



Department of Conservation and Recreation

PART I

INSTRUCTIONS TO BIDDERS

CONTRACTS FOR PUBLIC WORKS PROJECTS
AND
FOR BUILDING PROJECTS ESTIMATED TO
COST MORE THAN \$25,000 BUT NOT MORE THAN \$100,000
SUBJECT TO THE PROVISIONS OF M.G.L. CH. 30 SEC. 39M

**NOTICE TO CONTRACTORS – M.G.L. C. 30, sec. 39M CONSTRUCTION
ADVERTISEMENT OF INVITATION FOR BIDS
COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF CONSERVATION AND RECREATION
10 PARK PLAZA, SUITE 6620, BOSTON, MA 02116
PHONE: 617-626-1250
www.mass.gov/dcr**

Contract No. P25-3602-C3A
Title: Laurel Lake Drainage Improvements
Location: Erving State Forest, Erving, MA 01344
County: Franklin

GENERAL BID proposals shall be submitted on a form furnished by the Department and will be received until **12:00 PM on Thursday, July 17, 2025** through DCR's E-bid room at www.bidexpress.com/businesses/36765/home.

Individual sets of contract documents will only be available on DCR's E-bid room at www.bidexpress.com/businesses/36765/home.

If any addenda are issued throughout the open period for this project, DCR will distribute these addenda via Bid Express, which will also email identified prospective at the time plans and specifications are issued.

A pre-bidding conference for prospective bidders will be held on **Thursday, June 26, 2025**, at **10:00 AM** in person at the proposed work location in the day use parking lot located at **Laurel Lake Road, Warwick, MA 01378**.

GPS Coordinates for the meeting location: **42.620042, -72.367429**

This project is to protect and improve water quality in Laurel Lake in Erving State Forest by improving the existing drainage conditions at the day-use area of the park. Improvements include re-pavement of the parking lot, upgrading of existing drainage piping, relocation of the drainage discharge point currently located on Laurel Lake Beach, and installation of the infiltration swales and infiltration basins.

The estimated project cost is **\$ 1,700,000.00**

The work is to be accomplished within 730 calendar days of a notice to proceed. Liquidated damages in the amount of \$100.00 per day will be assessed if the work has not been completed in accordance with the provisions of the contract within the time specified (as extended by any authorized extension of time granted in accordance with the contract provisions).

Bidders must be pre-qualified by the Massachusetts Dept. of Transportation (MassDOT) Highway Division in **HIGHWAY - CONSTRUCTION** to bid on the above project. An award will not be made to a Contractor who is not pre-qualified by MassDOT prior to the opening of Proposals.

The Proposed contract includes a requirement of 6% for MBE (Minority Business Enterprise) 10% for WBE (Women Business Enterprise) and 3% VOBE requirement (Veteran-Owned Business Enterprise).

The applicable local minority workforce utilization percentage is a minimum goal of 15.3%. The applicable local women workforce utilization percentage is a minimum goal of 6.9%.

Each bid must be accompanied by a bid deposit, in the form of a bid bond, cash, certified check, or a treasurer's or cashier's check issued by a responsible bank or trust company, payable to the Department of Conservation and Recreation in the amount of 5% of the bid.

Each bid must be submitted through DCR's E-Bid room at www.bidexpress.com/businesses/36765/home. Please ensure that your bid is complete and marked as responsive when submitting through DCR's Bid room. Any bids found to be incomplete and/or marked unresponsive will be rejected by DCR and will not be considered when awarding the project.

Bids are subject to the provisions of M.G.L. Ch. 30, Sect. 39F, G, H and M inclusive. Wages are subject to minimum wage rates as per M.G.L. Ch. 149, sections 26 to 27D inclusive. The Department reserves the right to waive any informalities in or to reject any and all bids if it be in the public interest to do so.

Brian M. Arrigo, Commissioner
Massachusetts Department of Conservation and Recreation



**COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF CONSERVATION AND RECREATION**

**PART I
INSTRUCTIONS TO BIDDERS**

**CONTRACTS FOR PUBLIC WORKS PROJECTS
SUBJECT TO THE PROVISIONS OF M.G.L. C. 30. SEC. 39M**

Awarding Authority:

Department of Conservation and Recreation
10 Park Plaza, Suite 6620,
Boston, MA 02116
Telephone: 617-626-1250

DCR Contract No.: P25-3602-C3A

Title: Laurel Lake Drainage Improvements

Project Scope: This project is to protect and improve water quality in Laurel Lake in Erving State Forest by improving the existing drainage conditions at the day-use area of the park. Improvements include re-pavement of the parking lot, upgrading of existing drainage piping, relocation of the drainage discharge point currently located on Laurel Lake Beach, and installation of the infiltration swales and infiltration basins.

Deadline for filing general bids is 12:00 P.M. on July 17, 2025.

The minimum wage rate and truck rate requirements for this Contract are located www.bidexpress.com/businesses/36765/home.

Bid forms for this Contract are located @ www.bidexpress.com/businesses/36765/home.

The Minority, Women & Veterans Business Enterprise participation for this Contract are to be found in the Notice to Contractors section (Part I - Page 2/3).

The time for completion of the Work is specified in Article 2 of the Department of Conservation and Recreation - Contractor Agreement. Liquidated damages for failure to complete on time are as stated in Article 8 of the Department of Conservation and Recreation - Contractor Agreement.

As used herein, capitalized terms shall have the meaning assigned to them in the General Conditions of the Contract and the Department of Conservation and Recreation - Contractor Agreement unless the context clearly indicates otherwise.

SECTION 1 - BIDDER'S REPRESENTATION

1.1 Each bidder (hereinafter sometimes referred to as "Bidder") by making a bid (hereinafter sometimes referred to as "Bid") represents and warrants that Bidder has visited and examined the Site and the Contract Documents; that Bidder is familiar with the local conditions under which the Work is to be performed; that Bidder has correlated personal observations with the requirements of the Contract Documents; and that where the Contract Documents require, in any part of the Work, a given result to be produced, the Contract Documents are adequate and that Bidder will produce the required result within the Bid price and that the Bid is made in accordance therewith.

1.2 FAILURE TO EXAMINE THE CONTRACT DOCUMENTS AND THE SITE WILL NOT RELIEVE ANY BIDDER FROM ANY OBLIGATION UNDER THE BID AS SUBMITTED. NEITHER THE COMMONWEALTH NOR THE DESIGNER WILL BE RESPONSIBLE FOR ERRORS, OMISSIONS AND/OR CHARGES FOR EXTRA WORK ARISING FROM BIDDER'S FAILURE TO FAMILIARIZE ITSELF WITH THE CONTRACT DOCUMENTS OR EXISTING CONDITIONS.

1.3 Pre-Bidding Conference

- A. If applicable, a pre-bidding conference for prospective bidders will be held at the date, time and location as specified in the Notice to Contractors section (Part I – page 2/3).
- B. At the conference, the project will be discussed in general. It is desirable that all prospective bidders attend. The Contract, Specifications, Drawings, and any other aspects of this project will be explained in response to questions by those attending. For interpretations of questions requiring legal, administrative, or engineering decision, prospective bidders shall comply with Section 3 herein.

SECTION 2 - GENERAL BIDDERS - QUALIFICATION

2.1 Every Bidder must submit the following documents, as required:

Special certification may be required as required by the Department on a contract-specific basis.

Refer to the Notice to Contractors for the specific qualification requirements of this contract.

SECTION 3 - REQUESTS FOR INTERPRETATION

3.1 Interpretation

A. The Plans and Specifications and other Contract Documents are to be considered together and are intended to be mutually complementary, so that any work shown on the Plans though not specified in the Specifications, and any work specified in the Specifications though not shown on the Plans, is to be executed by the Contractor as a part of this Contract.

B. All things that in the opinion of the Awarding Authority may be reasonably inferred from the Plans, Specifications and other Contract Documents are to be executed by the Contractor. The Awarding Authority shall determine whether the detail Plans conform to the general Plans and Contract Documents.

C. The tables of contents, titles, headings and marginal notes or sub-scripts contained herein are solely to facilitate references, are not intended to be construed as provisions of the Contract, and in no way affect the interpretation of the provisions to which they refer.

D. Where reference is made in the Contract Documents to publications, standards, or codes issued by associations or societies, such reference shall be interpreted to mean the current edition of such publications, standards, or codes, including revisions in effect on the date of the Advertisement, notwithstanding any reference to a particular date. The foregoing sentence shall not apply to the dates, if any, specified with respect to insurance policy endorsement forms.

E. In case of any conflict among the Contract Documents, unless the context clearly otherwise requires, the Contract Documents shall be construed according to the following priorities:

- First Priority: Contract Modifications
- Second Priority: Department of Conservation and Recreation - Contractor Agreement
- Third Priority: General Conditions of the Contract
- Fourth Priority: Drawings - Schedules take precedence over enlarged detail Drawings and enlarged Detail Drawings take precedence over reduced scale Drawings; figured dimensions shall prevail over scale.
- Fifth Priority: Specifications

3.2 Any questions by prospective Bidders concerning interpretation of the Contract Documents must be submitted in writing to the Awarding Authority and should be in its possession at least five working days before the date set for the receipt of Bids. The Awarding Authority will post to Bid Express any addenda or written interpretations that it deems necessary to Bidders who have taken out plans at the address given by them before the date set for the receipt of affected Bids. Bidders may not rely upon oral communications or interpretations from the Awarding Authority or the Designer, and the Awarding Authority shall not be bound by them.

Written Questions shall be submitted to:

Attn: Catherine Lampiasi, Project Manager
Department of Conservation and Recreation

Email: Catherine.A.Lampiasi@mass.gov

3.3 It is the sole responsibility of the Bidder to ascertain the existence of any addenda issued by the Awarding Authority, all addendums are posted on Bid Express- www.bidexpress.com/businesses/36765/home. Copies of addenda will be made available for inspection at the locations listed in the Advertisement where the Contract Documents are on file.

3.4 Wherever in the Contract Documents reference is made to Massachusetts General Laws, it shall be construed to include all amendments thereto effective as of the date of the issuance of the invitation to bid on the proposed work.

SECTION 4 - PREPARATION OF BIDS; ALTERNATES

4.1 Bids shall be submitted through the DCR E-Bid room at www.bidexpress.com/businesses/36765/home?agency=true.

4.2 All Bids submitted thru Bid Express must be deemed responsive by Bid Express to be considered

4.3 Where so indicated on the Bid Form, sums shall be expressed in both words and numerals. Where there is a discrepancy between the Bid sum expressed in words and the Bid sum expressed in figures, the Bid sum expressed in words shall control unless the intention of the Bidder clearly is otherwise as determined by the Awarding Authority in its sole discretion.

4.4 Each Bidder shall acknowledge all required alternates in Section C on the Bid Express by entering the dollar amount of addition or subtraction necessitated by the alternate(s).

4.5 If an alternate includes work within the Bidder's scope of work and does not involve a change in the cost of the Bid, the Bidder shall so indicate by writing "No Change" or "N/C" or "0" in the space provided for that alternate.

4.6 The lowest Bidder will be determined based on the sum of the base Bid and the accepted alternates.

4.7 Each bid must be accompanied by a bid deposit, payable to the Department of Conservation and Recreation in the amount of 5% of the bid. Bid Bonds must be submitted electronically, please ensure your company and your bonding agent's company register with one of the Bid Bond agencies affiliated with Bid Express: If you need additional assistance, please call the Bid Express Customer Support Team at [888-352-2439](tel:888-352-2439), available Monday - Friday from 7:00am – 8:00pm (EST). You can also email the team at support@bidexpress.com

4.8 The amount of such bid deposit shall be **5% five per cent** of the value of the Bid.

SECTION 5 - SUBMISSION OF BIDS

5.1 Each bid, **including the bid deposit**, shall be submitted via DCR's Bid room at www.bidexpress.com/businesses/36765/home?agency=true

5.2 All Bids must be received by the Awarding Authority no later than the applicable date and time specified on page 1 of these Instructions to Bidders. Any Bid not received by the applicable deadline will not be accepted.

SECTION 6 - WITHDRAWAL OF BIDS; REJECTION OF BIDS

6.1 Any Bid may be withdrawn prior to the specified deadline for the receipt of Bids provided that the withdrawal shall be made by a written request signed by a person having the authority to bind the Bidder. The written request must be hand delivered or otherwise delivered to Robert Boncore, Director of Contracts and Procurement, at 10 Park Plaza, Suite 6620, Boston, MA 02116 or through email at Robert.Boncore@Mass.Gov, and must be received on or before the date and time appointed as the deadline for the receipt of Bids.

6.2 A Bidder may withdraw its Bid without penalty at any time up to the time of Award as defined below in subsection 9.1 only upon demonstrating to the satisfaction of the Awarding Authority that a death or disability has occurred, or a bona fide clerical error or mechanical error of a substantial nature was made during the preparation of the bid. Failure to demonstrate conclusively that a bona fide clerical error or mechanical error of a substantial nature was made may result in forfeiture of the Bid deposit

6.3 The Awarding Authority reserves the right to waive any informality in or to reject any and all Bids if it is in the public interest to do so. Without limiting the foregoing, the Awarding Authority reserves the right to reject unit prices which it deems unduly high or unduly low as unbalanced.

