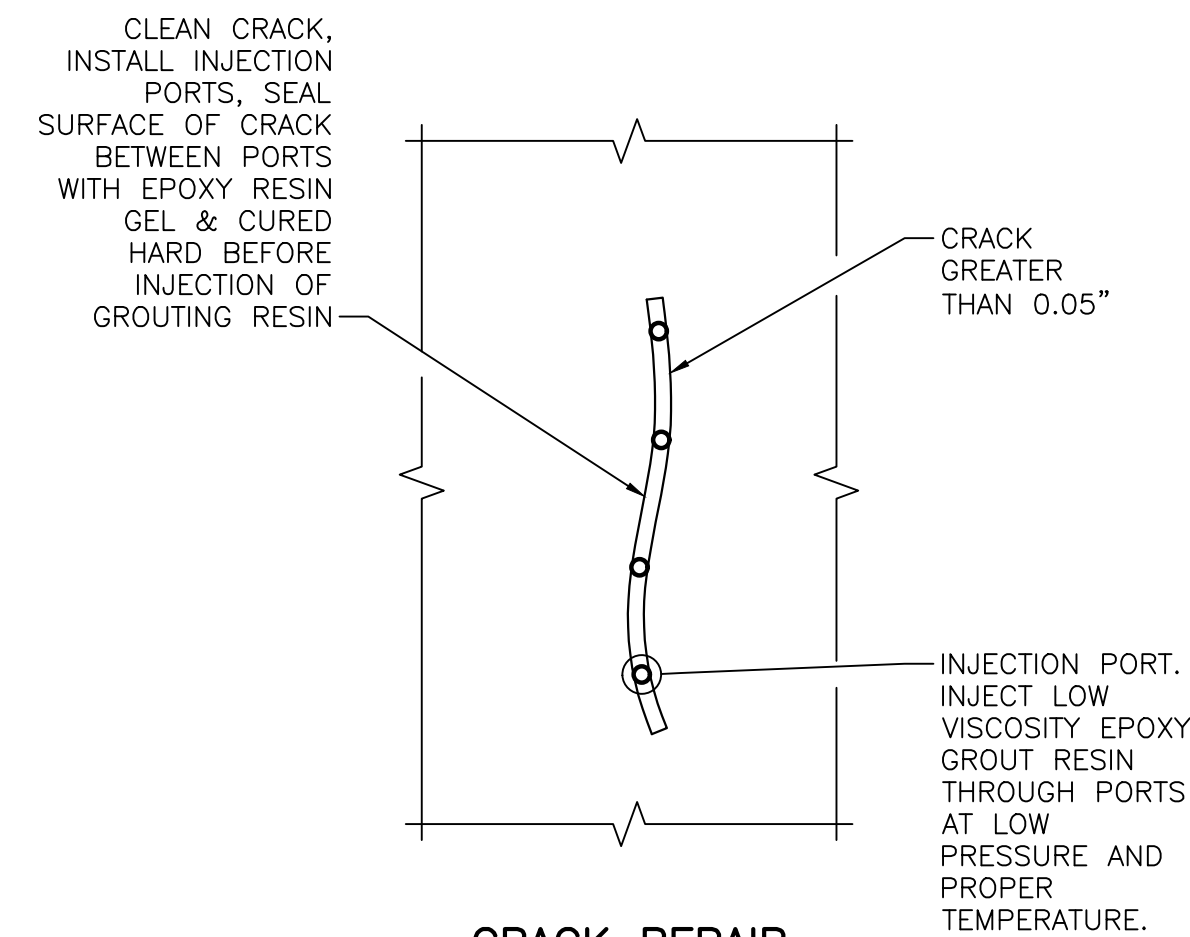
GENERAL ELEVATION
NOT TO SCALE



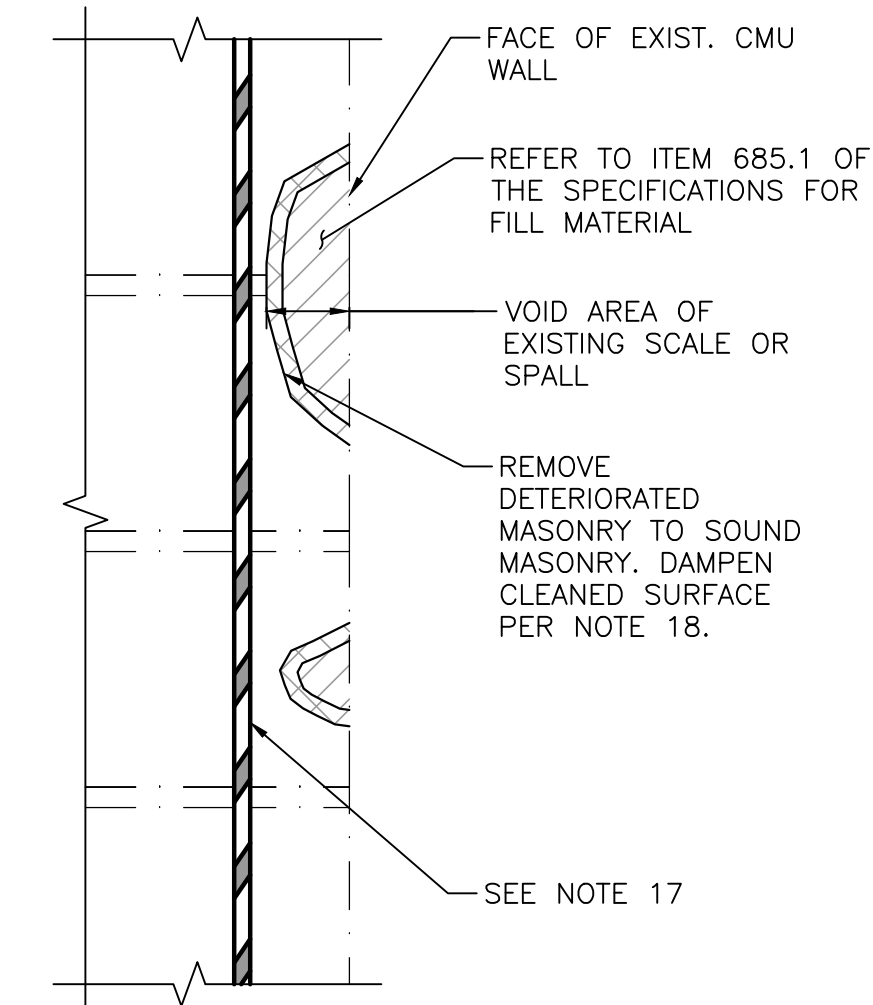
SHALLOW DEPTH REPAIR DETAIL
NOT TO SCALE



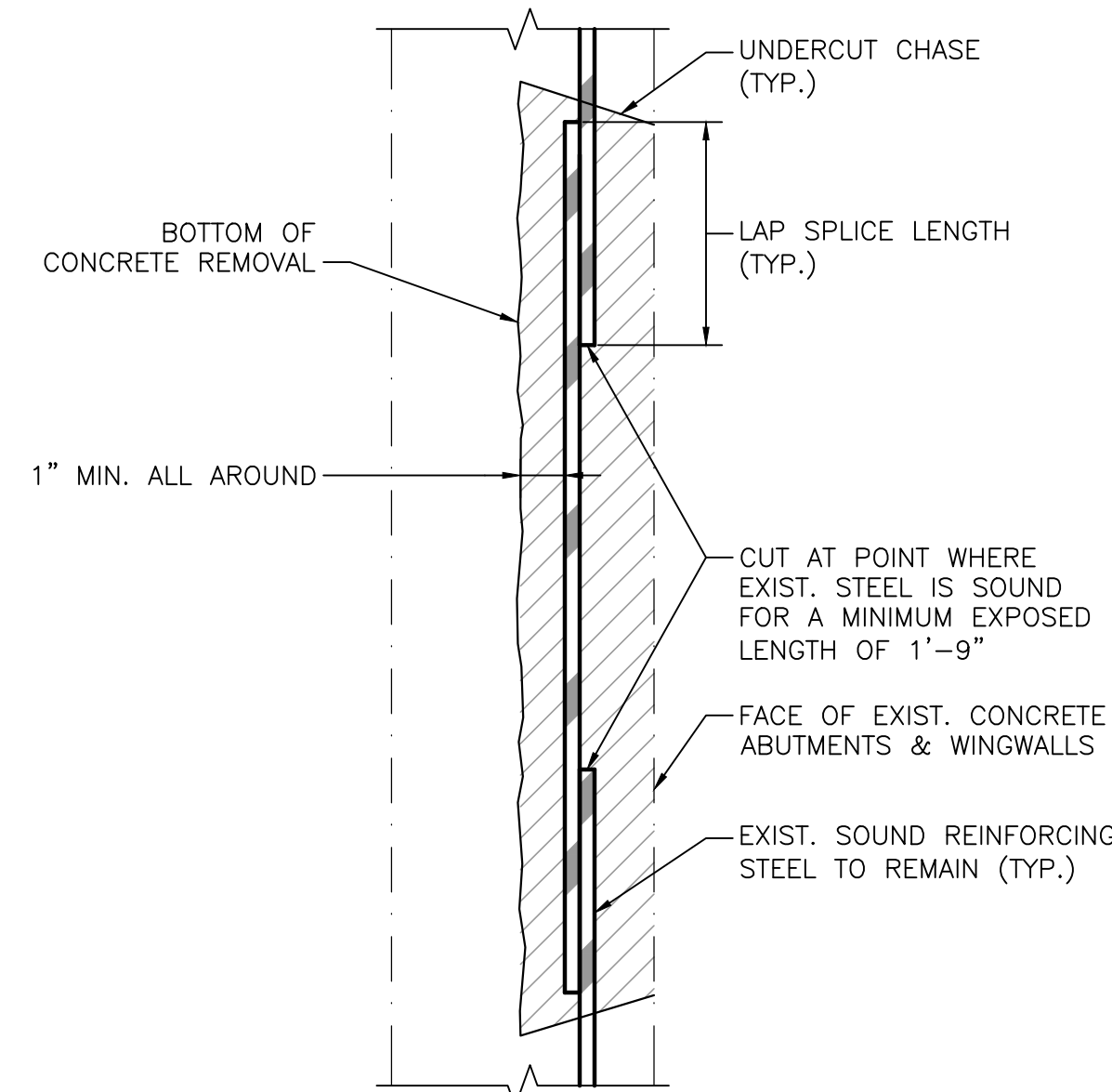
SECTION
NOT TO SCALE



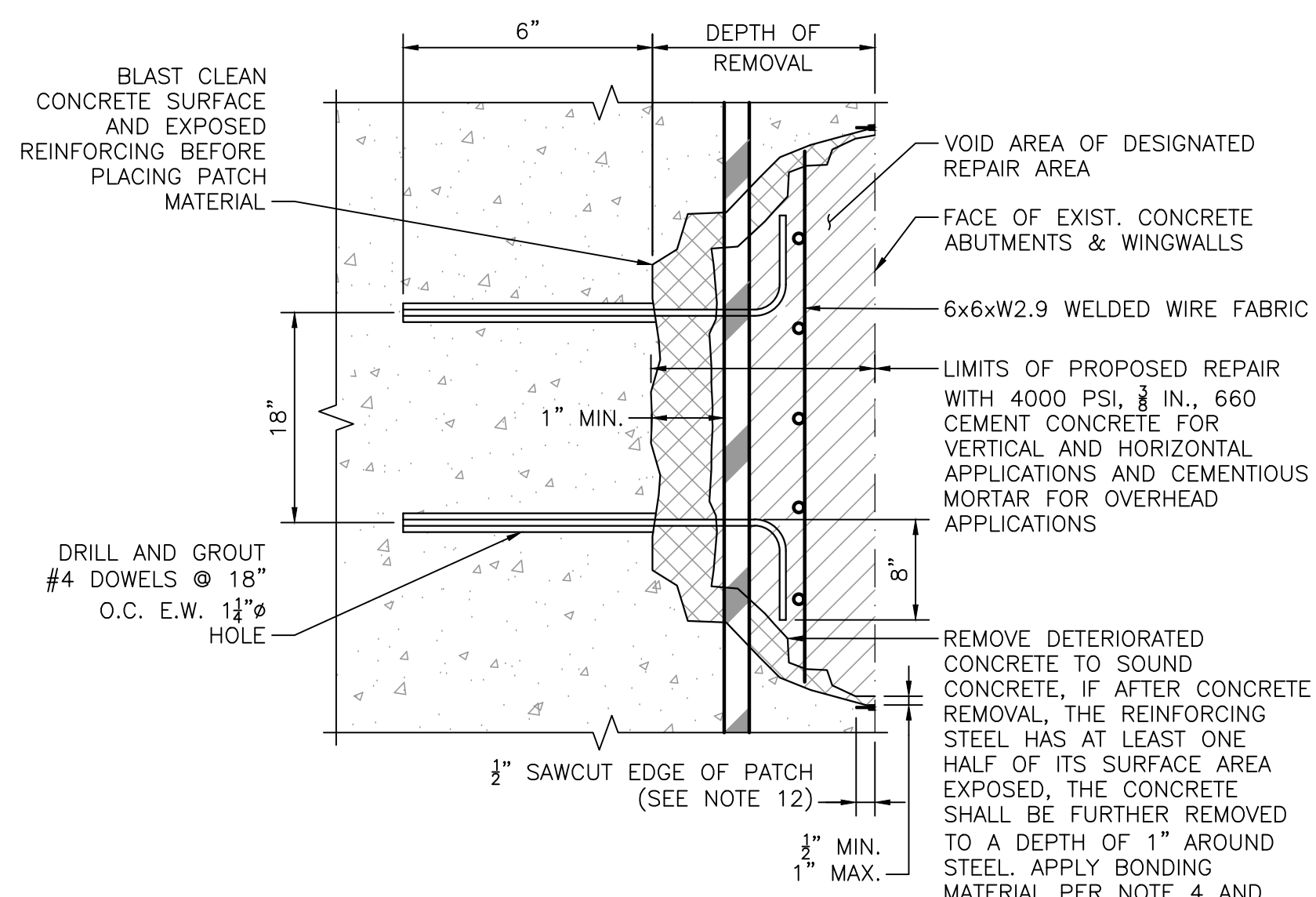
CRACK REPAIR
NOT TO SCALE



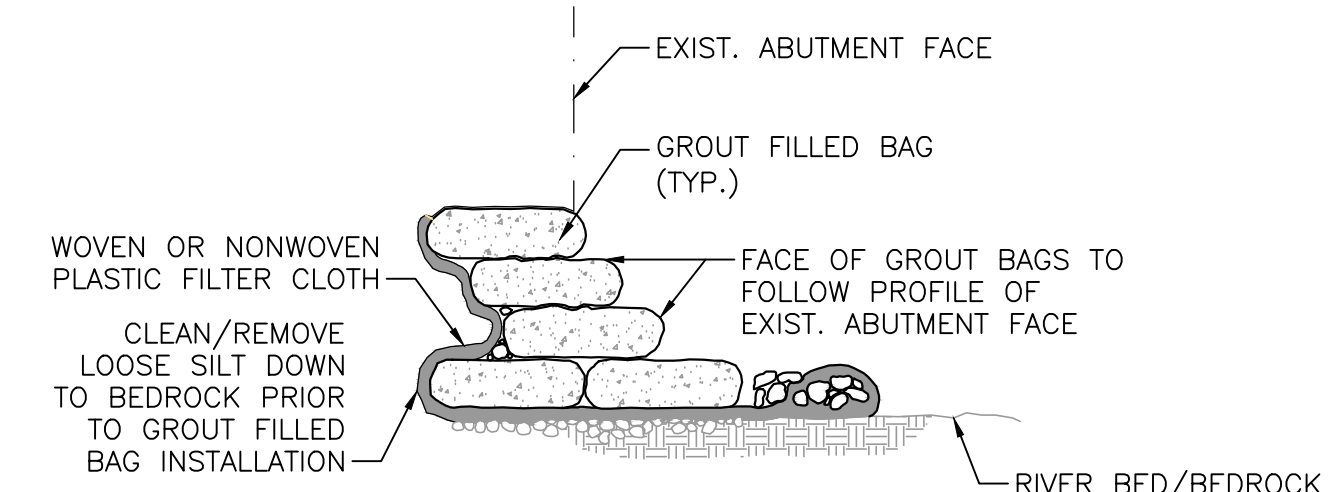
TYPICAL CMU WALL REPAIR
NOT TO SCALE



REINFORCING REPLACEMENT DETAIL
NOT TO SCALE



PARTIAL DEPTH REPAIR DETAIL
NOT TO SCALE



GROUT FILLED BAG REVETMENT DETAIL
NOT TO SCALE

LEGEND:

- DETERIORATED CONCRETE TO BE REMOVED.
- REINFORCING STEEL.
- ADDITIONAL CONCRETE TO BE REMOVED.

CONCRETE REPAIR NOTES:

1. THE ACTUAL LOCATIONS AND EXTENT OF VARIOUS TYPES OF CONCRETE REPAIR WILL BE DETERMINED IN THE FIELD. THE CONTRACTOR SHALL REPAIR ALL AREAS DETERMINED NECESSARY AS DIRECTED BY THE ENGINEER AFTER THE CONTRACTOR HAS SOUNDED AND MARKED OUT ALL REPAIR AREAS.
2. AREAS REQUIRING REPAIRS THAT ARE GREATER THAN 1 1/2" DEEP SHALL BE REPAIRED USING 4000 PSI, 3/8 IN., 660 CEMENT CONCRETE. AREAS LESS THAN 1 1/2" DEEP SHALL BE REPAIRED USING CEMENTITIOUS MORTAR FOR PATCHING.
3. IF DURING REMOVAL OF DETERIORATED CONCRETE, THE CONTRACTOR DAMAGES EXISTING REINFORCEMENT TO THE EXTENT REQUIRING REPLACEMENT, ANY ADDITIONAL CONCRETE REMOVAL, PATCHING MATERIAL, CLEANING EXISTING REINFORCING STEEL, AND FURNISHING AND INSTALLING REPLACEMENT REINFORCING STEEL SHALL BE AT THE CONTRACTOR'S EXPENSE, AND INSTALLED ACCORDING TO REINFORCING REPLACEMENT DETAIL ON THIS SHEET.
4. REINFORCEMENT, INCLUDING WELDED WIRE FABRIC, USED TO REPLACE EXISTING DETERIORATED REINFORCING STEEL (SECTION LOSS OF 15% OR MORE OF THE ORIGINAL CROSS SECTION, AS DETERMINED BY THE ENGINEER) SHALL BE EPOXY COATED. COST OF REPLACEMENT SHALL BE INCLUDED UNDER ITEM 910.1.
5. IMMEDIATELY PRIOR TO PLACING NEW CONCRETE OR MORTAR AGAINST EXISTING CONCRETE, CLEAN EXISTING SURFACES BY ABRASIVE BLASTING OR HIGH PRESSURE WATER BLASTING WITH WATER CONTAINING NO DETERGENTS OR BOND INHIBITING CHEMICALS AND APPLY APPROVED BONDING COMPOUND IMMEDIATELY PRIOR TO PLACING CONCRETE.
6. ALL EXISTING SURFACES THAT WILL HAVE NEW CONCRETE CAST AGAINST IT MUST BE ROUGHENED TO A MINIMUM AMPLITUDE OF 1/4 INCH.
7. CONCRETE REPAIR WORK INCLUDES REMOVING ALL DETERIORATED, LOOSE, SPALLED, POPCORNERED AND MAP CRACKED CONCRETE. CONCRETE WHICH HAS SPALLED OR OTHERWISE DETERIORATED ADJACENT TO SURFACE CRACK SHALL BE REPAIRED.
8. CRACKS THAT ARE .05" OR GREATER IN WIDTH SHALL BE REPAIRED BY EPOXY INJECTION CRACK REPAIR.
9. CRACKS THAT ARE LESS THAN .05" IN WIDTH SHALL NOT BE REPAIRED UNLESS DIRECTED BY THE ENGINEER.
10. WHERE PATCHING AND EPOXY INJECTION WORK ARE ADJACENT, EPOXY INJECTION SHALL BE PERFORMED BEFORE PATCHING.
11. ALL DETERIORATED AREAS SHALL BE DELINEATED BY A 1/2" SAWCUT. THE COST OF SAWCUTTING SHALL BE INCLUDED UNDER ITEM 127.12.
12. ALL EXPOSED STEEL SHALL BE THOROUGHLY BLAST CLEANED TO A WHITE METAL FINISH AND COATED WITH EPOXY IN ACCORDANCE WITH AASHTO M284 (ASTM D3963). BLAST CLEANING AND EPOXY SHALL BE INCLUDED IN THE RESPECTIVE CONCRETE REPAIR ITEM.
13. ALL SURFACES SHALL BE RUBBED TO PRODUCE A SMOOTH FINISH. NO ADDITIONAL MATERIAL SHALL BE ADDED TO CONCRETE.