SECTION 7 – INSURANCE

7.1 Insurance Generally

A. The Contractor shall take out and maintain the insurance coverages listed in this Section with respect to the operations as well as the completed operations of this Contract. The insurance requirements stipulated shall cover all damage to property, whether above or below ground, and shall apply to all the Work to be performed under this Contract. This insurance shall be provided at the Contractor's expense and shall be in full force and effect for the full term of the Contract or for such longer period as this Article requires.

B. All policies shall be written on an occurrence basis and be issued by companies authorized to write that type of insurance under the laws of the Commonwealth and rated in Best's Insurance Guide (or any successor thereto or replacement thereof) as having a general policy holder rating of "A" or better and a financial rating of at least "9" or otherwise acceptable to the DCR.

C. The Contractor shall submit two originals of each certificate of insurance, acceptable to the DCR, simultaneously with the execution of this Contract. Certificates shall include:

DCR Contract Number /Project Name & *DCR is an additional insured as to all policies of insurance, with the exception of workmen's compensation. In addition, none of the above-referenced insurance coverages shall be cancelled, terminated, or materially modified in any way unless and until 10 (Ten) days advance written notice is given to the DCR. Contractor has paid all premiums.

The Contractor shall submit updated certificates prior to the expiration of any of the policies referenced in the certificates so that the DCR shall at all times possess certificates indicating current coverage. Certificates shall indicate the contractual liability coverage, and the Contractor's Protective Liability coverage is in force. Certificates shall include specific acknowledgment that the coverages set forth in this Section 7 are included in the policies.

7.2 Types and Amounts of Insurance

Contractor's Commercial General Liability

Bodily Injury &	<u>500,000.00</u> each occurrence
Property Damage	<u>1,000,000.00</u> general aggregate, per project

This policy shall include coverage relating to explosion, collapse, and underground property damage if blasting operations constitute part of the Work to be performed under this Contract.

If the Contract work includes work to be performed within fifty feet of a railroad, any exclusion for liability assumed under contract for work within fifty feet of a railroad shall be deleted.

Vehicle Liability

The Contractor shall provide the following minimum coverage with respect to the operations of any employee, including coverage for owned, non-owned, and hired vehicles:

Combined Single Limit: 1,000,000.00

Worker's Compensation

The Contractor shall provide the following coverage in accordance with M.G.L. c. 149, sec. 34A and M.G.L. c. 152 as amended, unless a higher coverage is specified below:

Part One	Provide Statutory Minimum
Employer's Liability	\$500,000.00 each accident
Part Two	\$500,000.00 disease per employee
	\$500,000.00 disease policy aggregate

SECTION 8 – MBE, WBE AND VOB PARTICIPATION

8.1 The apparent low Bidder's compliance with the requirements of this Section 8 is a prerequisite for receiving the Award of the Contract. The MBE, WBE and VOB participation for this Contract are as set forth on the first page of these Instructions to Bidders

8.2. The Awarding Authority reserves the right to reduce or waive the MBE or WBE participation established for this Contract upon written request made by a Bidder. Requests to reduce or waive the MBE,WBE & VOB participation for this Contract should be received by the Awarding Authority no later than Ten (10) working days before the date set for the receipt of general Bids. **THE AWARDING AUTHORITY RESERVES THE RIGHT TO REJECT ANY REQUEST TO REDUCE OR WAIVE THE MBE,WBE & VOB REQUIREMENTS FOR THIS CONTRACT THAT IS RECEIVED AFTER THESE DEADLINES.** Such written request must demonstrate to the satisfaction of the Awarding Authority that it is not feasible for a non-MBE or non-WBE general Bidder to meet the percentage established for this Contract based upon any or all of the following: (i) actual MBE,WBE & VOB availability, (ii) the geographic location of the project to the extent related to MBE,WBE & VOB availability, (iii) the scope of the work, (iv) the percentage of work available for subcontracting to MBE,WBE & VOBs and/or (v) other relevant factors, including a **documented** inability by the prospective Bidder to obtain commitments from MBE,WBE & VOB subcontractors sufficient to meet the MBE,WBE & VOB requirements after having made a diligent, good faith effort to do so. All the foregoing documentation shall accompany the Bidder's request for a reduction or waiver of the MBE,WBE & VOB participation requirements. Such documentation shall include, at a minimum, the following:

-- A list of all items of work under the Contract that the Bidder made available for subcontracting to MBE,WBE & VOBES. The Bidder shall identify all items of work that the Bidder did not make so available and shall state the reasons for not making such work available for subcontracting to MBE,WBE & VOBES. The Bidder shall also demonstrate that, where commercially reasonable, subcontracts were divided into units capable of being performed by MBE,WBE & VOBES.

-- Evidence that the Bidder sent written notices soliciting Bids or proposals to perform the items of work made available by the Bidder for subcontracting to all MBE,WBE & VOBES qualified to perform such work. The Bidder shall identify (i) each solicited, and (ii) each MBE,WBE & VOBES listed in the Massachusetts Supplier Diversity Office ("SDO" formerly "SOMWBA") directory under the applicable trade category that was not solicited and reasons, therefore. The Bidder shall also state the dates that notices were mailed and provide a copy of the written notice(s) sent.

-- Evidence that the Bidder made reasonable efforts to follow up the written notices sent to MBE,WBE & VOBES with telephone calls or personal visits to determine with certainty whether the MBE,WBE & VOBES were interested in performing the work. Phone logs or other documentation must be submitted.

-- A statement of the response received from each solicited, including the reason for rejecting any MBE,WBE & VOBES who submitted a bid or proposal.

-- Evidence of efforts made to assist MBE,WBE & VOBES that needed assistance in obtaining bonding or insurance, or lines of credit with suppliers if the inability of MBE,WBE & VOBES to obtain bonding, insurance, or lines of credit is the reason given for the Bidder's inability to meet the requirements.

The Bidder may also submit any other information supporting its request for a waiver or reduction in the MBE,WBE & VOBES participation, including without limitation evidence that the Bidder placed advertisements in appropriate media and trade association publications announcing the Bidder's interest in obtaining bids or proposals from MBE,WBE & VOBES, and/or sent written notification to MBE,WBE & VOBES economic development assistance agencies, trade groups and other organizations notifying them of the Contract and the work to be subcontracted by the Bidder to MBE,WBE & VOBES. The Bidder shall also submit any other information requested by the Awarding Authority to show that the Bidder has taken all actions that could be expected to achieve the MBE,WBE & VOBES participation.

8.3 Any reduction or waiver of the MBE,WBE & VOBES participation for this Contract will be made by written addendum via Bid Express to all persons who have taken out plans for the project.

8.4 No later than five (5) working days after the opening of Bids, the apparent low Bidder shall submit the following documents to the Awarding Authority's Contract Officer listed in subsection 5.1: (i) a completed Schedule for Participation by Minority/Women Business Enterprises ("Schedule for Participation") in the form provided by the Awarding Authority showing participation in amounts equal to or exceeding the MBE,WBE & VOB requirements for this Contract, (ii) a completed Letter of Intent in the form provided by the Awarding Authority for each MBE,WBE & VOB listed in the Schedule for Participation, and (iii) a current SDO certification letter for each MBE,WBE & VOB listed in the Schedule of MBE,WBE & VOB Participation showing that the MBE,WBE & VOB is certified in the area of work for which it is listed on the Letter of Intent.

8.5 Each Letter of Intent shall identify and describe the work to be performed by the named (the "MBE,WBE & VOB Work") with enough specificity to permit the Awarding Authority to identify the items of contract work that the MBE,WBE & VOB will perform for participation credit. The Awarding Authority reserves the right to reject any Letter of Intent if the price to be paid for the MBE,WBE & VOB Work does not bear a reasonable relationship to the value of such work under the Contract as determined by the Awarding Authority.

8.6 Within five (5) working days after receipt of the Schedule For MBE,WBE & VOB Participation, Letters of Intent, and SDO certification letters, the Awarding Authority shall review and either approve or disapprove the apparent low Bidder's submissions. If the apparent low Bidder has not submitted an appropriate Schedule For MBE,WBE & VOB and appropriate Letters of Intent and SDO certification letters establishing that the MBE,WBE & VOB participation for the project will be met, the apparent low Bidder may be considered ineligible for Award of the Contract and the Awarding Authority will Award the Contract to the second lowest Bidder, subject to said Bidder's compliance with these conditions.

8.7 The Contractor is required to submit to the Awarding Authority signed subcontracts with all subcontractors prior to the commencement of work to be performed under these contracts, and/or a purchase order or invoice from each material supplier and/or manufacturer listed on the Schedule For MBE,WBE & VOB Participation of the issuance of the Notice to Proceed by the Awarding Authority.

SECTION 9 - CONTRACT AWARD

9.1 "Award" means the determination, selection, and notification of the lowest, responsible, and eligible Bidder by the Awarding Authority.

9.2 The Contract will be awarded to the lowest responsible and eligible Bidder as determined by the Awarding Authority. Bidders will be required to hold firm their respective bids for thirty (30) days, Saturdays, Sundays, and legal holidays excluded, after the opening of the Bids.

9.3 As used herein, the term "lowest responsible and eligible Bidder" shall mean the Bidder whose Bid is the lowest of those Bidders who, in the Awarding Authority's opinion, are ready, willing and able to comply with all requirements of the Contract Documents and demonstrably possess the skill, ability, and integrity necessary for the faithful performance of the Work, based on the determination of past performance and financial soundness under M.G.L. c. 30, sec. 39M, (ii) the rules, regulations, orders, guidelines and policies promulgated from time to time by the Commissioner of the Department of Conservation and Recreation and (iii) any other relevant criteria that the Awarding Authority may prescribe.

9.4 The Bid price shall be the price set forth in paragraph C of the Bid Form.

9.5 Should the Contract Documents require submission of special data to accompany the Bid, the Awarding Authority reserves the right to rule the Bidder's failure to submit such data an informality and to receive said data subsequently within a reasonable time as set by the Awarding Authority, provided that no such ruling shall result in an unfair advantage to the Bidder.

9.6 Should the Contract Documents require submission of special data to accompany the Bid, the Awarding Authority reserves the right to rule the Bidder's failure to submit such data an informality and to receive said data subsequently within a reasonable time as set by the Awarding Authority, provided that no such ruling shall result in an unfair advantage to the Bidder. **In addition**, the Department reserves the right to waive minor defects in documents or time limits

SECTION 10 - EXECUTION OF CONTRACTS

10.1 Upon receipt of the Award, the Bidder awarded the Contract shall submit two (2) properly executed originals of each of the following documents prior to execution of the Contract by the Awarding Authority. All such documents shall be in the form prescribed by the Awarding Authority and received within five working days from receipt of the Award.

- Department of Conservation and Recreation-Contractor Agreement
- Certificate of Corporate Vote
- Joint Venture Authorization (if appropriate)
- Performance and Payment Bonds with power of attorney
- Certificates of Insurance evidencing coverages in amounts required by the Contract Documents.
- Any other documents that the Awarding Authority may require in connection with the Contractor's execution of the Contract.

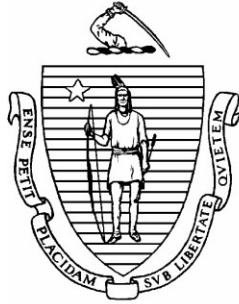
10.2 Please note that no part of the Contractor's work may be subcontracted without the prior written approval of the Awarding Authority. The Contractor must complete a minimum of 51% of the scope of this contract by his own work force. If the Contractor desires to subcontract any part of the Work, the Contractor must promptly forward to the Awarding Authority a list in duplicate designating the work to be performed and the name of each proposed subcontractor. Approved subcontractors

are eligible for direct payments under M.G.L. 30, sec. 39F, as amended. Material suppliers not involving site labor need not be submitted for approval.

SECTION 11 - RETURN OF BID DEPOSITS

11.1 All Bid deposits of Bidders, except those of the three (3) lowest responsible and eligible general Bidders, shall be returned within five days, Saturdays, Sundays, and legal holidays excluded, after the opening of the Bids. The Bid deposits of the three (3) lowest responsible and eligible Bidders shall be returned upon the execution and delivery of the Contract, or if no award is made; except that, if any Bidder fails to perform its agreement to execute the Contract and furnish performance and payment bonds as stated in its Bid, then said Bidder's Bid deposit shall become the property of the Commonwealth as liquidated damages; provided that the amount of the Bid deposit that becomes the property of the Commonwealth shall not exceed the difference between the Contractor's Bid price and the Bid price of the next lowest responsible and eligible Bidder; and provided further that, in the case of death, disability, bona fide clerical or mechanical error of a substantial nature, or other similar unforeseen circumstances affecting the Bidder, such Bidder's Bid deposit shall be returned.

11.2 In addition to the provisions for the return of Bid deposits as provided above, upon receipt of a Bid Bond in an amount not less than the amount of the required Bid deposit, the Awarding Authority shall return any Bid deposit of a Bidder forthwith after the public opening of Bids.



**COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF CONSERVATION & RECREATION
STANDARD CONSTRUCTION CONTRACT
For Projects Subject to M.G.L. c. 149 or M.G.L. c. 30, sec. 39M**

PART II

**DEPARTMENT OF CONSERVATION AND RECREATION -
CONTRACTOR AGREEMENT**

Awarding Authority: The Massachusetts Department of Conservation and Recreation

Department Code: DCR

This agreement ("Contract") is made by and between the Commonwealth of Massachusetts, acting by and through the Awarding Authority identified above with a principal place of business at 10 Park Plaza, Suite 6620, Boston, MA 02116, and hereinafter called the "Contractor".

Terms used in this Department of Conservation and Recreation - Contractor Agreement, which are defined in the General Conditions of the Contract, shall have the meanings designated therein.

The Awarding Authority and the Contractor agree as follows:

Article 1. Scope of Work. The Work under this Contract is defined as all work required by the Contract Documents for the construction of Contract No.; in accordance with and as described in the Plans and Specifications prepared by and as modified by Addenda () included herein.

Article 2. Time for Completion. The Contractor shall commence the Work under this Contract on the date specified in the written "Notice to Proceed," and shall within Days after such date, bring the Work to Substantial Completion and to the point at which a Certificate of Agency Use and Occupancy may be issued, and shall bring the Work to Final Acceptance within 10 days after the date specified for Substantial Completion.

Article 3. Contract Price. The Awarding Authority shall pay the Contractor, in current funds, for the performance of the Work, subject to additions and deductions by Approved Change Order(s), the Contract Price of and Zero Cents (\$00.00). The Unit Prices, if any, approved by the Awarding Authority are those included in the Contractor's General Bid. The following Alternates have been accepted, and their costs are included in the Contract Price:

Article 4. Approved Subcontractors. The filed Subcontractors listed in the Contractor's General Bid submitted by the Contractor have been approved for the performance of the specified portions of the Work subject to the Commonwealth's verification that they have complied with state corporation and partnership registration laws. No other filed Subcontractors and no non-filed Subcontractors shall be used for these or any other portions of the Work without the prior written approval of the Awarding Authority.

Article 5. Certifications. Pursuant to M.G.L. c. 62C, sec. 49A, the individual signing this Contract on behalf of the Contractor hereby certifies, under the penalties of perjury, that to the best of his or her knowledge and belief the Contractor has complied with all applicable state and federal tax laws. The individual signing this Contract on behalf of the Contractor further certifies under penalties of perjury that the Contractor is not presently debarred from doing public construction work in the Commonwealth under the provisions of M.G.L. c. 29, sec. 29F, or any other applicable debarment provisions of any other chapter of the General Laws or any rule or regulation promulgated thereunder and is not presently debarred from doing public construction work by any agency of the United States.

Article 6. The Contract Documents: The following documents form the Contract are incorporated by reference herein, and are referred to as the "Contract Documents:"

- The Instructions to Bidders
- The General Bid submitted by the Contractor
- This Department of Conservation and Recreation – Contractor Agreement
- The General Conditions of the Contract
- The Special Conditions [Note: the term "Special Conditions" may also refer to Division 1 of the Specifications.]
- The Plans and Specifications, including Addenda identified in Article 1 above
- All Approved Change Orders issued after execution of this Department of Conservation and Recreation - Contractor Agreement

Article 7. Minority Business Enterprise, Women Business Enterprise and Veteran-Owned Business Enterprises Participation requirements and Minority/Women and Veteran-Owned Business Enterprises Workforce Utilization Percentages: The applicable requirements, if any, for minority business enterprise and women business enterprise participation, as well as those for minority and women workforce utilization percentages established for this Contract are to be found at the Notice to Contractors for this project, at Part I – Instructions to Bidders, and are incorporated by reference herein.

Article 8. Liquidated Damages. For the purposes of Article VI of the General Conditions of the Contract, liquidated damages for delay are to be found at the Notice to Contractors for this project at Part I – Instructions to Bidders and are incorporated by reference herein.

Article 9. Insurance Requirements. The insurance requirements are set forth in the Instructions to Bidders and are incorporated herein.

In witness whereof, the parties hereto have caused this instrument to be executed in duplicate under seal as of the date set forth above.

Forms Used During Contract Award and Execution

PAYMENT BOND

PERFORMANCE BOND

CERTIFICATE OF CORPORATE VOTE OF AUTHORITY

CERTIFICATE OF COMPLIANCE WITH STATE TAX LAWS AND WITH UNEMPLOYMENT

COMPENSATION CONTRIBUTION REQUIREMENTS

CERTIFICATE OF LIABILITY INSURANCE

A. SEE PART I, SECTION 7 – ARTICLE 7.1 C.

B. ADDING IN THE DESCRIPTION **DCR AS ADDITIONAL INSURED.**

SCHEDULE FOR WOMEN AND MINORITY BUSINESS ENTERPRISE

LETTER OF INTENT – MINORITY AND WOMEN BUSINESS PARTICIPATION

SCHEDULE FOR VETERAN-OWNED BUSINESS ENTERPRISE

LETTER OF INTENT – VETERAN-OWNED BUSINESS ENTERPRISE

EXECUTIVE ORDER 546 – CONTRACTOR CERTIFICATION - VOB POLICY OF THE

COMMONWEALTH

EXECUTIVE ORDER 481 – CONTRACTOR CERTIFICATION - UNDOCUMENTED WORKERS

POLICY OF THE COMMONWEALTH

EQUAL EMPLOYMENT OPPORTUNITY COMPLIANCE FORM

IF APPLICABLE FORM OF SUBCONTRACTOR(S)

IN WITNESS WHEREOF, said Contractor has caused these presents to be signed in its name and its behalf under seal by its officers, duly authorized to do so, and the said Commonwealth has executed these presents by the Commissioner of said Department, or its authorized agent, as prescribed by law, who shall not incur any personal liability by reason of the execution of these presents or of anything herein contained, and who hereby certifies under penalties of perjury that all applicable provisions of M.G.L. c. 149, sec. 44J, have been complied with.

(Executed in duplicate under Seal)

CONTRACTOR:

By: _____ SIGNATURE & SEAL

Name: _____

Title: _____

Date: _____

**COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF CONSERVATION AND RECREATION**

By: _____

Name: _____ Brian M. Arrigo

Title: _____ Commissioner

Date: _____

PAYMENT BOND

BOND No. _____

Know all men by these presents, that

as principal and _____
as surety are held and firmly bound unto the Commonwealth of Massachusetts in the sum of _____
Dollars and Zero Cents (\$00.00) in lawful money of the United States of America, to be paid to the
Commonwealth of Massachusetts, for which payments, well and truly to be made, we bind
ourselves, our respective heirs, executors, administrators, successors, and assigns, jointly and
severally, firmly by these presents.

Whereas the said principal has made a Contract with the Commonwealth acting through its
Department of Conservation and Recreation ("Awarding Authority") the construction of

Now the condition of this obligation is such that if the principal shall pay for all labor performed or
furnished and for all materials used or employed in said Contract and in any and all duly authorized
modifications, alterations, extensions of time, changes or additions to said Contract that may hereafter
be made, notice to the surety of such modifications, alterations, extensions of time, changes or additions
being hereby waived, the foregoing to include any other purposes or items set out in, and to be subject
to, the provisions of Massachusetts General Laws, Chapter 30, Section 39A, and Chapter 149, Section
29, as amended, then this obligation shall become null and void; otherwise it shall remain in full force
and virtue.

In witness whereof we hereunto set our hand and seals this ____ day of _____, _____

(Print Name of General Contractor) (Seal)

(Print Name of Surety) (Seal)

By _____
(Signature – Title)

By _____
(Signature – Title)

Surety Address _____

PERFORMANCE BOND

BOND No. _____

Know all men by these presents, that

_____ as principal and _____ as surety are held and firmly bound unto the Commonwealth of Massachusetts in the sum of Dollars and Zero Cents(\$00.00) in lawful money of the United States of America, to be paid to the Commonwealth of Massachusetts, for which payments, well and truly to be made, we bind ourselves, our respective heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

Whereas the said principal has made a Contract with the Commonwealth acting through its Department of Conservation and Recreation ("Awarding Authority") the construction of

Now the condition of this obligation is such that if the principal shall well and truly keep and perform all the undertakings, covenants, agreements, terms and conditions of said Contract and any extensions thereof that may be granted by the Commonwealth, with or without notice to the surety, and during the life of any guarantee required under the Contract, and shall also well and truly keep and perform all the undertakings, covenants, agreements, terms and conditions of any and all duly authorized modifications, alterations, changes or additions to said Contract that may hereafter be made, notice to the surety of such modifications, alterations, changes or additions being hereby waived, then this obligation shall become null and void; otherwise it shall remain in full force and virtue.

In the event that the Contract is abandoned by the Contractor or is terminated by the Commonwealth under the provisions of said Contract, said surety shall, if requested in writing by the Commonwealth, take such action as is necessary to complete the Contract.

In witness whereof we hereunto set our hand and seals this _____ day of _____, _____

_____(Seal)
(Print Name of General Contractor)

_____(Seal)
(Print Name of Surety)

By _____
(Signature – Title)

By _____
(Signature – Title)

Surety Address _____

CERTIFICATE OF CORPORATE VOTE

I hereby certify that I am the ____ clerk, ____ assistant clerk, of

____ (the "Corporation") and that at a
(Name of Corporation)

duly authorized meeting of the Board of Directors of the Corporation held on

____ in ____ at which a quorum was
(Date) (Location)

present and voting it was voted to authorize ____
(Name)

____ of the Corporation to execute
(Officer Title)

and deliver on behalf of the Corporation Contract, and to act as principal to execute bonds in connection therewith,

I further certify that ____ is the duly qualified and acting
(Name of Corporate Officer)

____ of the Corporation and that said vote has not been
(Officer Title)

Repealed, rescinded, or amended.

Name

Print Name

Date

(CORPORATE SEAL)

SUBSCRIBED AND SWORN TO THIS ____ DAY OF _____, 20____ BEFORE ME

Notary Public

My Commission Expires: _____

CERTIFICATE OF LLC VOTE

N/A

_____, 2025

I hereby certify, warrant and represent that I am the _____ of
the _____ (the "LLC") and that
(Name of LLC)

I am fully and unconditionally authorized to pursuant to the Operating Agreement of the LLC to execute and deliver on behalf of the LLC a contract and all amendments thereto, and to act as principal and to execute bonds in connection therewith:

Mass. State Project No. _____

Project Title: _____

I further certify under the penalties of perjury that I, _____,
am the duly qualified and acting member and principal of the LLC for all purposes.

.

Name

Print Name

Date

SUBSCRIBED AND SWORN TO THIS ____ DAY OF _____ BEFORE ME

Notary Public
My Commission Expires: _____

CERTIFICATE OF COMPLIANCE WITH STATE TAX LAWS AND WITH UNEMPLOYMENT
COMPENSATION CONTRIBUTION REQUIREMENTS

Pursuant to MGL, c. 62C, s. 49A and MGL, c. 515A, s. 29A, I,

_____ authorized signatory for

_____ whose principal place of business is at

_____ do hereby certify

under penalties of perjury that _____ has filed all

state tax returns and paid all taxes as required by law and has complied with all state laws

pertaining to contributions to the unemployment compensation fund and to payments

in lieu of contributions.

The Business Organization Social Security Number or Federal Identification Number is

_____.

Signed under the penalties of perjury the _____ day of _____ 20_____

Signature: _____

Name and Title: _____

Schedule for Participation by Minority Business Enterprise
(To be completed and submitted within five calendar days from bid opening)

NOTE I: Participation of a Minority-owned enterprise may be counted in only one category.

Minority Business Enterprise Participation in the work

Name & address of MBE Requirement 6%	Dollar Value of Participation	Nature of Participation
1. _____ _____		
2. _____ _____		
3. _____ _____		
4. _____ _____		
5. _____ _____		
6. _____ _____		

Total MBE Commitment: _____

Participation (divide Total Commitment by Total Bid Price)= _____ Percentage MBE

The bidder agrees to furnish implementation reports as required by the Department to indicate the MBE(s) which it has used or intends to use. Breach of this commitment constitutes a breach of contract.

Name of bidder: _____
 Date: _____ By: _____

Letter of Intent – Minority Business Enterprise Participation

(To be completed by W or MBE and Submitted by the Low Bidder within five calendar days of bid opening)

Project Number: _____

MBE

Project Location: _____

To: _____

Name of General Bidder

1. My company has been certified by SDO (Supplier Diversity Office) and it has not changed its minority ownership, control, or management without notifying SDO within thirty (30) calendar days of such a change.
2. My company understands that if your company is awarded the contract, your company intends to enter into an agreement with my company to perform the activity described below for the prices indicated. My firm also understands that your firm, as General Bidder, will make substitutions and quantity changes as allowed or required by the provisions of the contract with the Commonwealth.
3. This firm understands that under the terms of Article XIII of the contract, only work **performed** by an MBE will be credited toward MBE participation requirements, and this firm **cannot assign or subcontract out any of its work** without prior written approval of the DCR Compliance Office, and that any such assignment or subcontracting will not be credited toward MBE participation requirements.