MASONRY REPAIR NOTES:

14. ANY OBJECTIONABLE CRACK SHOULD BE ANALYZED TO DETERMINE THE CAUSE AND ANY PREVIOUS CORRECTIVE MEASURES TAKEN TO PREVENT OR ACCOMMODATE THE MOVEMENT BEFORE ADDITIONAL REPAIRS ARE MADE.
15. WHERE CRACKING IS CONFINED PRIMARILY TO MORTAR JOINTS IT CAN BE READILY REPAIRED BY CONVENTIONAL TUCKPOINTING METHODS.
16. REMOVE ALL SPALLED AND UNSOUND MASONRY FROM AREA TO BE REPAIRED. IF RUSTY REINFORCING STEEL IS PRESENT IT MUST BE ABRASIVE BLASTED TO REMOVE RUST.
17. IF REINFORCING STEEL IS ENCOUNTERED, REMOVE ENOUGH MATERIAL TO COMPLETELY EXPOSE REINFORCING STEEL. ALL EXPOSED STEEL SHALL BE THOROUGHLY BLAST CLEANED TO A WHITE METAL FINISH AND COATED WITH EPOXY IN ACCORDANCE WITH ASTM D3963. BLAST CLEANING AND EPOXY SHALL BE INCLUDED IN THE RESPECTIVE MASONRY REPAIR ITEM.
18. CLEAN SURFACE TO BE FREE OF ALL MATERIALS INCLUDING DUST, OIL, DIRT AND GREASE. DAMPEN WITH CLEAN WATER BEFORE PATCHING AND REMOVE STANDING WATER. REPAIR MORTAR SHALL BE TROWEL APPLIED TO DAMPENED SURFACE. AFTER INITIAL SET, THE MATERIAL SHALL BE TRIMMED AND SHAPED TO MATCH THE CONTOURS OF EXISTING PATCH AREA.
19. COST OF DRILLING AND GROUTING DOWELS SHALL BE CONSIDERED INCIDENTAL TO MASONRY REHABILITATION.
20. EXISTING MASONRY NEAR REPAIR LOCATIONS SHALL BE CLEANED WITH A HYDROCARBON SOLVENT TO REMOVE OIL AND GREASE. THE SURFACE SHALL THEN BE CLEANED WITH A TRISODIUM PHOSPHATE SOLUTION PRIOR TO APPLYING PAINT.

4/5/2022 3:41 PM \\BETA\IN\BDR01\UXBRIDGE\DRAWING FILES\PLANSET\7545_S\CONCRETE\REPAIR\DETAILS.DWG (BETA STB.BW.STB)

NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

DRAWN BY:	BN
DESIGNED BY:	TW
CHECKED BY:	TW

REGISTERED PROFESSIONAL
PREPARED BY



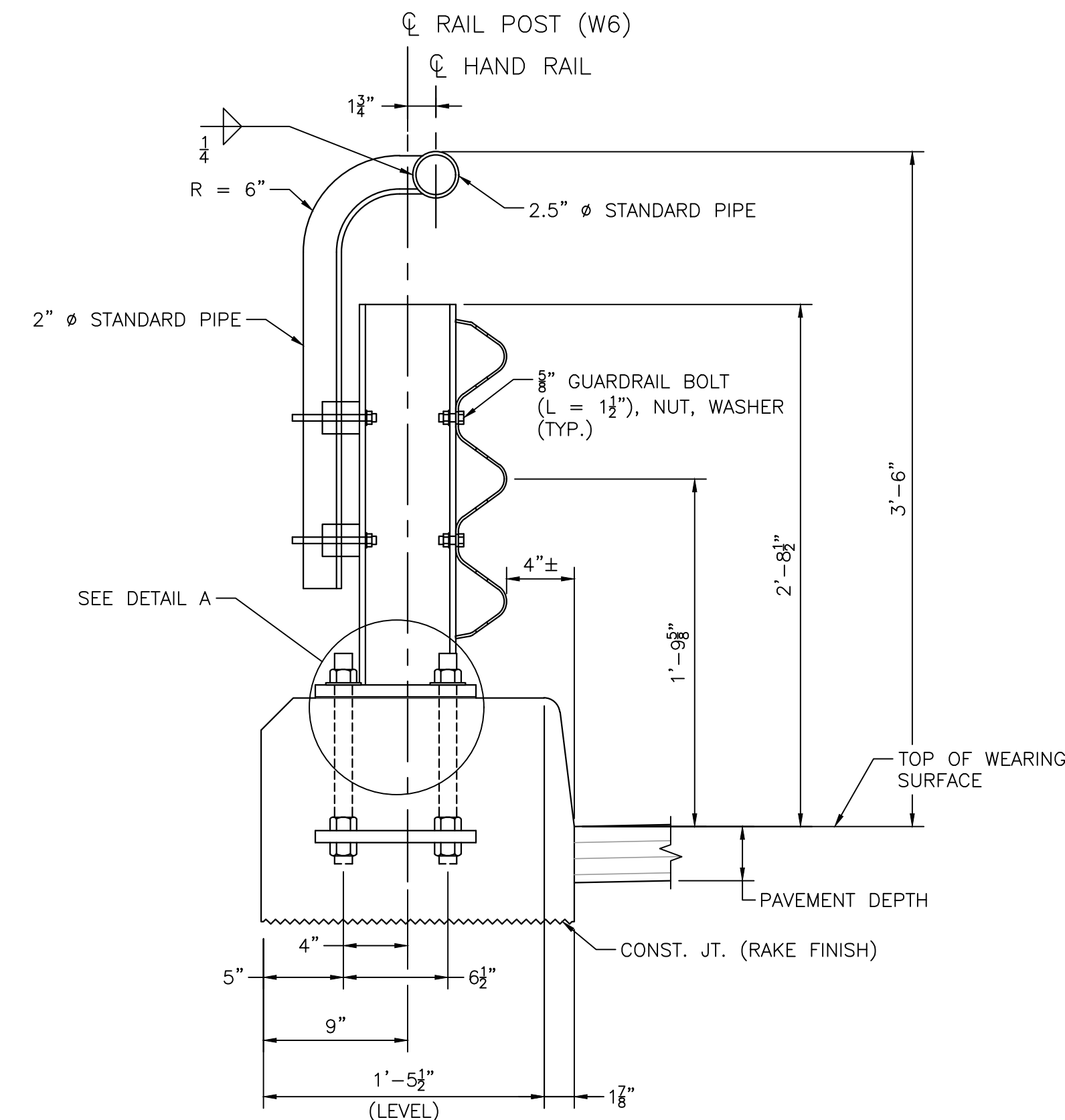
SUBCONSULTANT

SCALE
AS SHOWN

TITLE
Aldrich Street Bridge Improvements
Uxbridge, Massachusetts
CONCRETE & MASONRY REPAIR DETAILS

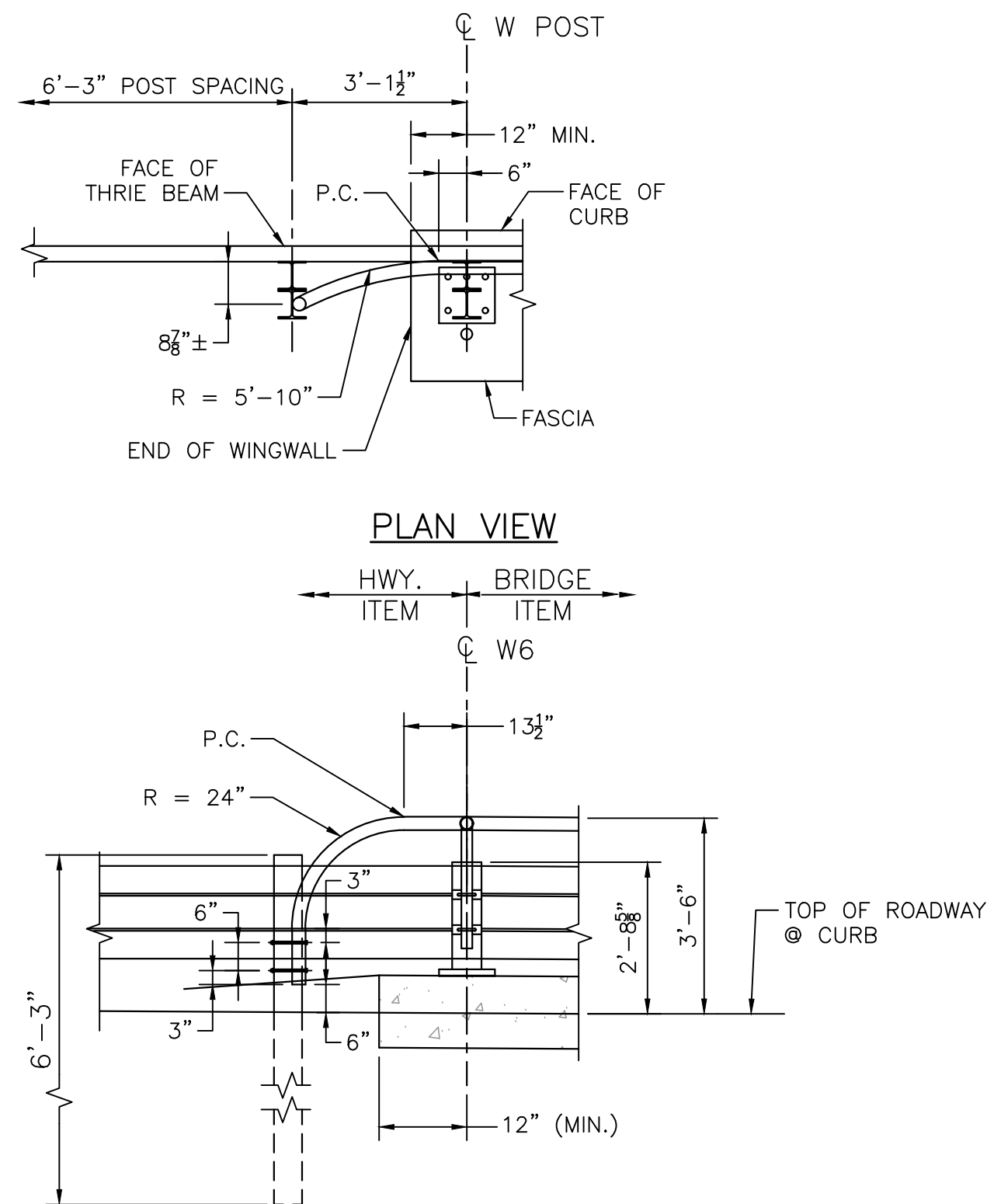
BETA JOB NO. 7545
ISSUE DATE
SHEET NO. 7

4/5/2022 3:42 PM \\BETA\IN\BDR01\UXBRIDGE\SMALL BRIDGE CONTRACT\DRAWING FILES\PLANSET\7545_SR\THRIEBEAMDETAILS.dwg (BETA STB BWS) STB

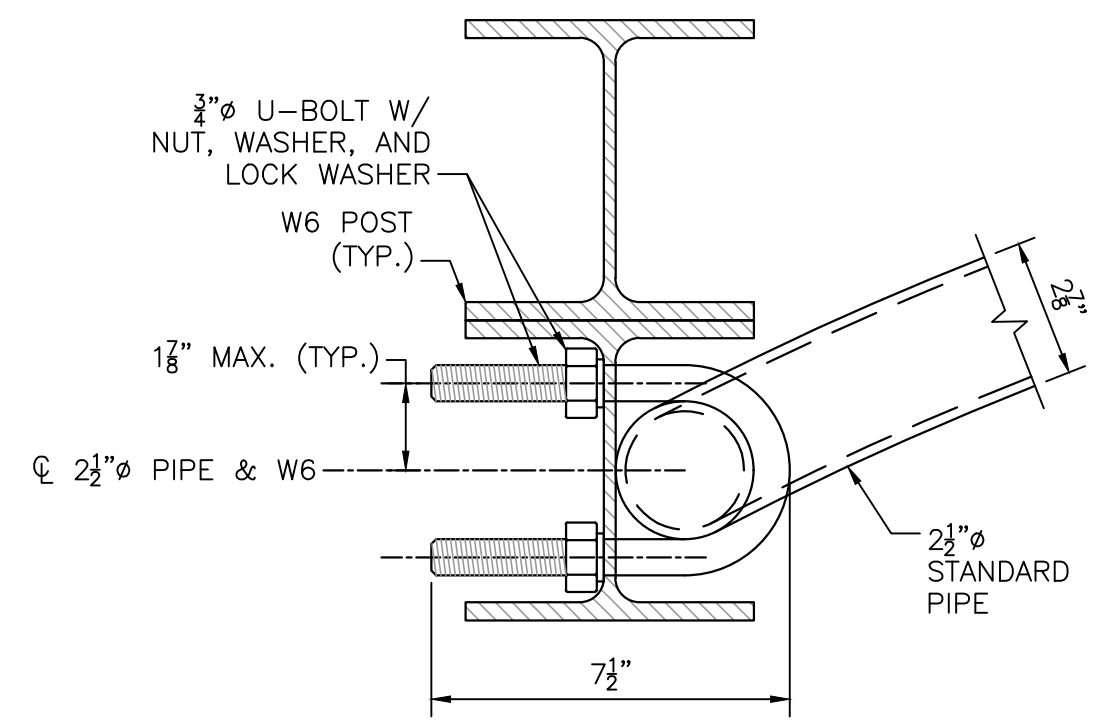


NOTE: TOP OF MOMENT SLAB SHOWN, TOP OF WINGWALL SIMILAR.

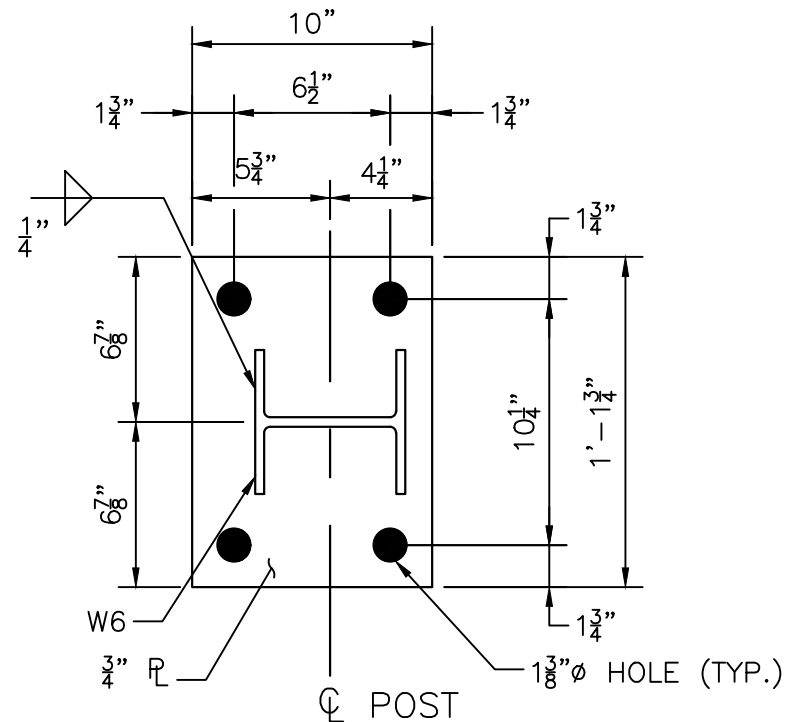
THRIE BEAM SECTION
SCALE: 1 1/2" = 1'-0"



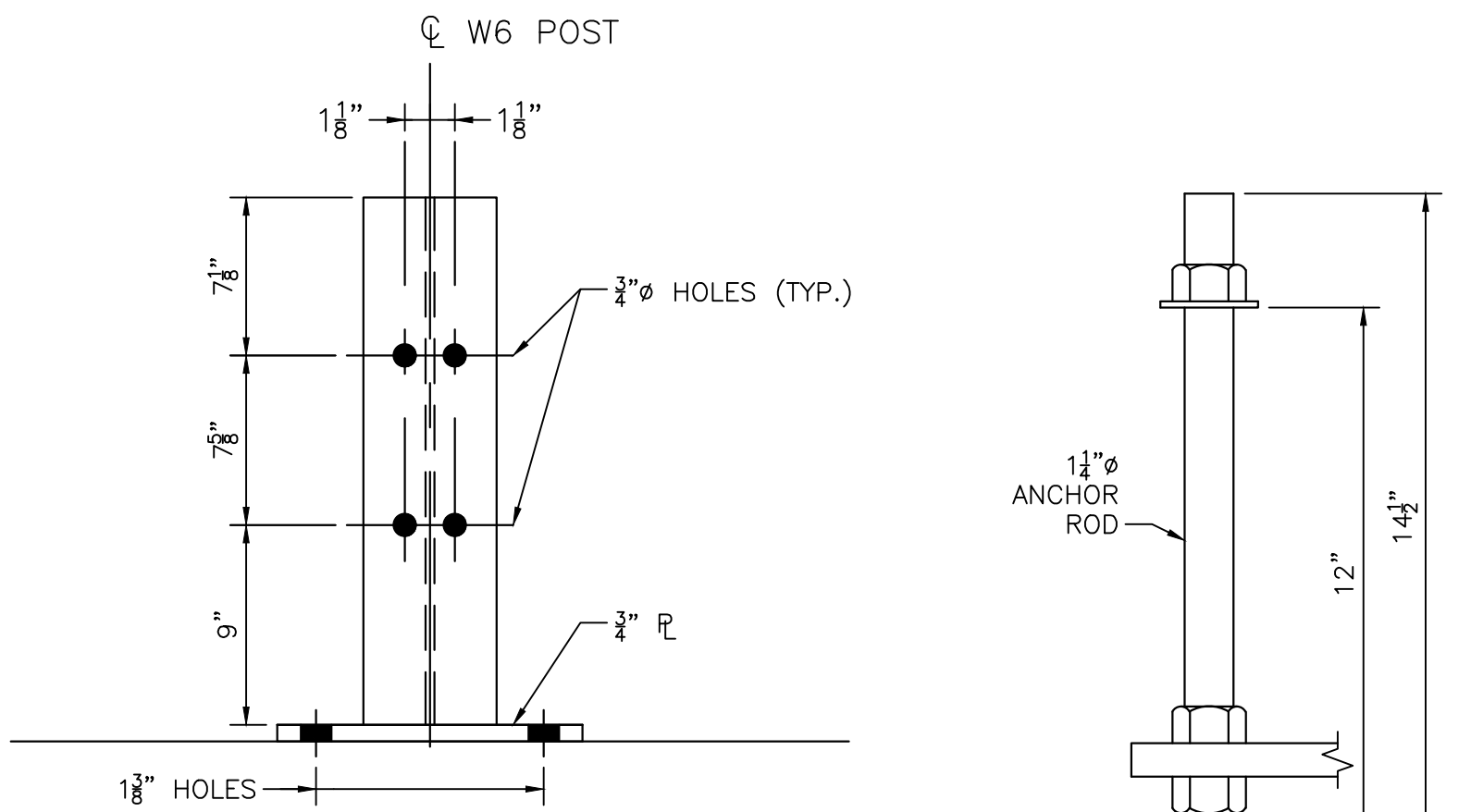
HAND RAIL END DETAIL
SCALE: 3/8" = 1'-0"



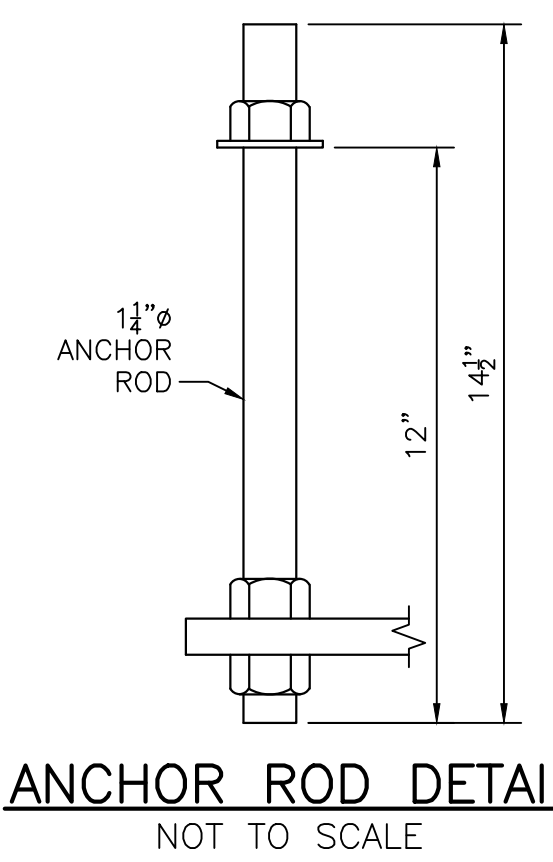
END SADDLE DETAIL
SCALE: 3" = 1'-0"



BASE PLATE DETAIL
SCALE: 1 1/2" = 1'-0"