W or MBE PARTICIPATION

Contract Item	Description of Activity (with Notation such as "Labor Only", "Material Only", etc.)	Quantity	Unit Price	Total Amount
------------------	---	----------	------------	--------------

Total Dollar Value: _____

(Additional copies of this form shall be prepared by the Contractor in the quantity necessary to comply with the contract.)

Name of MBE

Firm _____ Authorized Signature _____

Business Address _____

Print Name _____ Title _____

Telephone No. _____ Cell: _____ Date _____

Schedule for Participation by Women Business Enterprise
(To be completed and submitted within five calendar days from bid opening)

NOTE I: Participation of a Woman-owned enterprise may be counted in only one category.

Minority Business Enterprise Participation in the work

Name & address of WBE 10%	Dollar Value of Participation	Nature Participation
1. _____ _____		
2. _____ _____		
3. _____ _____		
4. _____ _____		
5. _____ _____		
6. _____ _____		

Total WBE Commitment: _____

Percentage WBE Participation (divide Total Commitment by Total Bid Price) = _____

The bidder agrees to furnish implementation reports as required by the Department to indicate the WBE(s) which it has used or intends to use. Breach of this commitment constitutes a breach of contract.

Name of bidder: _____

Date: _____ By: _____

Letter of Intent – Women Business Enterprise Participation

(To be completed by WBE and Submitted by the Low Bidder within five calendar days of bid opening)

Project Number: _____

WBE

Project Location: _____

To: _____

Name of General Bidder

4. My company has been certified by SDO (Supplier Diversity Office) and it has not changed its women ownership, control, or management without notifying SDO within thirty (30) calendar days of such a change.
5. My company understands that if your company is awarded the contract, your company intends to enter into an agreement with my company to perform the activity described below for the prices indicated. My firm also understands that your firm, as General Bidder, will make substitutions and quantity changes as allowed or required by the provisions of the contract with the Commonwealth.
6. This firm understands that under the terms of Article XIII of the contract, only work **performed** by a WBE will be credited toward WBE participation requirements, and this firm **cannot assign or subcontract out any of its work** without prior written approval of the DCR Compliance Office, and that any such assignment or subcontracting will not be credited toward WBE participation requirements.

W or MBE PARTICIPATION

Contract Item	Description of Activity (with Notation such as "Labor Only", "Material Only", etc.)	Quantity	Unit Price	Total Amount
------------------	---	----------	------------	--------------

Total Dollar Value: _____

(Additional copies of this form shall be prepared by the Contractor in the quantity necessary to comply with the contract.)

Name of WBE Firm_Authorized Signature_____

Business Address_____

Print Name_____Title_____

Telephone No._____Cell:_____Date_____

**COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF CONSERVATION AND RECREATION
VETERAN OWNED BUSINESS ENTERPRISE POLICY
AND CONTRACTOR CERTIFICATION**

In accordance with Executive Order No. 546, it is the policy of the Commonwealth and its executive agencies to promote self-reliance among veterans by offering such veterans who own and control business enterprises the opportunity to participate in state contracting activity, as well as to assist and encourage the participation of businesses owned and controlled by veterans in all areas of state procurement contracting, including contracts for public construction, design services, and commodities and services.

The Massachusetts Executive Office of Administration and Finance has therefore established the Veteran-Owned Business Enterprise (VOBE) Program (the "Program") to oversee the inclusion of business enterprises owned and controlled by veterans in all areas of state procurement contracting, including contracts for construction, design and professional services, and commodities and services. For more information on this Order, see:
<http://www.mass.gov/governor/legislationeeexecorder/executiveorder/executive-order-no-546.html>.

DCR Requires Contractors to acknowledge this policy and the requirements as provided in the contract by signing this certification as well as the Contract Documents.

CONTRACTOR CERTIFICATION

As evidence by the signature of the Contractor's Authorized Signatory below, the Contractor certifies under the pains and penalties of perjury that the Contractor acknowledges the above-referenced policy as set forth in Executive Order 546, has read Executive Order 546, and will abide the requirements concerning the policy and order as set forth in the referenced Contract. The Contractor acknowledges that if the Contractor has not submitted an appropriate Schedule for VOB Participation and appropriate Letters of Intent establishing that the VOB participation requirements for the project will be met, the Contractor may not be considered eligible for Award of the Contract unless he/she requests a waiver by completing and submitting the waiver form to the Contracts Administrator/DCR and that request is approved. The Contractor also understands and agrees that a breach of any of these terms during the period of the Contract may be regarded as a material breach, subjecting the Contractor to sanctions, including but not limited to monetary penalties, withholding of payments, contract suspension and /or termination.

Contractor Authorizing Signature

Date:_____

Print Name

Title:_____

Telephone:_____

Cell:_____

Email:_____

Schedule for Participation by Veteran-Owned Business Enterprise

(To be completed and submitted within five (5) calendar days from bid opening)

NOTE: Participation of a Veteran-Owned Enterprise may be counted in only one category; the same participation cannot be used in computing the percentage of DBE/MBE/WBE participation.

Veteran-Owned Business Enterprise Participation in the work

Waived per Addenda #1

Name & address of VOB 3%	Dollar Value of Participation	Nature Participation
1. _____		

2. _____		

3. _____		

4. _____		

5. _____		

6. _____		

Total VOB Commitment: _____

Percent VOB Participation (divide Total Commitment by Total Bid Price)= _____

The bidder agrees to furnish implementation reports as required by the Department to indicate the VOB(s) which it has used or intends to use. Breach of this commitment constitutes a breach of the contract.

Name of bidder: _____

Date: _____ By: _____

Letter of Intent – Veteran-Owned Business Enterprise Participation

(To be completed by VOB and Submitted by the Low Bidder within five (5) calendar days of bid opening; use and prepare extra forms as needed)

DCR Contract/ Project Number: _____

Project Location: _____

To: _____

VOBE

Name of General Bidder

My company has been certified by the Department of Veterans Affairs and or [Supplier Diversity Office](#) (SDO). it has not changed its veteran ownership, control, or management without notifying the Department of Veterans Affairs within thirty (30) calendar days of such a change.

1. My company understands that if your company is awarded the contract, your company intends to enter into an agreement with my company to perform the activity described below for the prices indicated. My firm also understands that your firm, as General Bidder, will make substitutions and quantity changes as allowed or required by the provisions of the contract with the Commonwealth.
2. This firm understands that under all relevant terms of the contract, only work **performed** by an VOB will be credited toward VOB participation requirements, and this firm **cannot assign or subcontract out any of its work** without prior written approval of the DCR Compliance Office, and that any such assignment or subcontracting will not be credited toward VOB participation requirements.

VOBE PARTICIPATION

Contract **Description of Activity** (with Item Notation such as "Labor Only", Quantity, Unit Price, Total Amount, "Material Only", etc.):

Activity	Labor or Material Only?	Quantity Unit Price	Total Dollar Value

VOBE Firm Name _____

Authorized Signature _____

Printed Name _____ Title _____

Telephone No. _____ Cell No. _____

E-mail: _____@_____; Date _____

INSTRUCTIONS:

Executive Order 481 applies to all state agencies in the Executive Branch, including all executive offices, boards, commissions, agencies, departments, divisions, councils, bureaus, and offices, now existing and hereafter established. As it is the policy of the Executive Branch to prohibit the use of undocumented workers in connection with the performance of state contracts, all contracts entered after February 23, 2007, require that contractors, as a condition of receiving Commonwealth funds under any Executive Branch contract, make the following certification:

CONTRACTOR CERTIFICATION:

As evidenced by the signature of the Contractor's Authorized Signatory below, the Contractor certifies under the pains and penalties of perjury that the Contractor shall not knowingly use undocumented workers in connection with the performance of all Executive Branch contracts; that pursuant to federal requirements, the Contractor shall verify the immigration status of all workers assigned to such contracts without engaging in unlawful discrimination; and that the Contractor shall not knowingly or recklessly alter, falsify, or accept altered or falsified documents from any such worker(s). The Contractor understands and agrees that breach of any of these terms during the period of each contract may be regarded as a material breach, subjecting the Contractor to sanctions, including but not limited to monetary penalties, withholding of payments, contract suspension or termination.

_____ Date: _____
Contractor Authorizing Signature

Print Name

Title: _____ Telephone: _____

Cell: _____ Email: _____

EQUAL EMPLOYMENT OPPORTUNITY COMPLIANCE FORM

Contractor's Certificate

A contractor shall not be eligible for award of a contract unless such a contractor has submitted the following certification to the Awarding Authority, said certification shall be deemed a part of the resulting contract:

Contractor's Certification

X

(Contractor)

certifies that it intends to use the following listed **certification trades** in the work subject to this contract.

X

and, further, that it will comply with the minority manpower ratio and specific affirmative action steps contained herein; and will obtain from each of its subcontractors and submit to the Awarding Authority prior to the award of any subcontract under this contract, the subcontractor certification required by these bid conditions.

X

(Signature of authorized representative of contractor)

Subcontractor's Certification

Prior to the award of any subcontract, regardless of tier, the prospective subcontractor must execute and submit to the general contractor the following certification, which shall be deemed a part of the resulting subcontract:

(Subcontractor)

certifies that: it intends to use the following listed construction trades in the work under the subcontract

and, further, it will comply with the manpower ratio and specific affirmative action steps contained herein and will obtain from each of the subcontractors prior to the award of any subcontract under this subcontract, the subcontractor certification required by these bid conditions.

(Signature of authorized representative of subcontractor)

To ensure that said subcontractor's certification becomes a part of all subcontracts under the general contract, no subcontract shall be executed unless or until an authorized representative of the Awarding Authority administering this contract has determined, in writing, that said certification has been incorporated in such subcontract, regardless of tier. Any subcontract executed without such written approval shall be void.

Exhibit A
Executive Order 504 Contractor Certification Form

BIDDER/CONTRACTOR LEGAL NAME:

BIDDER/CONTRACTOR VENDOR/CUSTOMER CODE: VC

Executive Order 504: For all Contracts involving the Contractor's access to personal information, as defined in M.G.L. c. 93H, and personal data, as defined in M.G.L. c. 66A, owned or controlled by Executive Department agencies, or access to agency systems containing such information or data (herein collectively "personal information"), Contractor certifies under the pains and penalties of perjury that the Contractor (1) has read Commonwealth of Massachusetts Executive Order 504 and agrees to protect any and all personal information; and (2) has reviewed all of the Commonwealth of Massachusetts Information Technology Division's Security Policies available at www.mass.gov/ITD under Policies and Standards.

Notwithstanding any contractual provision to the contrary, in connection with the Contractor's performance under this Contract, for all state agencies in the Executive Department, including all executive offices, boards, commissions, agencies, departments, divisions, councils, bureaus, and offices, now existing and hereafter established, the Contractor shall:

(1) obtain a copy, review, and comply with the contracting agency's Information Security Program (ISP) and any pertinent security guidelines, standards, and policies; (2) comply with all of the Commonwealth of Massachusetts Information Technology Division's Security Policies ("Security Policies") available at www.mass.gov/ITD under Policies and Standards.

(2) communicate and enforce the contracting agency's ISP and such Security Policies against all employees (whether such employees are direct or contracted) and subcontractors.

(3) implement and maintain any other reasonable appropriate security procedures and practices necessary to protect personal information to which the Contractor is given access by the contracting agency from the unauthorized access, destruction, use, modification, disclosure, or loss.

(4) be responsible for the full or partial breach of any of these terms by its employees (whether such employees are direct or contracted) or subcontractors during or after the term of this Contract, and any breach of these terms may be regarded as a material breach of this Contract.

(5) in the event of any unauthorized access, destruction, use, modification, disclosure or loss of the personal information (collectively referred to as the "unauthorized use"): (a) immediately notify the contracting agency if the Contractor becomes aware of the unauthorized use; (b) provide full cooperation and access to information necessary for the contracting agency to determine the scope of the unauthorized use; and (c) provide full cooperation and access to information necessary for the contracting agency and the Contractor to fulfill any notification requirements.

Breach of these terms may be regarded as a material breach of this Contract, such that the Commonwealth may exercise all contractual rights and remedies, including without limitation indemnification under Section 11 of the Commonwealth's Terms and Conditions, withholding of payments, contract suspension, or termination. In addition, the Contractor may be subject to applicable statutory or regulatory penalties, including and without limitation, those imposed pursuant to M.G.L. c. 93H and under M.G.L. c. 214, § 3B for violations under M.G.L. c. 66A.

Bidder/Contractor Name: _____

Bidder/Contractor Authorized Signature: _____

Print Name and Title of Authorized Signatory: _____

Date: _____

This Certification may be signed once and photocopied to be attached to any
Commonwealth Contract that does not already contain this Certification Language and shall be interpreted to be incorporated by reference
into any applicable contract subject to Executive Order 504 for this Contractor.



COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF CONSERVATION & RECREATION
STANDARD CONSTRUCTION CONTRACT

PART III

GENERAL CONDITIONS OF THE CONTRACT

FOR PROJECTS SUBJECT TO M.G.L. CH. 149 OR
M.G.L. CH. 30, SEC. 39M

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ARTICLE I: DEFINITION OF TERMS

The following words shall have the following meanings as used in this Contract:

Advertisement: The Advertisement or Notice Inviting Bids or Proposals for the Work identified in Article 1 of the Department of Conservation and Recreation - Contractor Agreement.

Approval: (or approved): An approval in writing signed by the authorized signatory of the Awarding Authority.

As directed (As permitted, as required, as determined or words of like effect): The direction, permission, requirement, or determination of the Awarding Authority. Similarly, *approved*, *acceptable*, *satisfactory* or words of like import shall mean approved by or acceptable or satisfactory to the Awarding Authority.

Awarding Authority: The Department of Conservation and Recreation, the public agency awarding and administering this Contract, as identified in the Department of Conservation and Recreation - Contractor Agreement. Where the Awarding Authority is an agency of the Commonwealth, references to the Awarding Authority shall also include the Commonwealth and its agencies.

Building Code: All applicable rules and regulations to which the Awarding Authority is subject, and which are contained or referenced in the code authorized by M.G.L. c. 143, sec. 93 et seq., including all amendments thereto.

Change Order: (1) A written order not requiring the consent of the Contractor, signed by the Project Engineer, and designated as a Change Order, directing the Contractor to make changes in the Work within the general scope of the Contract, or (2) any written or oral order from the Project Engineer that causes any change in the Work, provided that the Contractor has given the Awarding Authority written notice stating the date, circumstances, and source of the order and that the Contractor regards the order as a Change Order.

Contract: The Contract formed by the Contract Documents as defined in Article 6 of the Department of Conservation and Recreation - Contractor Agreement.

Contract Documents: The documents listed in Article 6 of the Department of Conservation and Recreation - Contractor Agreement.

Contract Modification: Any alteration of the Contract Documents accomplished by a written agreement properly executed by the parties to this Contract.

Contract Price: The Contract Price stated in Article 3 of the Department of Conservation and Recreation - Contractor Agreement, which is the total sum, owed to the Contractor for all the Work.

DCR: The Department of Conservation and Recreation, the public agency awarding and administering this Contract.

Designer: The architect or engineer who prepared the plans and specifications for the work, identified as the Designer in Article 1 of the Department of Conservation and Recreation - Contractor Agreement.

Dispute Review Board: A panel of three experienced impartial reviewers organized and agreed upon by the DCR and Contractor. The Board members are provided with project plans and Specifications and become familiar with project procedures and participants. The Board meets on the job site regularly to encourage the resolution of disputes at the job level and renders non-binding recommendations on the resolution of the dispute.

Drawings: The Drawings are the graphic and pictorial portions of the Contract Documents, wherever located and whenever issued, showing the design, location, and dimensions of the Work, generally including Plans, elevations, sections, details, schedules, and diagrams.

Engineer: The Project Engineer, except that the term "Resident Engineer" shall have the meaning otherwise specified herein.

Final Acceptance: The written determination by the Awarding Authority that the Work has been 100% completed, except for the Contractor's indemnification obligations, warranty obligations, obligations to continue to maintain insurance coverage for the time periods provided in the Contract Documents, and any other obligations which are intended to survive Final Acceptance and/or the termination of the Contract.

General Bid: The completed bid form submitted by the Contractor in accordance with the requirements of either M.G.L. c. 149 or M.G.L. c. 30, sec. 39M.

Laws: All applicable statutes, regulations, ordinances, codes, laws, orders, decrees, approvals, certificates, and

requirements of governmental and quasi-governmental authorities.

Neutral: An impartial third party not having an interest in the Owner, DCR, the Contractor or the Project.

Notice to Proceed: The written notice provided by the Awarding Authority to the Contractor which authorizes the Contractor to commence the Work as of a date specified therein and complete the entire Work of the Contract by a date specified therein.

Or equal (or words of like import): Equal in the opinion of the Awarding Authority, determined pursuant to the provisions of M.G.L. c. 30, sec. 39M and the provisions of these General Conditions of the Contract.

Owner: The Commonwealth of Massachusetts or political subdivision thereof, authority, or other instrumentality that will own the Work.

Plan(s): Drawing(s).

Product Data: Product Data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by the Contractor or its Subcontractors and suppliers to illustrate materials or equipment for some portion of the Work. Product data also include any such information or instructions produced by the manufacturer or distributor of such materials or equipment and made readily available by said manufacturer or distributor.

Progress Schedule: The progress schedule Approved by the Awarding Authority in accordance with Article VI of these General Conditions of the Contract.

Project: The Project is the total construction of which the Work performed under the Contract Documents may be the whole or a part and which may include construction by the Owner, the Department of Conservation and Recreation, or by separate contractors.

Project Engineer: The Awarding Authority's representative assigned to the Project.

Punch List: A list of items determined by the Awarding Authority to be minor incomplete or unsatisfactory work items that do not materially impair the usefulness of the Work for its intended purpose.

Resident Engineer: The On-Site representative of the Awarding Authority.

Samples: Samples are physical examples that illustrate materials, equipment, or workmanship and establish standards by which the Work will be judged.

Schedule of Values: The schedule Approved by the DCR pursuant to Article VIII of these General Conditions of the Contract which allocates the Contract Price to the various portions of the Work and is used as a basis for payments to the Contractor.

Shop Drawings: Drawings, diagrams, details, schedules, and other data specially prepared for the Work by the Contractor or a Subcontractor, Sub-subcontractor, manufacturer, supplier, or distributor to illustrate a portion of the Work.

Site: The land and, if any, building(s), space within any such building(s), or other structures on which or in which the Contractor is to perform the Work.

Specifications: The Specifications are that portion of the Contract Documents consisting of the written requirements for materials, equipment, construction systems, standards, and workmanship for the Work and performance of related services.

Subcontractor: Person or entity with whom the Contractor contracts to perform the Work, except as otherwise specifically provided or required herein or by Law.

Substantial Completion: For work subject to M.G.L. c. 30 sec. 39K, "substantial completion" shall occur when (1) 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 DCR, less than one percent of the original contract price, or (2) the Contractor substantially completes the Work and the DCR takes possession for occupancy, whichever occurs first. For work subject to M.G.L. c. 30 sec. 39G, "substantial completion" shall mean either that the work required by the Contract has been fully completed, completed except for work having a Contract Price of less than one percent of the then adjusted total Contract Price, 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.

Superintendent: The licensed construction supervisor who is an employee of the Contractor designated to be in full-time attendance at the Site throughout the prosecution and progress of the Work and who shall have complete authority to act for the Contractor.

Work: The Work defined in Article 1 of the Department of Conservation and Recreation - Contractor Agreement, Article II, Section 2 of these General Conditions of the Contract and otherwise in the Contract Documents.

Working Hours: 7:00 a.m. to 5:00 p.m., but not more than eight hours per day, Monday through Friday, unless

otherwise specified by applicable Laws or deemed necessary by the DCR for traffic considerations or to minimize another contract impacts to the public.

All terms that this Contract defines may be used with or without initial capital letters. Other terms, abbreviations and references are defined as they appear herein. Words and abbreviations that are not defined in the Contract Documents, but which have recognized technical, or trade meanings are used in accordance with those meanings. For additional definitions of terms, abbreviations and references refer to the *Special Conditions or Specifications*.

ARTICLE II: EXECUTION OF THE CONTRACT, SCOPE OF WORK, INTERPRETATION OF CONTRACT DOCUMENTS

1. Execution.

The execution of the Department of Conservation and Recreation – Contractor Agreement by the Contractor is a representation that the Contractor has visited the Site, has become familiar with local conditions under which the Work is to be performed and has correlated personal observations with requirements of the Contract Documents.

2. Scope of Work.

The Work consists of the Work identified in the Contract Documents. The Work comprises the completed construction required by the Contract Documents and includes all labor, tools, materials, supplies, equipment, permits, approvals, paperwork, calculations, submittals, and certificates necessary to develop, construct and complete the Work in accordance with all Laws, and all construction and other services required to be supervised, overseen, performed or furnished by the Contractor or that the Contract Documents require the Contractor to cause to be supervised, overseen, performed or furnished. The Contractor shall provide and perform for the Contract Price all the duties and obligations set forth in the Contract Documents.

3. Interpretation.

A. The Plans and Specifications and other Contract Documents are to be considered together and are intended to be mutually complementary, so that any work shown on the Plans though not specified in the Specifications, and any work specified in the Specifications though not shown on the Plans, is to be executed by the Contractor as a part of this Contract.

B. All things that in the opinion of the Project Engineer may be reasonably inferred from the Plans, Specifications and other Contract Documents are to be executed by the Contractor. The Project Engineer shall determine whether the detail Plans conform to the general Plans and Contract Documents, except as may be otherwise determined by the DCR.

C. The tables of contents, titles, headings and marginal notes or sub-scripts contained herein are solely to facilitate references, are not intended to be construed as provisions of the Contract, and in no way affect the interpretation of the provisions to which they refer.

D. Where reference is made in the Contract Documents to publications, standards, or codes issued by associations or societies, such reference shall be interpreted to mean the current edition of such publications, standards, or codes, including revisions in effect on the date of the Advertisement, notwithstanding any reference to a particular date. The foregoing sentence shall not apply to the dates, if any, specified with respect to insurance policy endorsement forms.

E. In case of any conflict among the Contract Documents, unless the context clearly otherwise requires, the Contract Documents shall be construed according to the following priorities:

- Priority: Contract Modifications
- Second Priority: Department of Conservation and Recreation - Contractor Agreement
- Third Priority: General Conditions of the Contract
- Fourth Priority: Special Conditions of the Contract
- Fifth Priority: Drawings -- Schedules take precedence over enlarged detail Drawings, and enlarged Detail Drawings take precedence over reduced scale Drawings; figured dimensions shall prevail over scale.
- Sixth Priority: Specifications

4. Distribution of Work.

The distribution of the Work is intended to be described under the appropriate trades and, except for filed sub-bid work, may be redistributed, except as directed herein, provided that such redistribution shall cause no controversy among the trades and no delay in the progress of the Work.

5. Contract Price.

The Contract Price constitutes full compensation to the Contractor for everything to be performed and furnished in connection with the Work and for all damages arising out of the performance of the Work and/or the action of the elements and constitutes the maximum compensation regardless of any difficulty incurred by the Contractor in connection with the Work or in consequence of any suspension or discontinuance of the Work. The costs associated with the requirements of the General Conditions and any required in the Special Conditions or Specifications shall be included in the Contract Price and no direct or separate payment shall be made to the Contractor.

ARTICLE III: CONTROL OF WORK/ADMINISTRATION OF THE CONTRACT

1. DCR.

The Project Engineer shall be responsible for the general administration of the Contract. Except as otherwise specifically provided herein, the Project Engineer shall decide all questions which may arise as to the conduct, quantity, quality, equality, acceptability, fitness, and rate of progress of the several kinds of work and materials to be performed and furnished under this Contract and shall decide all questions which may arise as to the interpretation of the Plans and Specifications and as to the fulfillment of this Contract on the part of the Contractor.

2. Right of Access to Work.

The DCR, and persons designated by it, may for any purpose enter upon the Work, the Site, and premises used by the Contractor, and the Contractor shall provide safe facilities therefor. Other contractors of the DCR may also enter upon the same for the purposes which may be required by their contracts or work. Any differences or conflicts which may arise between the Contractor and other contractors of the DCR with respect to their work shall be initially resolved by the DCR.

3. Inspection No Waiver.

No inspection by the DCR or its employees or agents, and no order, measurement, certificate, approval, payment order, payment, acceptance or any other action or inaction of any of them, shall operate as a waiver by the DCR of any provision of this Contract.

ARTICLE IV: GENERAL PERFORMANCE OBLIGATIONS OF THE CONTRACTOR

The Contractor shall complete for the Contract Price all the Work in a proper, thorough, and workmanlike manner in accordance with the Contract Documents. Without limiting the foregoing and without limiting the Contractor's obligations under any other provision of the Contract Documents, the Contractor shall for the Contract Price perform the following general obligations:

1. Review of Contract Documents and Field Conditions.

A. Before commencing the Work, the Contractor shall carefully study the Contract Documents and carefully compare all Specifications, Plans, Drawings, figures, dimensions, lines, marks, scales, directions of the Project Engineer, and any other information provided by the DCR and shall at once report to the Project Engineer in writing any questions, errors, inconsistencies, or omissions.

B. Before commencing the Work, the Contractor shall take field measurements and verify field conditions and shall carefully compare such field measurements and conditions and other information known to the Contractor with the Contract Documents and shall at once report to the Project Engineer in writing any questions, errors, inconsistencies, or omissions.

C. Any work performed by the Contractor after the discovery of said discrepancies without the written approval of the DCR shall be at the Contractor's risk and expense.