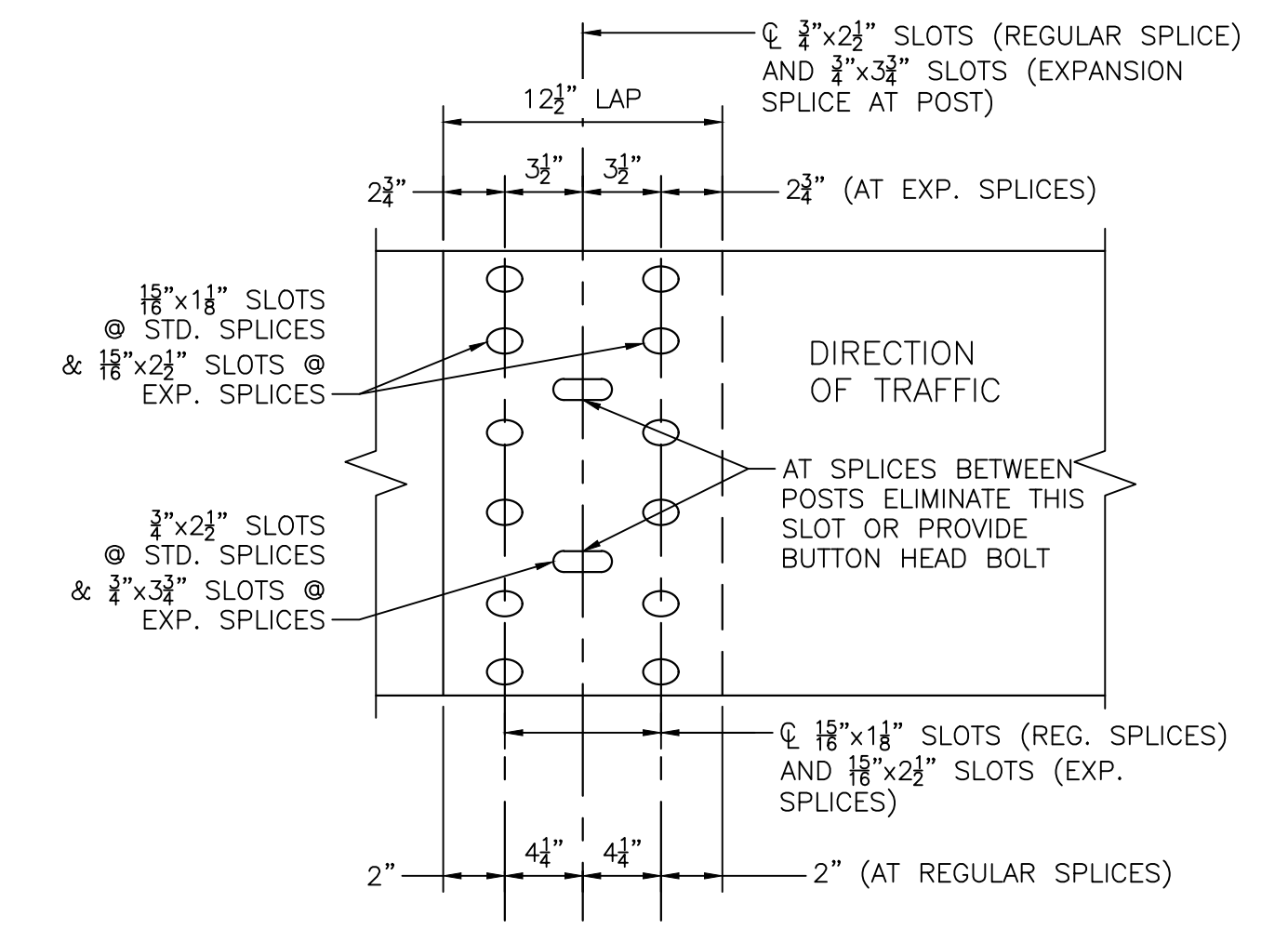


RAIL POST DETAIL (FRONT VIEW)
SCALE: 1 1/2" = 1'-0"

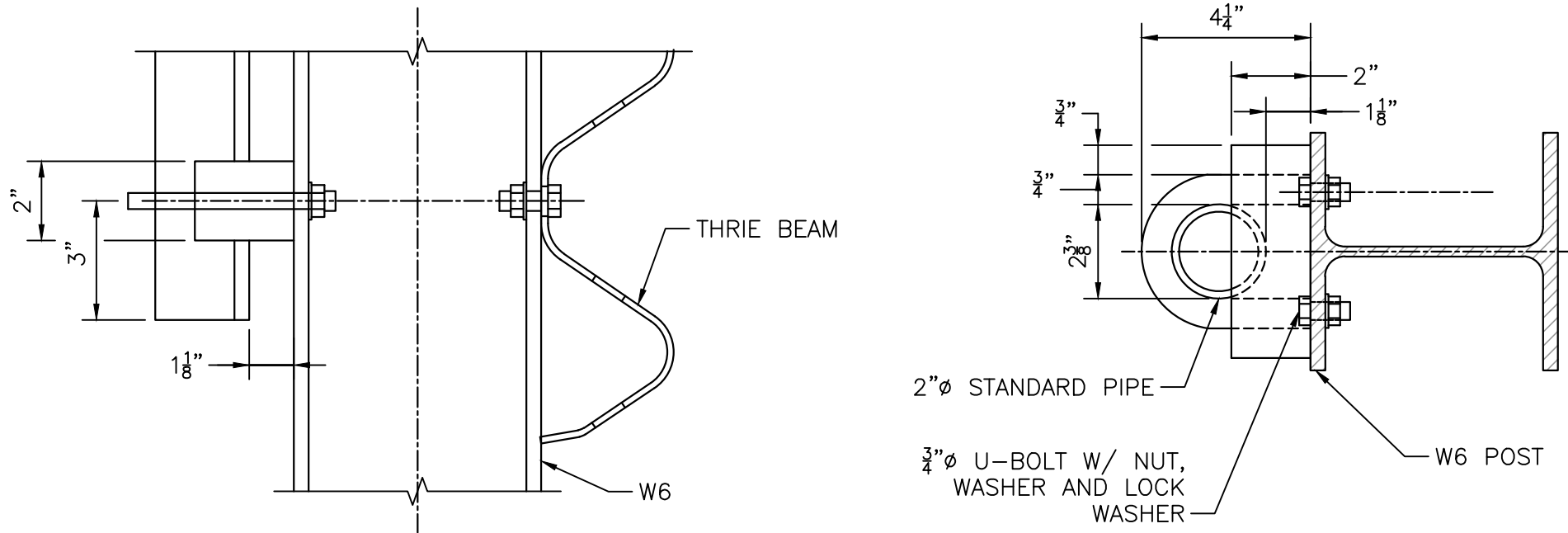


ANCHOR ROD DETAIL
NOT TO SCALE

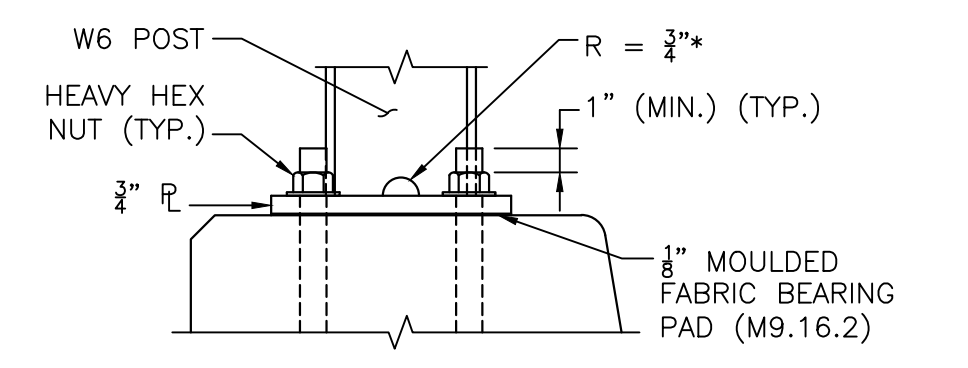
- NOTES:**
1. ALL STEEL CONNECTING BOLTS AND FASTENERS FOR POSTS AND RAILING SHALL CONFORM TO ASTM A307 AND SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M232. ALL ANCHOR RODS SHALL CONFORM TO F1554 GRADE 105 AND SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M232.
 2. RAIL POSTS AND ANCHOR PLATES SHALL BE SEATED ON MOULDED FABRIC BEARING PADS MEETING M9.16.2 AND HAVING THE SAME DIMENSIONS AS THE PLATE. ADDITIONAL PADS OR HALF PADS MAY BE USED IN SHIMMING FOR ALIGNMENT. POST HEIGHTS SHOWN WILL INCREASE BY THE THICKNESS OF THE PAD.
 3. RAIL POSTS SHALL BE SET PERPENDICULAR TO ROADWAY PROFILE GRADE AND VERTICALLY IN CROSS SECTION, EXCEPT THAT THE RAIL POSTS SHALL BE ALIGNED BY THE USE OF SHIMS SO THAT IN THE FINAL ADJUSTMENT NO PART SHALL DEVIATE MORE THAN ONE INCH FROM TRUE HORIZONTAL ALIGNMENT. THE SHIMS SHALL BE 3"x1 1/2" AND PLACED BETWEEN THE POST AND THE THRIE BEAM RAIL. THE THICKNESS OF THE SHIMS SHALL BE DETERMINED BY THE CONTRACTOR AND VERIFIED BY THE ENGINEER BEFORE ORDERING MATERIAL FOR THIS WORK.
 4. MINIMUM LENGTH OF THE THRIE BEAM SECTIONS IS EQUAL TO ONE POST SPACE.
 5. THRIE BEAM GUARD RAIL STEEL SHALL BE GALVANIZED AND CONFORM TO THE AASHTO M180, CLASS B, TYPE IV AND SHALL BE 10 GAGE THICK. USE OF 12 GAGE THICK THRIE BEAM IS EXPRESSLY FORBIDDEN.
 6. POSTS, ANCHOR PLATES, BASE PLATES SHALL BE FABRICATED FROM STEEL CONFORMING TO AASHTO M270M GR. 250 STEEL AND SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M111.
 7. SPECIAL DRILLING OF THE THRIE BEAM MAY BE REQUIRED AT THE SPLICES. (ALL DRILLING DETAILS ARE TO BE SHOWN ON THE SHOP DRAWINGS.)
 8. HAND RAIL STEEL SHALL CONFORM TO ASTM A53 GR. B OR A501 AND SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M111.
 9. PLACE A REFLECTORIZED WASHER IN THE UPPER VALLEY OF THRIE BEAM EVERY THIRD POST.
 10. HAND RAIL SHALL BE SPLICED OVER JOINTS IN COPING.



THRIE BEAM RAIL SPLICE
SCALE: 1 1/2" = 1'-0"

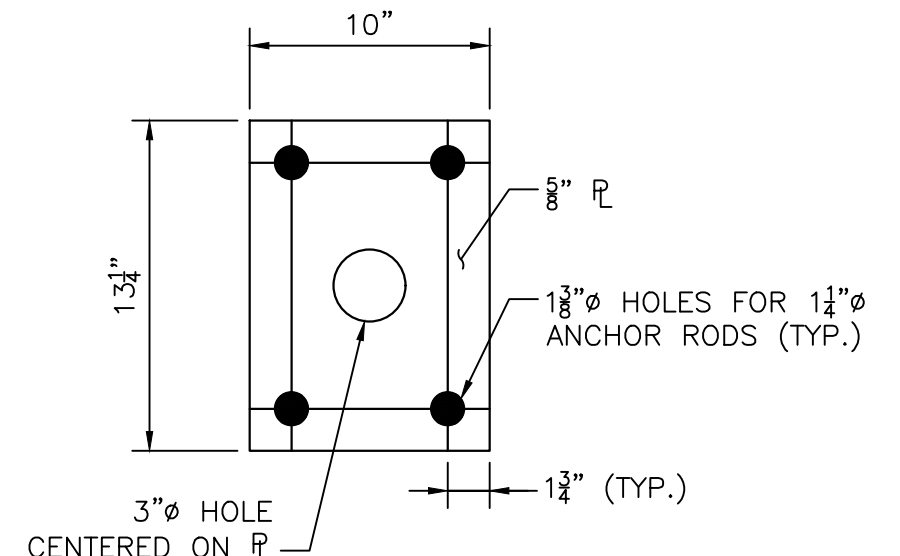


SADDLE DETAILS
SCALE: 3" = 1'-0"

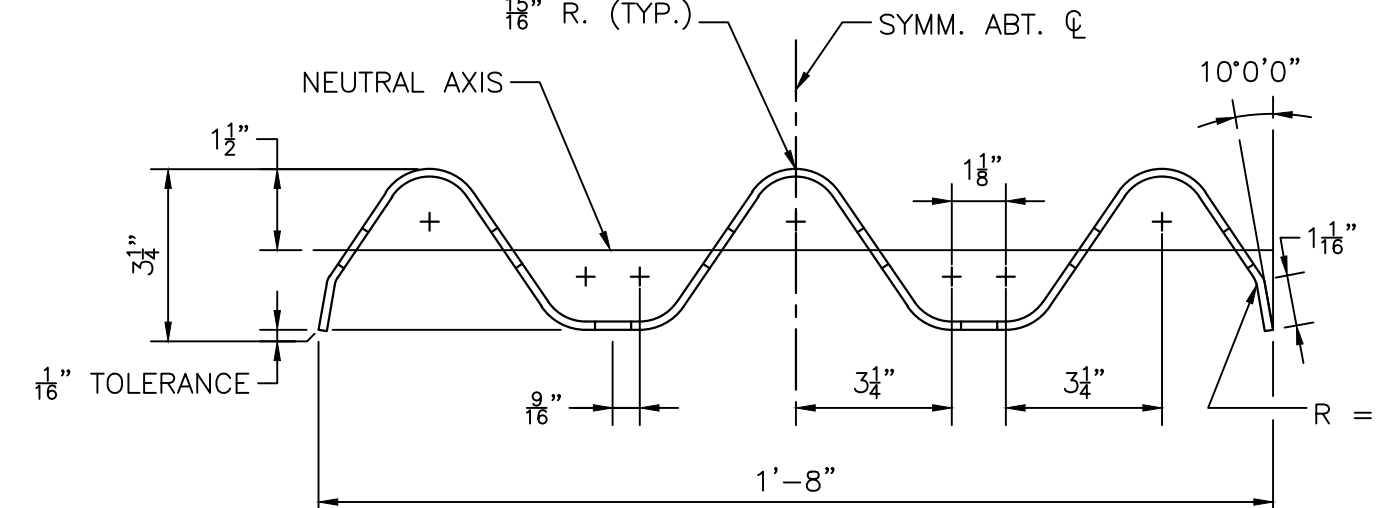


* PERMISSIBLE SEMI-CIRCULAR NOTCHES IN ENDS OF WEB CENTERED ON AXIS OF POST TO FACILITATE GALVANIZING (TYPICAL TOP AND BOTTOM OF POST)

DETAIL A
SCALE: 1 1/2" = 1'-0"



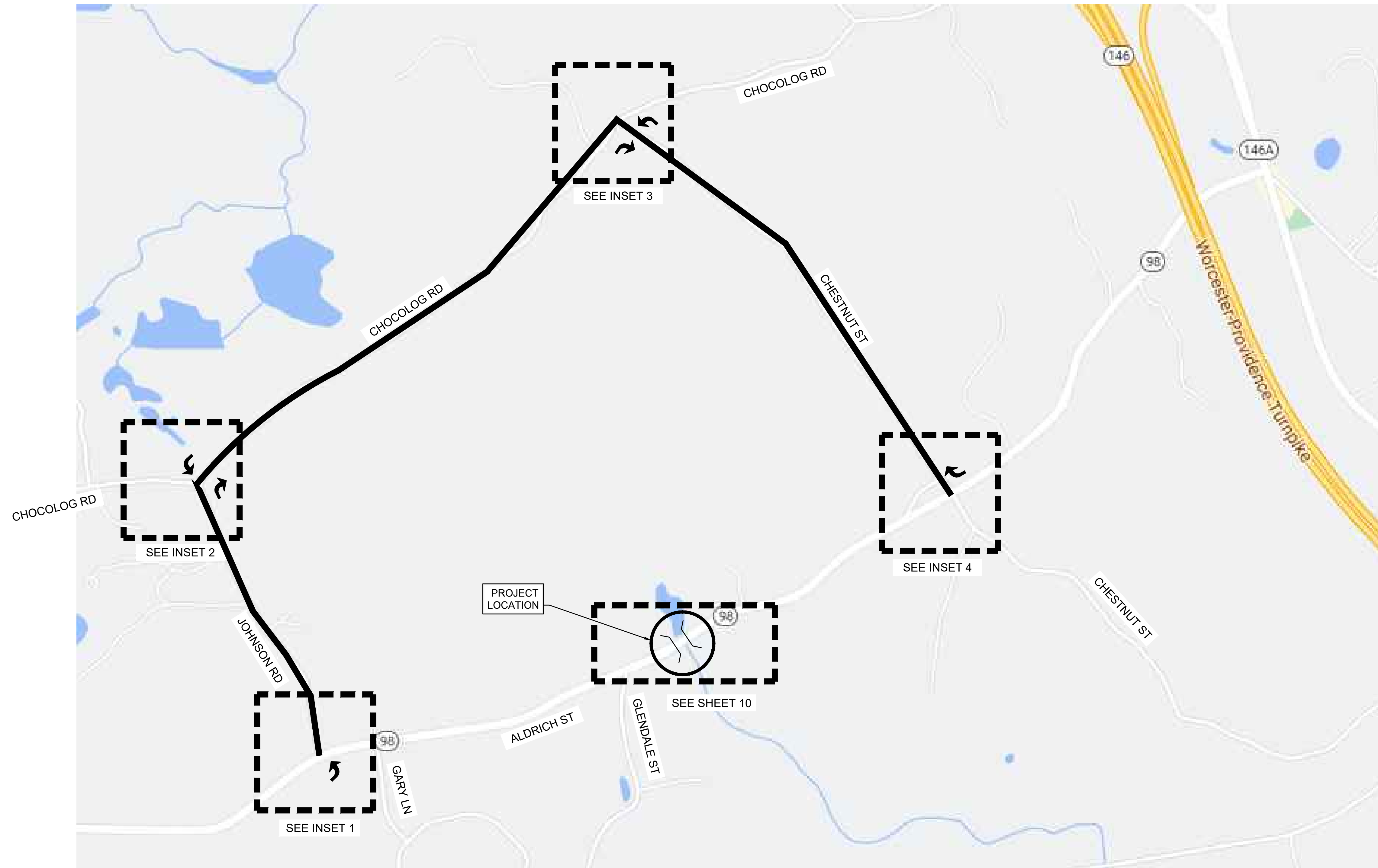
ANCHOR PLATE DETAIL
SCALE: 1 1/2" = 1'-0"



SECTION THRU THRIE BEAM RAIL
SCALE: 3" = 1'-0"

				DRAWN BY: BN	REGISTERED PROFESSIONAL	PREPARED BY:	SUBCONSULTANT	SCALE: AS SHOWN	TITLE: Aldrich Street Bridge Improvements Uxbridge, Massachusetts THRIE BEAM DETAILS	BETA JOB NO. 7545	
				DESIGNED BY: TW						ISSUE DATE:	
				CHECKED BY: TW						SHEET NO. 8	
NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS							BRIDGE NO. 0-02-038

4/5/2022 3:42 PM \\BETA\IN\BDR01\UXBRIDGE\7546 - UXBRIDGE - SMALL BRIDGE CONTRACT\DRAWING FILES\PLANSET\ALDRICH\7546_SR(DETOUR)_ALDRICH.DWG (BETA STB BW) (STB)