D. The Contractor shall be responsible for all errors in the Work arising from the Contractor's failure to comply with any of the requirements set forth in this section. The Contractor shall not be entitled to any extra compensation for any work or expense arising from or caused by his/her failure to comply with said requirements.

2. Supervision and Construction Procedures: Coordination: Cutting and Patching.

A. The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for, and shall have control over, construction means, methods, techniques, sequences, and procedures, and shall be responsible for coordinating all portions of the Work under the Contract.

B. The Contractor shall be responsible for the proper fitting of all work and the coordination of the operations of all trades, subcontractors, and material suppliers engaged upon the Work. The Contractor shall guarantee to each of its subcontractors all dimensions which they may require for the fitting of their work to all surrounding work. Where equipment and lines of piping are shown diagrammatically, the Contractor shall be responsible for the coordination and orderly arrangement of the various lines of embedded piping and conduit included in the Work. The Contractor shall coordinate the work of any Subcontractor and prevent all interferences between the equipment, lines of piping or structural and architectural features, and avoid any unsightly arrangements in exposed work.

C. The Contractor should note that other contractors may be working on or near the Site where the Contractor's Work is being performed. The Contractor shall coordinate his/her work and the operations of all trades, subcontractors, and material suppliers engaged upon the Work so as not to interfere with or hinder the progress or completion of work being performed under another DCR contract.

D. All necessary cutting, coring, drilling, grouting, and patching required to fit together the several parts of the Work shall be done by the Contractor, except as may be specifically noted otherwise under any filed sub-bid section of the Specifications.

E. The Contractor shall be responsible to the DCR for the acts and omissions of the Contractor's employees, agents and Subcontractors, and their agents and respective contractors' employees, and other persons performing portions of the Work or supplying materials therefor.

F. The Contractor shall be responsible for the inspection of portions of the Work already performed under this Contract to determine that such portions are in proper condition to receive subsequent Work.

G. The Contractor shall employ a registered land surveyor to perform any engineering required for establishing grades, lines, levels, dimensions, layouts, and reference points for the trades. The Contractor shall be responsible for maintaining benchmarks and other survey marks and shall replace any benchmarks or survey marks that may have become disturbed or destroyed. The Contractor shall verify the materials shown on the Drawings before laying out the Work and shall be responsible for any error resulting from its failure to exercise this precaution.

H. Unless otherwise required by the Plans and Specifications, or directed in writing by the DCR, Work shall be performed during regular Working Hours. However, if the Contractor desires to carry on the Work outside of regular working hours or on Saturdays, Sundays, or Massachusetts or federal holidays, then the Contractor shall allow ample time to allow satisfactory arrangements to be made for inspecting Work in progress and shall bear the costs of such inspection. The DCR shall bill the Contractor directly for such costs.

I. Work performed outside of regular Working Hours without the consent or knowledge of the DCR shall be subject to additional inspection and testing as directed by the DCR. The cost of this inspection and testing shall be borne by the Contractor whether the Work is found to be acceptable or not. The DCR at its election shall be entitled either to issue a credit Change Order to cover such cost or to withhold such cost from any further payments due the Contractor and/or to receive a payment from the Contractor of the amount of such cost.

3. Superintendent.

A. The Contractor shall employ a Superintendent whose appointment shall be subject to the Approval of the DCR. The Superintendent shall attend the Site full-time during the performance of the Work. The Superintendent shall represent the Contractor. Communications given to and from the Superintendent shall be deemed given to and from the Contractor. Important communications shall be confirmed in writing. Other communications shall be similarly confirmed upon written request in each case. The Superintendent shall attend each job meeting. The Superintendent shall be responsible for coordinating all the Work of the Contractor and the Subcontractors.

B. The Superintendent shall be a competent employee regularly employed by the Contractor. The Superintendent shall be licensed in accordance with the Building Code, if applicable, and shall have satisfactorily performed similar duties on previous construction projects similar in type, complexity, and scale to the Project. The Superintendent's resume shall be submitted to the DCR prior to commencement of construction together with such other information as the DCR may reasonably require determining whether to Approve of his or her appointment. Any change in the Superintendent shall require the prior consent of the DCR. The Contractor shall establish an emergency telephone line by which the DCR or its agents may contact the Superintendent during non-working hours.

4. Labor.

A. The Contractor shall employ only competent workers. The Contractor shall enforce strict discipline and good order among the Contractor's employees and other persons carrying out the Work. The Contractor shall not permit employment of unfit persons or persons not skilled in tasks assigned to them. Whenever the DCR shall notify the Contractor in writing that any worker is, in the DCR's opinion, incompetent, unfaithful, disorderly, or otherwise unsatisfactory, such employee shall be discharged from the Work and shall not again be employed on the Project except with the consent of the DCR.

B. The Contractor shall employ enough workers to carry on the Work with all proper speed in accordance with Laws, the requirements of the Contract Documents, and the Progress Schedule.

C. The Contractor shall procure materials from such sources and shall manage its own forces and the forces of its Subcontractors and any sub-subcontractors in such a manner as will result in harmonious labor relations on the Project Site. If union and nonunion workers are employed to perform any part of the Work, the Contractor shall establish and maintain separate entrances to the Site for the use of union and nonunion workers. The Contractor shall cause persons to be employed in the Work who will work in harmony with others so employed. Should the Work be stopped or materially delayed in the DCR's reasonable judgment due to a labor dispute, the DCR shall have the right to require the Contractor to employ substitutes acceptable to the DCR.

D. The Contractor shall bear the entire expense, and no separate or direct payment shall be made by the DCR, because of extra work which may be necessary because of inferior workmanship, or for specific items of work which are normally considered a part of good workmanship in completing any phase of the work.

5. Notices and Permits.

A. The Contractor at its sole cost shall take out and pay for all approvals, permits, certificates and licenses required by Laws, pay all charges and fees, and pay for (or cause the appropriate Subcontractor to pay for) all utilities required for the proper execution of the Work. All permits secured by the Contractor, complete with the application and orders of conditions, shall be kept on file in the Contractor's office and field office with copies submitted to the Project Engineer.

B. The Contractor shall comply with all Laws and shall give all notices required thereby.

C. Except as otherwise specified in this Contract, it is not the Contractor's responsibility to ascertain that the Contract Documents are in accordance with applicable Laws. However, if the Contractor observes that portions of the Contract Documents are at variance with the requirements of Laws, the Contractor shall promptly notify the DCR in writing, and necessary changes shall be accomplished by an appropriate Contract Modification.

D. If the Contractor performs work knowing it to be contrary to Laws without giving such notice to the DCR, the Contractor shall bear full responsibility for such Work and all costs attributable thereto, including, without limitation, corrections to the Work.

6. Lines, Marks etc.

The Contractor shall furnish batter boards and stakes and shall cause to be placed and maintained thereon to be easily read, such lines, marks and directions relating to the Work as the Project Engineer shall from time to time direct. The Project Engineer shall establish base lines and benchmarks on the Drawings for the locations of the Work but all other lines and grades in the field shall be determined by the Contractor.

7. Excavation.

The Contractor shall prevent by sheeting and shoring or bracing, if necessary, any caving or bulging of the sides of any excavation made by the Contractor, leaving sheeting, and shoring in place, or if any is removed, filling solid the spaces left thereby.

8. Dewatering/Hoisting/Staging.

The Contractor shall provide pumping, drainage, and disposal of all water and other flows so that no puddle, nuisance, or damage will be caused by water or flooding. If pumping results in contaminated water the Contractor shall take appropriate measures to treat this water prior to discharge and shall seek appropriate permits for discharge of water. The Contractor shall provide all hoisting equipment and machinery required for the proper execution of the Work. The Contractor shall provide all exterior and interior staging required to be over eight feet in height, except as may be otherwise provided in the Contract Documents.

9. Corrections to the Work: Inspection No Bar to Subsequent Corrections.

The DCR's inspection of the Work shall not relieve the Contractor of its responsibilities to fulfill the Contract obligations. Defective work may be rejected by the DCR whether such work and/or materials have been previously overlooked or misjudged by the Resident Engineer or Project Engineer and accepted for payment. If the Work or any part thereof shall be found defective at any time before the Final Acceptance of the whole Work, the Contractor shall forthwith cease the performance of any defective work in progress and, whether such work is still in progress, shall forthwith correct such defect in a manner satisfactory to the Project Engineer. If any material brought upon the Site for use in the Work, or selected for the same, shall be rejected by the Project Engineer as unsuitable or not in conformity with the Contract Documents, or as damaged by casualty or deteriorated due to improper storage at the Site or to any other factor, the Contractor shall forthwith remove such materials from the Site. The Contractor shall pay for the cost of making good all work or property of other contractors, the Owner or of the Department of Conservation and Recreation destroyed or damaged by such removal or replacement; repair any injury, defect, omission, or mistake in the Work as soon as it is discovered; finish and immediately make good any defect, omission, or mistake in the Work; and complete and leave the Work in perfect condition.

10. Sanitary Facilities.

The Contractor shall provide and maintain sanitary facilities for all persons employed on the Work, beginning with the first worker at the Site. Said facilities shall meet the following requirements unless otherwise specified in the Special Conditions or Specifications.

A. There shall be no fewer facilities than the number required by applicable Laws.

B. Facilities shall be always kept in a clean sanitary condition and shall be adequately screened to be inaccessible to flies. (**Note:** If existing sanitary facilities at the Site are to be used by the Contractor, this requirement will be modified accordingly in the Special Conditions or Specifications.)

11. Temporary Offices.

A. Contractor's Field office. The Contractor shall erect a temporary field office at or near the Site of the Work at which the Contractor's authorized representative shall be always present while the Work is in progress. Instructions, notices, and other communications delivered there by the DCR shall be deemed delivered to the Contractor. The Contractor shall adequately furnish and maintain this office in a clean, orderly condition.

B. Resident Engineer's Office. The Contractor shall erect an Office for the Resident Engineer if, and as required by the Special Conditions or Specifications of the Contract.

12. Telephones.

A. The Contractor shall provide and maintain telephone service in the Contractor's field office. The Contractor shall pay for all calls and costs relating to this service. The DCR and its employees and authorized agents shall always be allowed the use of this telephone service without charge. Telephone service and equipment shall meet the requirements, if any, of the Special Conditions or Specifications.

B. The Contractor shall also provide and maintain telephone service in the Resident Engineer's Office, when the Contractor is required to erect such office, for the use of the DCR and its employees and authorized agents. The Contractor shall pay for all calls and costs relating to this service. Telephone service and equipment shall meet the requirements, if any, of the Special Conditions or Specifications.

13. Project Sign.

A. The Contractor shall furnish and erect at a suitable location, Approved by the Project Engineer, at the start of the work, a sign having dimensions of at least eight (8) feet long by four (4) feet high, bearing the words: Massachusetts Department of Conservation and Recreation. Also included may be the project title, expected completion date, and facility name.

B. The Contractor shall submit the design of the sign to the Project Engineer for review and approval prior to posting.

14. Contract Documents and Samples at the Site.

The Contractor shall maintain at the Site for the use and information of the DCR one record copy of the Drawings, Specifications, Addenda, Change Orders, Approved Shop Drawings, Product Data, Samples, updated Progress Schedule, and all other submittals, all in good order and marked currently to record changes and selections made during construction. These shall be available to the DCR and shall be delivered to the DCR upon completion of the Work.

15. Safety Laws, Regulations, and Practices.

- A.** The Contractor shall comply with all health and safety Laws applicable to the Work. Without limitation,
- (1) If the Contractor uses or stores toxic or hazardous substances it shall comply with M.G.L. c. 111F, sec. 2, the "Right to Know" law and regulations promulgated by the Department of Public Health, 105 CMR 670, the Department of Environmental Protection, 310 CMR 33, and the Department of Labor and Workforce Development, 441 CMR 21; and shall post a Workplace Notice obtainable from the Department of Labor and Workforce Development.
 - (2) The Contractor shall comply with the Federal Resource Conservation and Recovery Act, the Federal Comprehensive Environmental Response, Compensation and Liability Act, M.G.L. c. 21C, M.G. L. c. 21E, and any other Laws affecting toxic or hazardous materials, solid, special, or hazardous waste (collectively "Hazardous Materials Laws"). Should the Contractor discover unforeseen materials subject to Hazardous Materials Laws at the Site, the Contractor shall immediately notify the DCR of such discovery.
 - (3) The Contractor shall be responsible for the location of all utilities in connection with the Work. Without limiting the foregoing, the Contractor shall comply with Dig Safe Laws. Dig Safe is the Utility Underground Plant Damage Prevention System established pursuant to M.G.L. c. 164, sec. 76D. This System is operated by Dig Safe Systems, Inc., located at 331 Montvale Avenue, Woburn, MA 01801, whose toll-free telephone number is 1-888-DIG-SAFE (1-888-344-7233). The Contractor shall notify Dig Safe of contemplated excavation, demolition, or explosive work in public or private ways, and in any utility company right of way or easement, by certified mail, with a copy to Department of Environmental Protection (DEP). This notice shall be given at least 72 hours prior to the work, but not more than sixty days before the work is to be done. Such notice shall state the name of the street or the route number of the way and shall include an accurate description of the location and nature of the proposed work. Dig-Safe is required to respond to the notice within 72 hours of receipt by designating the location of pipes, mains, wires, or conduits at the Site. The Contractor shall not commence work until Dig-Safe has responded. The work shall be performed in such manner and with reasonable precautions taken to avoid damage to utilities under the surface at the work location. The Contractor shall provide the Superintendent with current Dig-Safe regulations, and a copy of M.G.L. c. 82, sec. 40. Any costs related to the services performed by Dig-Safe shall be borne by the Contractor.
 - (4) The Contractor shall comply with Public Law 92-596, "Occupational Safety and Health Act of 1970" (OSHA), with respect to all rules and regulations pertaining to construction, U.S. Code Title 29, sections 651 et seq. including Volume 36, numbers 75 and 105 of the Federal Register as amended, and as published by the U.S. Department of Labor.
 - (5) The Contractor shall comply with M.G.L. c. 149, sec. 129A, relative to shoring and bracing of trenches.