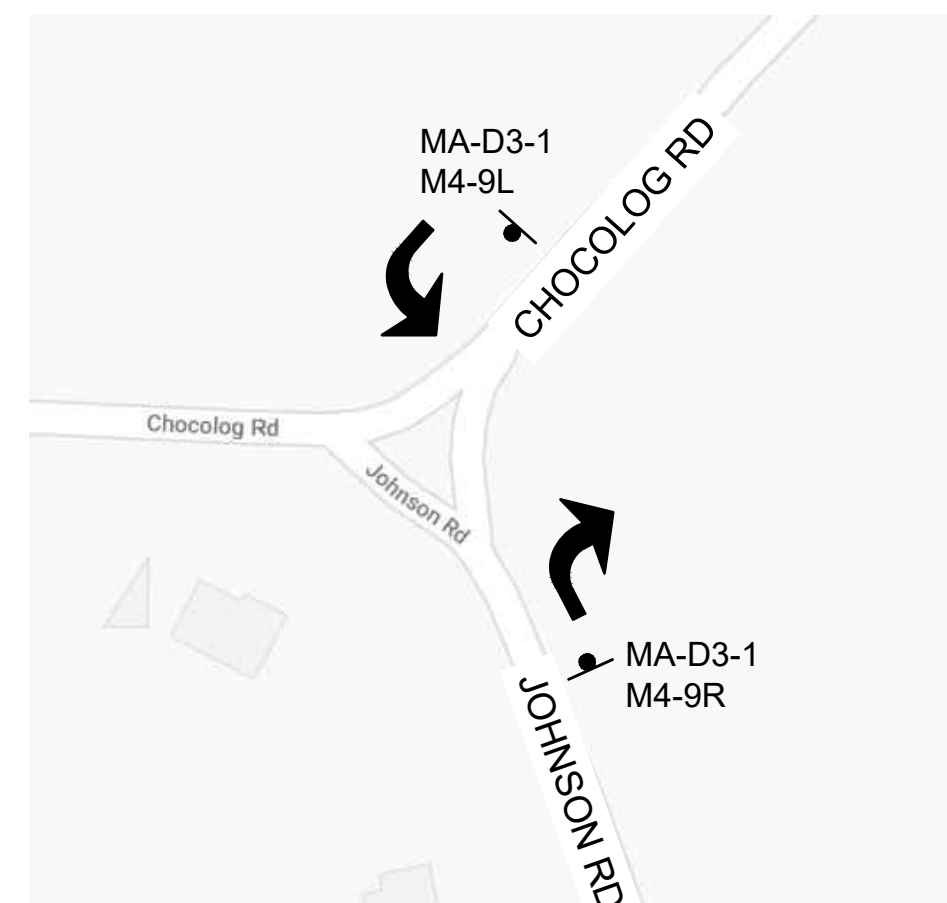


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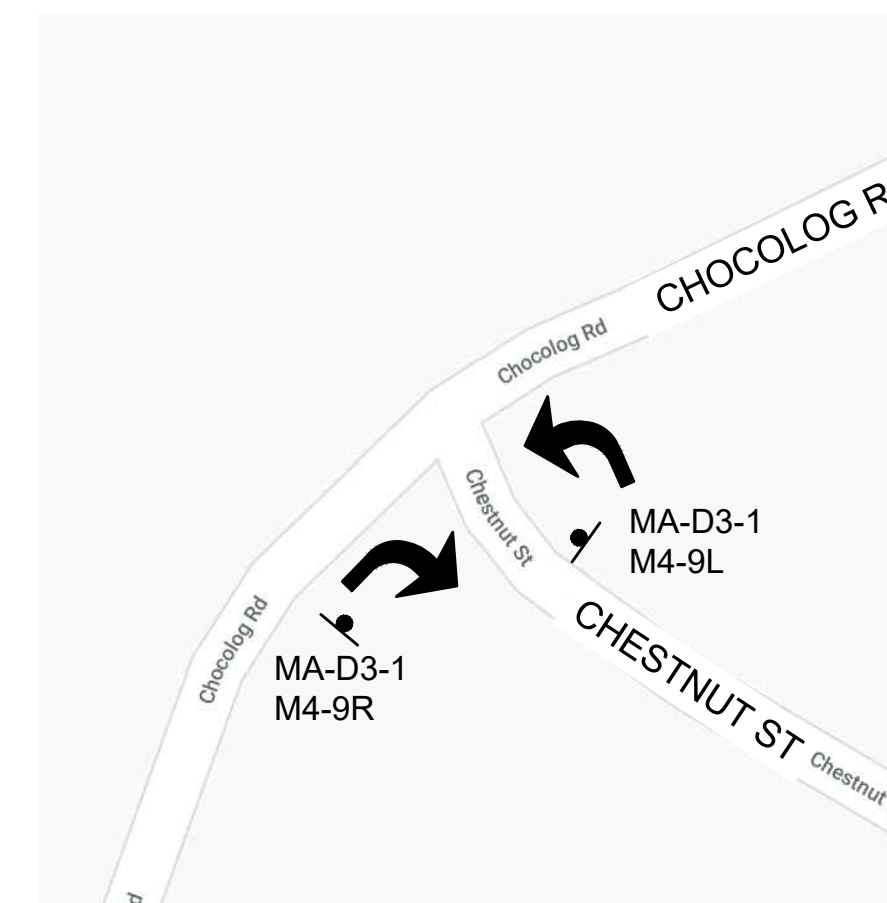
1. EMERGENCY ACCESS MUST BE MAINTAINED TO ALL PROPERTIES AT ALL TIMES.
2. DETOUR SIGNS SHALL BE COVERED WHEN DETOUR IS NOT IN ACTIVE USE.



INSET 1
NOT TO SCALE



INSET 2
NOT TO SCALE



INSET 3
NOT TO SCALE



INSET 4
NOT TO SCALE

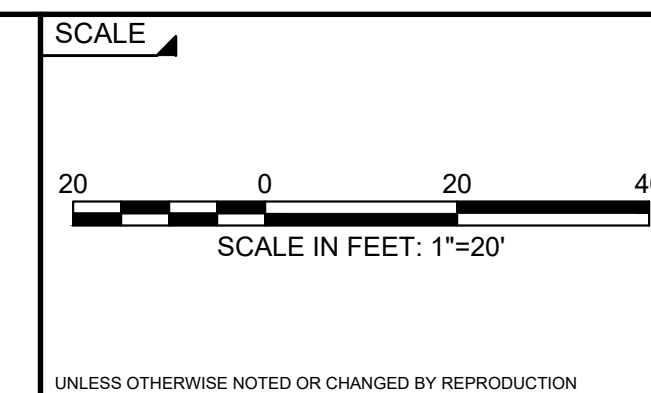
NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

DRAWN BY:
SD
DESIGNED BY:
JC
CHECKED BY:
TW

REGISTERED PROFESSIONAL
Not for Construction



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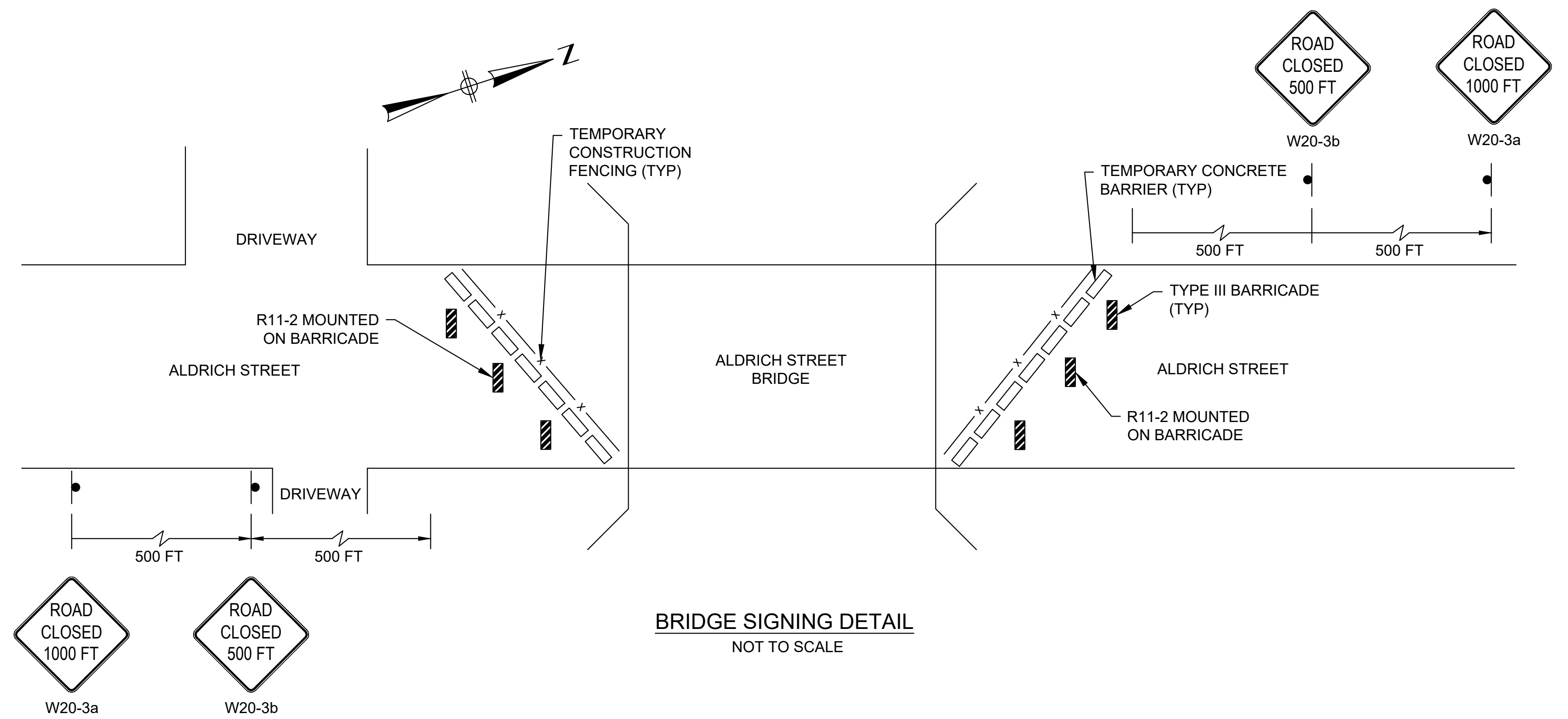
TITLE
**Aldrich Street Bridge Improvements
Uxbridge, Massachusetts**
DETOUR PLAN
BRIDGE NO. U-02-038

BETA JOB NO. 7545
ISSUE DATE
SHEET NO. 9

CONSTRUCTION SIGN SUMMARY

* NO. OF SIGNS ARE ESTIMATED FOR BIDDING PURPOSES ONLY
 ** ALL CONSTRUCTION SIGNAGE SHALL HAVE FLUORESCENT ORANGE BACKGROUND

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	DIMENSIONS (in)			NUMBER OF SIGNS REQUIRED	COLOR			POST SIZE AND NUMBER REQUIRED	UNIT AREA IN SQUARE FEET	AREA IN SQUARE FEET		
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW		BACK-GROUND	LEGEND	BORDER					
R11-2	48 in	30 in	ROAD CLOSED	SEE 2009 MUTCD STANDARDS			2	WHITE	BLACK	BLACK	MOUNT ON BARRICADE	10.0	20.0		
R11-4	60 in	30 in	ROAD CLOSED TO THRU TRAFFIC				2	WHITE	BLACK	BLACK	MOUNT ON BARRICADE	12.5	25.0		
W20-3a	36 in	36 in	ROAD CLOSED 1000 FT				2	**ORANGE	BLACK	BLACK	P-5 2	9.0	18.0		
W20-3b	36 in	36 in	ROAD CLOSED 500 FT				2	**ORANGE	BLACK	BLACK	P-5 2	9.0	18.0		
M4-8a	24 in	18 in	END DETOUR				2	**ORANGE	BLACK	BLACK	P-5 2	3.0	6.0		
M4-9L	30 in	24 in	DETOUR ←				3	**ORANGE	BLACK	BLACK	MOUNT W/ MA-D3-1	5.0	15.0		
M4-9R	30 in	24 in	DETOUR →				3	**ORANGE	BLACK	BLACK	MOUNT W/MA-D3-1	5.0	15.0		
M4-9V	30 in	24 in	DETOUR ↑				0	**ORANGE	BLACK	BLACK	MOUNT W/ MA-D3-2	5.0	0		
MA-D3-1	x in	12 in	Aldrich st				6/4D	3 3				3	**ORANGE	BLACK	BLACK



4/5/2022 3:42 PM I:\BETA\IN\BDR01\UXBRIDGE\7546 - UXBRIDGE - SMALL BRIDGE CONTRACT\DRAWING FILES\PLANSET\ALDRICH\7546_S\SR(DETOUR)\ALDRICH.DWG (BETA STB BW) (STB)

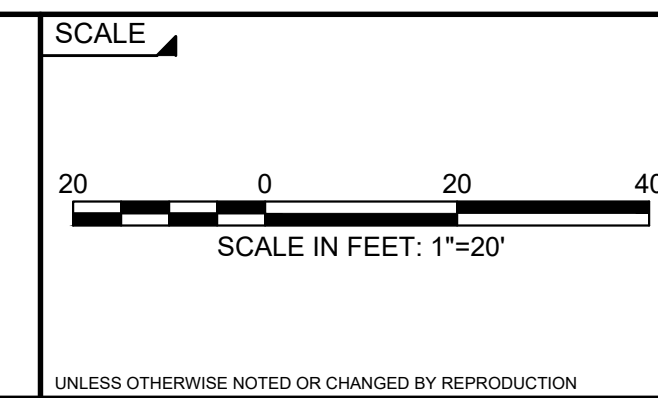
NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

DRAWN BY: SD
 DESIGNED BY: JC
 CHECKED BY: TW

REGISTERED PROFESSIONAL
Not for Construction

 www.BETA-Inc.com

PREPARED BY: _____
 SUBCONSULTANT: _____



TITLE

Aldrich Street Bridge Improvements
Uxbridge, Massachusetts
 DETOUR PLAN

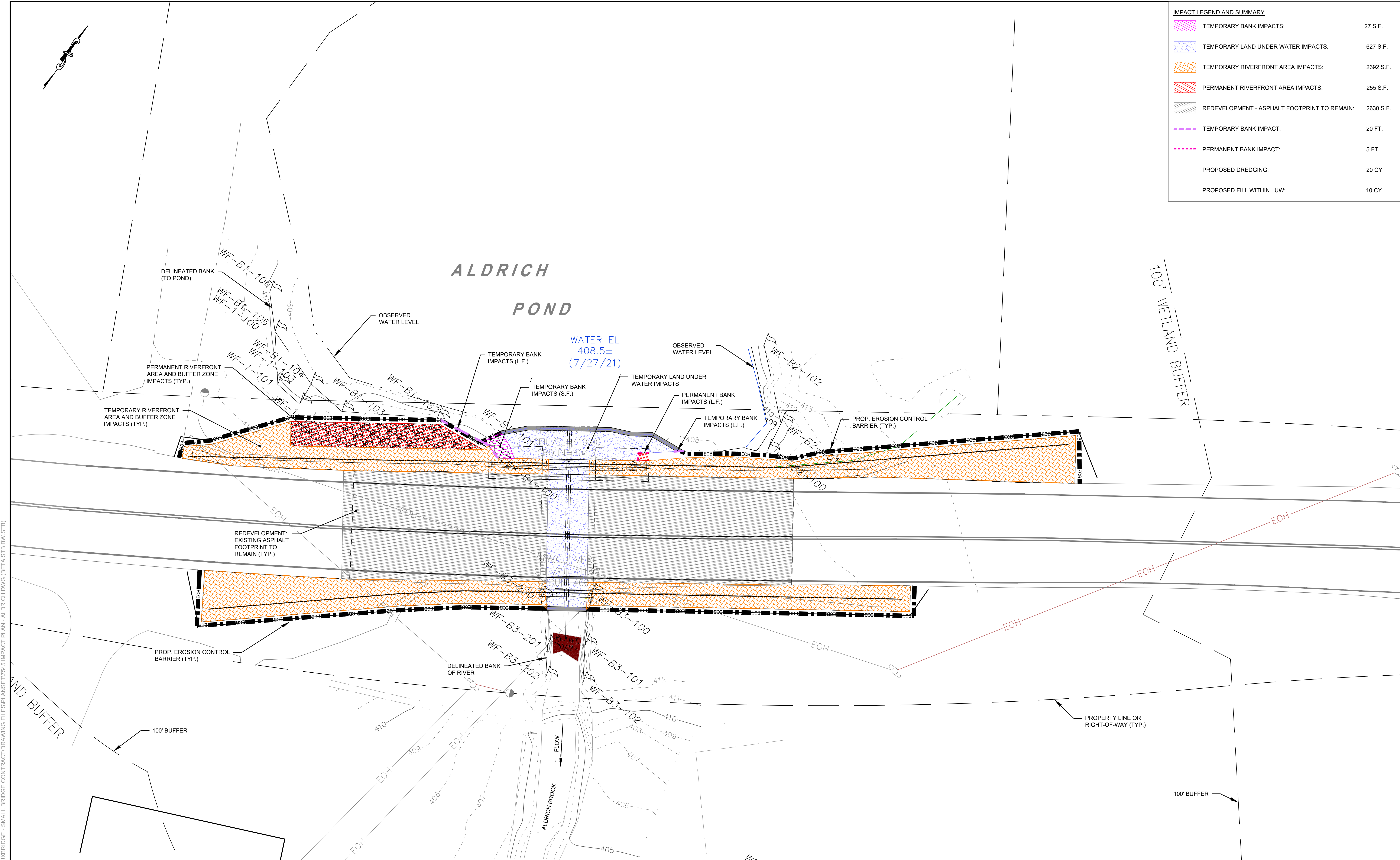
BRIDGE NO. U-02-038

BETA JOB NO. 7545
 ISSUE DATE: _____
 SHEET NO. 10

IMPACT LEGEND AND SUMMARY		
	TEMPORARY BANK IMPACTS:	27 S.F.
	TEMPORARY LAND UNDER WATER IMPACTS:	627 S.F.
	TEMPORARY RIVERFRONT AREA IMPACTS:	2392 S.F.
	PERMANENT RIVERFRONT AREA IMPACTS:	255 S.F.
	REDEVELOPMENT - ASPHALT FOOTPRINT TO REMAIN:	2630 S.F.
	TEMPORARY BANK IMPACT:	20 FT.
	PERMANENT BANK IMPACT:	5 FT.
	PROPOSED DREDGING:	20 CY
	PROPOSED FILL WITHIN LUW:	10 CY

ALDRICH POND

WATER EL
408.5±
(7/27/21)



4/4/2022 5:06 PM N17546 - UXBRIDGE - SMALL BRIDGE CONTRACT/DRAWING FILES/PLANS/BETA/IMPACT PLAN - ALDRICH.DWG (BETA STB BW STB)

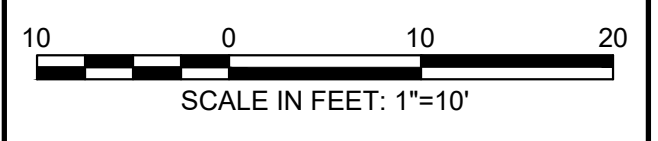
NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

DRAWN BY: SLB / CT
DESIGNED BY: SLB / CT / PP
CHECKED BY:

PREPARED BY



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UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

Aldrich Street Bridge improvements

RESOURCE IMPACTS PLAN

Aldrich Street
Uxbridge, MA

BETA JOB NO.	7545
ISSUE DATE	xx/xx/2022
SHEET NO.	8 OF xx



US Army Corps of Engineers®
New England District

WORK-START NOTIFICATION FORM
(Minimum Notice: Two weeks before work begins)

EMAIL TO: Maninder.Singh@usace.army.mil and cenae-r@usace.army.mil; or

MAIL TO: Maninder Singh
Regulatory Division
U.S. Army Corps of Engineers, New England District
696 Virginia Road
Concord, Massachusetts 01742-2751

Also, if the work is in the Massachusetts Coastal Zone (<https://www.mass.gov/service-details/czm-regions-coastal-communities-and-coastal-zone-boundary>), email this form to Sean.Duffey@mass.gov and patrice.bordonaro@mass.gov or mail it to: The Massachusetts Office of Coastal Zone Management, Project Review Coordinator, Suite 800, 251 Causeway Street, Boston, MA 02114.

Corps of Engineers Permit No. NAE-2022-01050 was issued to Paul Hutnak. This work is located on Aldrich Brook, adjacent to 371 Aldrich Street, Uxbridge, Massachusetts at approximate site coordinates 42.027757, -71.640558 and authorized was to discharge fill below the ordinary high water (OHW) mark of Waters of the U.S. in order to permanently impact 25 linear feet of stream, and temporarily impact 20 linear feet of stream and 654 square feet of open water for the purpose of bridge rehabilitation. Activities include temporary dewatering, installation of water bypass and control structures, erosion control materials, bank stabilization, replacement of northern wingwalls, and replacement of northern and southern headwalls with monument slabs.

The people (e.g., contractor) listed below will do the work, and they understand the permit's conditions and limitations.

PLEASE PRINT OR TYPE

Name of Person/Firm: _____

Business Address: _____

Phone & email: () _____ () _____

Proposed Work Dates: Start: _____ Finish: _____

Permittee/Agent Signature: _____ Date: _____

Printed Name: _____ Title: _____

Date Permit Issued: _____ Date Permit Expires: _____

FOR USE BY THE CORPS OF ENGINEERS

PM: _____ **Submittals Required:** _____

Inspection Recommendation: _____



**US Army Corps
of Engineers**®
New England District

COMPLIANCE CERTIFICATION FORM

(Minimum Notice: Permittee must sign and return notification
within one month of the completion of work.)

Permit Number: NAE-2022-01050

Project Manager: Maninder Singh

Name of Permittee: Paul Hutnak

Permit Issuance Date: August 20, 2024

Please sign this certification and return it to our office upon completion of the activity.

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*****
* E-MAIL TO: cenae-r-ma@usace.army.mil; & Maninder.singh@usace.army.mil *
*
* MAIL TO: Massachusetts Section *
* Regulatory Division *
* U.S. Army Corps of Engineers, New England District *
* 696 Virginia Road *
* Concord, MA 01742-2751 *
*****

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Please note that your permitted activity is subject to a compliance inspection by an U.S. Army Corps of Engineers representative. If you fail to comply with this permit you are subject to permit suspension, modification, or revocation.

I hereby certify that the work authorized by the above referenced permit was completed in accordance with the terms and conditions of the above referenced permit, and any required mitigation was completed in accordance with the permit conditions.

Signature of Permittee

Date

Printed Name

Date of Work Completion

() _____
Telephone Number

() _____
Telephone Number