B. The Contractor shall take reasonable precautions to prevent damage, injury, or loss to persons (whether under his management, DCR staff, or the public) or property. Nothing herein shall relieve Subcontractors of their responsibility for the safety of persons and property, and for compliance with all Laws applicable to the Work and their activities in connection therewith. Without limitation, the Contractor shall take all reasonable precautions for the safety of, and the prevention of injury or damage to (1) all agents and employees and contractors on the Work and all other persons who may be affected thereby including the general public, (2) all the Work and all materials and equipment to be incorporated therein, whether in storage on or off the Site, under the care custody or control of the Contractor or any of its Subcontractors or any contractors directly or indirectly contracting through any of them, and (3) other property at the Site or adjacent thereto, including but not limited to trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of the Work. The Contractor shall promptly remedy all damage or loss to any such property caused in whole or in part by the Contractor, any Subcontractor, or anyone directly or indirectly contracted or employed by any of them or by anyone for whose acts any of them may be liable. Without limiting the foregoing, the Contractor shall:

- (1) post and maintain adequate danger signs and other warnings against hazards.
- (2) promulgate safety regulations and give appropriate notices to the DCR and users of adjacent utilities and property.

- (3) ensure the adequate strength and safety of all scaffolding, staging and hoisting equipment, temporary shoring, bracing, and tying.
 - (4) protect adjoining private or public property.
 - (5) provide barricades, temporary fences, and covered walkways required by prudent construction practices, Laws and/or the Contract Documents.
 - (6) furnish approved hard hats and other personal protective equipment, furnish approved first aid supplies, furnish the name of the first aid attendant, and maintain a posted list of emergency facilities.
 - (7) provide proper means of access to property where the existing access is cut off by the Contractor, including maintaining traffic over, through or around the Work included in this contract, with the maximum safety, and practicable convenience to such traffic suspended temporarily.
 - (8) maintain from the beginning of any darkness or twilight through the whole of every night sufficient lights on or near any obstruction to guard or protect travelers from injury from such obstruction.
 - (9) maintain adequate security at the Site so as not to expose the Work, the materials to be incorporated in the Work, DCR's materials stored or otherwise located upon the Site, and surrounding property to vandalism or malicious mischief.
 - (10) provide adequate fire protection procedures during the use of cutting torches, welding equipment, plumbers' torches and other flame and spark producing apparatus.
 - (11) take prompt action to correct any dangerous or hazardous conditions.
- C. Use of Explosives:** The use of explosives will not be permitted in the Work unless specifically authorized in the technical Specifications, Special Conditions and/or Drawings or approved by the DCR in writing. If such approval is given, the Contractor shall comply with all Laws and obtain all permits, approvals, and certificates required in connection with the same and shall exercise best efforts, including but not limited to the employment and supervision of properly qualified personnel, to prevent damage, injuries, and accidents involving said explosives.
- D.** Written notice shall be given by the Contractor to all public service corporations or officials owning or having charge of public or private utilities of his/her intention to commence operations affecting such utilities at least seventy-two (72) hours exclusive of Saturdays, Sundays, and legal Holidays in advance of the start of such operations, and the Contractor shall at the same time file a copy of said notice with the DCR.
- E.** When necessary, the Contractor shall cooperate with representatives of public service companies to avoid damage to their structures by furnishing and erecting suitable supports, props, shoring or other means of protection. Fire hydrants adjacent to the work always shall be readily accessible to fire apparatus and no materials or other obstructions shall be placed within a radius of 10 feet of a fire hydrant.
- F.** Although the drawings may indicate the approximate location of existing subsurface utilities in the vicinity of the work, the accuracy and completeness of the information is not guaranteed by the DCR. Before commencing any work, or operations which may endanger or damage any subsurface structures, the Contractor shall carefully locate all such structures and conduct his/her operations in such manner as to avoid damage thereto. He/she shall not interrupt live services until new services have been provided. All abandoned services shall be plugged or otherwise made secure.
- G.** If the Contractor wishes to have any utilities temporarily relocated for his/her convenience, other than those specified by DCR, he/she shall submit such a request in writing to the Project Engineer. If the DCR approves this request, the Contractor shall pay for the cost of the relocation at his/her sole expense.
- H.** Land monuments and property markers shall be carefully protected. If is necessary to remove land monuments and/or property markers to perform the contract Work, the Contractor shall do so only at the DCR's direction and after an authorized agent of the DCR has referenced their location.
- I.** The Contractor shall not injure or remove trees or shrubs without authorization from the DCR.
- J.** Disturbance or damage to any above- or below-ground structures, conduits, cables, or the like, caused by any act of omission, neglect or misconduct in the execution or non-execution of work thereof by the Contractor shall be repaired, and/or replaced by the Contractor to the satisfaction of the DCR and at no additional expense to the DCR.
- K.** Disturbance or damage to any structure shall be replaced or repaired by the Contractor to the satisfaction of the DCR and at no additional expense to the DCR.
- L.** The Contractor shall receive no extra compensation for protection and restoration of property unless said compensation is authorized in writing by the DCR, as specified under Article VI I of the Contract General Conditions.
- M.** The Contractor shall not permit cutting or welding in or immediately adjacent to existing property of the Department of Conservation and Recreation or of anyone else without the DCR's prior approval in each instance.
- N.** The Contractor shall designate by notice to the DCR a responsible member of its organization at the Site whose duties shall include preventing accidents.

O. The Contractor shall submit to the DCR without delay verbal and written reports of all accidents involving bodily injury or property damage arising in connection with the Work.

P. In any emergency affecting the safety of persons or property the Contractor shall immediately act in the exercise of reasonable judgment to prevent threatened damage, injury, or loss. The Contractor shall immediately notify the DCR of such emergency.

16. Environmental Protection

A. The DCR shall secure the required environmental permits required under M.G.L. Chapters 131 and 91, including the National Pollutant Discharges Elimination System (NPDES) Construction General Permit and those issued by the Army Corps of Engineers under Section 404 of the Clean Water Act (33 U.S.C. 1344) and Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403). The Contractor is obligated to conform to all the requirements of the permits and subsequent requirements issued by the governing agencies.

B. Contractors operating under a DEP permit shall post on the Site a sign in a format consistent with that enclosed.

C. Prevention of Water Pollution:

1. The Contractor shall take such precautions in the conduct of the Work as may be necessary to avoid contaminating water in adjacent watercourses, water resources or wetlands. All earthwork, moving of equipment, water control for excavation or foundation areas, and other operations likely to create silting shall be conducted to avoid pollution of watercourses, water resources and wetlands.

2. Erosion Control: The Contractor shall utilize such methods as may be necessary to effectively prevent erosion and sediment from entering nearby waterways.

3. Control of Surface Water Runoff: The Contractor shall keep the rate of runoff from the Site at a minimum, and control it by constructing diversion ditches, trenches, and berms, and taking any other necessary action to retard and divert runoff to protect watercourses. The Contractor shall inspect said Site controls regularly, after significant storm events (greater than one-half inch over a 24-hour period) and in accordance with a site-specific storm water pollution prevention plan (SWPPP) prepared by the Contractor. The Contractor shall repair any damage to Site controls to prevent discharge of sediments or pollutants.

4. The Contractor shall construct silt retention basins in areas of the Work adjacent to streams, or rivers, as directed by the DCR. These basins shall be removed upon completion of the Work. Water used during the Work which has become contaminated with oil, bitumen, harmful or objectionable chemicals, sewage or other pollutants shall be discharged in accordance with all Laws to avoid affecting nearby waters.

5. Under no circumstances shall the Contractor discharge pollutants into any watercourse, water resource, or wetland. When water from adjacent natural sources is used in the contract work, intake methods shall be such as to avoid contaminating the source of supply.

D. Protection of Land Resources

1. Prevention of Landscape Defacement: The Contractor shall not deface, injure, remove, cut, or destroy trees or shrubs, without authority from the DCR. No ropes, cables, or guys shall be fastened to or attached to any existing nearby trees for anchorages unless specifically approved by the DCR. Where such activity is permitted, the Contractor shall adequately wrap the tree with burlap or rags over which softwood slats shall be tied. The Contractor shall be responsible for any damage resulting from such use. Where trees may possibly be defaced, bruised, injured, or otherwise damaged by equipment, dumping, or other operations, the Contractor shall protect such trees by placing boards, planks or approved protective fencing around them.

2. Restoration of Landscape Damage: Any trees or other landscape feature scarred or damaged by equipment or operations shall be restored as nearly as possible to the original condition, as approved by DCR. All trimming or pruning shall be performed in an approved manner by licensed arborists with saws or pruning shears. Trimming with axes will not be permitted.

3. Plant Pest Control: If the Work under this contract requires the use of soil moving equipment in an area with plant infestation, the Contractor shall be subject to applicable plant quarantine regulations. In general, these regulations require the thorough cleaning of soil from equipment before such equipment is moved from regulated areas to area's noninfected

E. Noise Control: The Contractor shall use every effort and every means possible to minimize noise caused by his/her operations which the DCR may consider objectionable. Each Contractor shall provide working machinery and equipment designed to operate with the least possible noise, and when gearing is used, such gearing shall be of a

type designed to reduce noise to a minimum. Compressors shall be equipped with silencers on intake lines. All gas or oil operated equipment shall be equipped with silencers or mufflers on intake and exhaust lines. Electricity shall be used for power to reduce noise. Dumping bins, hoppers and trucks used for disposal of excavated materials shall be lined with wood or other sound-deadening material if required. Where required by agencies having jurisdiction, certain noise-producing work may have to be performed during specified periods only.

E. Air Pollution Control: The Contractor shall conduct his/her operations to comply with all Laws pertaining to air pollution, including Section 142B of Chapter 111 of the Massachusetts General Laws.

1. Diesel Equipment Emission Controls

a.) All motor vehicles and construction equipment shall comply with all pertinent local, state, and federal regulations covering exhaust emission controls and safety.

b.) All Contractor and Sub-Contractor diesel-powered non-road construction equipment with engine horsepower (HP) ratings of 50 and above, which are used on the Project Site for a period more than 30 calendar days over the course of the construction period on the Project Site, shall be retrofitted with Emission Control Devices to reduce diesel emissions.

c.) The reduction of emissions of volatile organic compounds (VOCs); carbon monoxide (CO) and particulate matter (PM) from diesel-powered equipment shall be accomplished by installing Retrofit Emission Control Devices.

d.) Acceptable Retrofit Emission Control Devices for the Project shall consist of oxidation catalysts that are (1) included on the US Environmental Protection Agency (EPA) *Verified Retrofit Technology List* and/or the California Air Resources Board (CARB) *Currently Verified Technologies List*; and (2) are verified by EPA, CARB, or certified by the manufacturer to provide a minimum emissions reduction of 50 percent for VOCs, 40 percent for CO and 20 percent for PM. Attainment of the required reduction in PM emissions can also be accomplished by using less polluting Clean Fuels. Verified technologies can be identified on the following websites:

EPA: <http://www.epa.gov/otaq/retrofit/retroverifiedlist.htm>

CARB: <http://www.arb.ca.gov/diesel/verdev/verifiedtechnologies/cvt.htm>

e.) The emission control equipment can be procured through the Statewide Contract #VEH71 that has fixed costs associated with retrofitting of diesel emission control devices.

f.) Construction shall not proceed until the Contractor has submitted a certified list of the non-road diesel-powered construction equipment subject to this provision which either are or will be retrofitted with emission control devices. The list shall include (1) the equipment number, type, make, and Contractor/Sub-Contractor name; and the emission control device make, model, and EPA verification number. Contractors shall also submit a receipt or other documentation from a manufacturer or installer that verifies that appropriate equipment has been installed. The Contractor shall also identify any vehicles that will use Clean Fuels. Equipment that has been retrofitted with an emission control device shall be stenciled or otherwise clearly marked as "Low Emission Equipment".

g.) The Contractor shall submit monthly reports, updating the same information stated in Paragraph f above, including the quantity of Clean Fuel utilized. The addition or deletion of non-road diesel equipment shall be indicated in the report.

h.) The Contractor shall use methods to control nuisance odors associated with diesel emissions from construction equipment including but not limited to the following: (1) turning off diesel combustion engines on construction equipment not in active use and on trucks that are idling for five minutes or more; and (2) locating diesel equipment away from the public and sensitive receptors.

i.) All costs associated with implementation of the diesel equipment emissions control shall be borne by the

respective Contractor or subcontractor and included in their cost for performing the work of the Contract.

2. Dust Control.

A. The Contractor is placed on notice that blowing dust from un-stabilized earth areas of the work under his/her control will be considered a nuisance. He/she shall, by spraying with water or by other approved means, dampen the soil to hold down the dust. The use of calcium chloride as a wetting agent will not be permitted. During working hours and before leaving the work for the evening, for weekends, or for a more extended period, the Contractor shall assess the moisture content of the soil and dampen it to the extent necessary to hold down the dust. While work is suspended, he/she shall return to work, if so, directed by the DCR, to maintain the dust control.

17. Debris, Excavated Material and Chemical Waste.

A. The Contractor shall not permit the accumulation of interior or exterior debris. The Contractor shall always keep the Work area clean. Without limitation, garbage shall be removed daily. Where no disposal area is shown on the Drawings, the Contractor shall remove and legally dispose of all materials off land owned by the Commonwealth to a location approved by the DCR. Documentation certifying proper disposal shall be submitted to the DCR.

B. The Contractor shall, at his/her own expense, and in accordance with all Laws, arrange for the waste of materials from excavations that are unacceptable for use in the refill or that are more than the refill materials required, in spoil banks off the lands owned by the Commonwealth of Massachusetts. Materials, if any, which cannot be placed at once in permanent positions may be deposited in storage piles at locations designated, but materials re-excavated from such storage piles shall not again be paid for as excavation.

C. The Contractor shall properly classify and remove debris and waste from the Site and transport and dispose of it, all in accordance with Laws, employing a qualified and properly licensed transporter, at any landfill, disposal or recycling facility licensed under applicable Laws, including without limitation, hazardous materials laws. The Contractor shall make all arrangements and give and obtain all notices, communications, documentation, permits, certificates, and approvals necessary for said disposal from the owner or officials in charge of such landfills, disposal, or recycling facilities. The Contractor shall bear all fees and costs in connection with such classification, removal, transportation, disposal, and storage, except as otherwise specifically provided or required by the Special Conditions or other Contract Document. The Contractor shall not permit any storage of debris or waste except in accordance with Laws.

D. The Contractor shall not permit any open fire on the Site.

E. Chemical Waste: Chemical waste shall be identified and labeled properly, stored in appropriate Department of Transportation approved containers in a secure location, removed from the Site, and disposed of not less frequently than monthly unless more frequently required by Laws, including without limitation hazardous materials laws, or by the Special Conditions or Specifications. Disposal of chemical waste shall be performed in accordance with requirements of the U.S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (DEP). Stockpiles of contaminated soils will be placed on a protective surface and covered to prevent migration or erosive loss by wind or water. Fueling and lubricating of vehicles and equipment shall be conducted in a manner that affords the maximum protection against spills and evaporation. Lubricants shall be disposed of in accordance with procedures meeting all applicable Laws. The Contractor shall immediately notify the DCR of any hazardous materials release large enough to require reporting under applicable Laws. The Contractor shall be responsible for immediately containing and cleaning up in accordance with Laws any oil or hazardous materials releases resulting from his/her operations. Any costs incurred in cleaning up any such releases shall be borne by the Contractor.

18. Nuisances.

The Contractor shall strictly prohibit and take all necessary measures to prevent the committing of nuisances on the land of the Commonwealth and adjacent properties.

19. Weather Protection (M.G.L. c. 149, sec. 44G and 44F(1)).

A. For all building projects, the Contractor shall furnish and install "weather protection," which means temporary protection of that Work adversely affected by moisture, wind and cold. Weather protection shall be achieved by covering, enclosing and/or heating working areas such that a minimum temperature of 40 degrees Fahrenheit is maintained at the working surface during the months of November through March to permit construction to be carried on during such period in accordance with the Progress Schedule. After the building or portion thereof is completely enclosed by either permanent

construction or substantial temporary materials having a resistance comparable to the specified permanent construction, the Contractor shall provide heat therein of not less than 55 degrees Fahrenheit nor more than 75 degrees Fahrenheit. The foregoing provisions do not supersede any specific requirements for methods of construction, curing of materials and the like. Concrete, masonry, plaster, and all other materials that require special considerations in temperatures below 40 degrees Fahrenheit shall be installed, applied, and cured in accordance with the specific requirements for cold weather protection as defined in the project specifications.

B. The general contractor may, with the approval of the Engineer, elect to utilize the permanent heating system for temporary heat after the building is enclosed and after it has been tested and ready to operate. It shall, however, be his responsibility to thoroughly clean and restore to first-class condition any portion of the permanent heating system used for heating during construction to the satisfaction of the Engineer.

C. The Contractor shall furnish and install one thermometer for every 2,000 square feet of floor space or fraction thereof.

D. Installation of weather protection and heating devices shall comply with all safety regulations including provisions for adequate fire protection devices. Approved methods of heating should also provide for adequate ventilation to prevent exposing people and materials to carbon monoxide, carbon dioxide and other noxious fumes.

E. Within 30 calendar days after the award of this contract, the general contractor shall submit in writing to the Engineer three (3) copies of his proposed methods for "Weather Protection" for approval.

F. The Contractor shall give adequate notification to the Engineer and all subcontractors prior to the erection and removal of temporary protective enclosures.

G. Such weather protection shall be consistent with the Progress Schedule, shall permit the continuous progress of the Work necessary to maintain an orderly and efficient sequence of construction operations and shall meet such additional requirements as may be specified by the Special Conditions or Specifications.

20. Furnishings and Equipment.

When, in the opinion of the DCR, any portion of the Work is in a reasonable condition to receive fittings, furniture, or other property of the Department of Conservation and Recreation not covered by this Contract, the Contractor shall allow the DCR to bring such fittings, furniture, and/or other property into such portions of the Work and shall provide all reasonable facilities and protection thereof. No such occupancy shall be construed as interfering with the provisions relating to time of completion, or as constituting an acceptance of the whole or any part of the Work. Any furniture or fittings so installed shall be placed in the Work at the risk of the DCR except that the Contractor shall be liable for damages or losses to such furniture or fittings to the extent such damages or losses arise in whole or in part from the negligence or intentional misconduct of Contractor, Subcontractors, their agents and/or employees, or anyone for whose acts the Contractor is responsible.

21. Form for Sub-contract.

The Contractor when subcontracting with sub-bidders filed pursuant to M.G.L. c. 149, sec. 44F shall use the form for sub-Contract in M.G.L. c. 149, sec. 44F(4)(c). The Contractor shall not interpret paragraph 3 of the statutory form of Subcontract to require such sub-bidders to provide insurance with limits higher than the limits that are required by the Contract Documents, if the term "Contractor" refers to the sub-bidder and that the term "Contract Price" refers to the sub-bidder's price stated in paragraph 1 of the statutory form of Subcontract.

22. Sales Tax Exemption and Other Taxes.

All building materials and supplies as well as the rental charges for construction vehicles, equipment and machinery rented exclusively for use on the Site, or while being used exclusively for the transportation of materials for the Work are entitled to an exemption from sales taxes under M.G.L. c. 64H, sec. 6(f). The Contractor shall take all action required to obtain the benefit of such sales tax exemption. The Contractor shall bear the cost of any sales taxes that the Contractor incurs in connection with the Work and the DCR shall not reimburse the Contractor for any such taxes. The exemption number assigned to the Contractor as an exempt purchaser shall be provided to the Contractor by the DCR upon the written request of the Contractor.

23. Final Cleaning.

At the completion of the Work, the Contractor shall remove all waste materials, rubbish, tools, equipment, machinery,

and surplus materials, and professionally clean all sight-exposed surfaces so that the Work is clean and ready for occupancy and/or use. After installation of DCR furniture, telephones, and equipment, the Contractor shall provide such additional cleaning as may be necessary to remove any soil resulting from installation of such furniture, telephones, and equipment. The costs of the required cleaning are included in the Contract price.

All permanent drainage structures such as catch basins, permanent detention or retention basins, drainage conveyances, piping, sumps, and particle separators will be cleaned of sediments and debris prior to acceptance of the Work. Any sediments or debris accumulated during construction shall be removed and disposed in accordance with local and state requirements.

24. Maintenance Data.

Subject to such additional requirements as may be provided in the Special Conditions or Specifications, the Contractor shall compile 3 complete and identical binders of operating and maintenance data for the entire Work. The Contractor shall submit record maintenance data to the DCR for approval and shall instruct and train the DCR's personnel in proper inspection and maintenance procedures.

25. Drainage Specifications.

Subject to such additional requirements as may be provided in the Special Conditions or Specifications, where construction involves replacement or construction of new storm water drainage systems including but not limited to catch basins, roof drains, recharge to groundwater systems and outfall structures, the Contractor shall provide drawings and electronic records in a form acceptable to the DCR that provides specifications and a site plan that identifies locations of the drainage system components and cleanout, if applicable.

26. Closeout Procedures.

The Contractor shall take all actions and submit all items required for Final Acceptance as specified in the Contract Documents.

27. Risk of Loss.

The Contractor shall bear all risk of loss to the Work during the term of the Contract except for any portion of the Work as to which the DCR has given final acceptance. Nothing herein shall limit the Contractor's responsibilities under Article IX or XV of these General Conditions of the Contract.

28. Photographs.

A. At the request of the DCR, the Contractor shall furnish the DCR suitable 4" X 6" color photographs and/or digital image files of the construction area, and any related work areas.

B. If the DCR requires the Contractor to provide photographs of the Work, the areas to be photographed and the locational reference point from which they are to be taken will be designated by the DCR, and shall be taken according to the following schedule:

- a. Before construction operations have been started.
- b. Each month during the performance of the Work.
- c. After construction has been completed.

C. Each photograph shall have permanently written on its face a legible description or title indicating date, location, direction from which taken, project title and item of work photographed.

D. Upon completion of all work under this contract, the Contractor shall deliver all negatives, clearly identified, to the DCR. Photographs will be placed in acetate sleeves and bound in three booklet form.

E. The cost of furnishing photographs shall be included in the prices bid for the various items scheduled in the Proposal.

ARTICLE V: MATERIALS AND EQUIPMENT

1. Materials Generally.

A. Unless otherwise specifically provided in the Contract Documents, the Contractor shall provide and pay for materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for proper execution and completion of the Work, whether temporary or permanent and whether incorporated or to be incorporated in the Work.

B. Materials and equipment to be installed as part of the Work (both or either of which are hereinafter referred to

as "materials") shall be new, unused, of recent manufacture, assembled, and used in accordance with the best construction practices. The Contractor shall inform himself/herself as to, and shall comply with, the provisions of M.G.L. c. 7, sec. 23A, as amended, and shall abide by the same and all applicable rules, regulations, and orders made thereunder in relation to the purchase of supplies and materials in the execution of the Work, including the provisions of M.G.L. c. 7, sec. 22, paragraph 17, which provides that there be *"a preference in the purchase of supplies and materials, other considerations being equal, in favor, first, of supplies and materials manufactured and sold within the Commonwealth, and, second, of supplies and materials manufactured and sold elsewhere within the United States."*

C. All materials furnished by the DCR to the Contractor for installation in the work will be delivered by freight train, truck, or other means of common carrier to the nearest convenient public railroad siding, freight station, trucking terminal or such other designated delivery point of which he will receive due notification. The Contractor, at his/her own expense, shall do all handling and conveying of such materials at and from the noted deliver site. He shall unload and remove them promptly from the cars, trucks, or terminals upon notification of their arrival and he shall be responsible for any demurrage, delay charges, damage done or loss of materials from the time of delivery to the final acceptance of the work. Materials previously delivered shall be turned over to the Contractor as soon as possible after the date ordered to begin work. He shall make a complete inventory with the Resident Engineer as to content and condition; thereafter he shall be responsible for the care, custody, and handling until the final acceptance of the work.

2. Shop Drawings, Product Data, and Samples.

A. The Contractor shall furnish to the Project Engineer all samples of the materials to be used in the execution of the Work as required by the Contract Documents. The Contractor shall furnish to the DCR in a timely manner all coordination Drawings, shop details, Shop Drawings, and setting diagrams which may be necessary for acquiring and installing materials. These shall be reviewed as required by the DCR. A minimum of six (6) copies shall be submitted for final approval, one of which shall be returned to the Contractor, one given to the Resident Engineer, and four maintained by the DCR. The inspection and approval by the DCR of Shop Drawings, etc. shall be general and shall in no way relieve the Contractor from responsibility for proper fitting, coordinating, construction, and construction sequencing. The Contractor shall furnish to the DCR such information and vouchers relative to the Work, the materials therefore, and the persons employed thereon, as the DCR shall from time-to-time request.

B. Shop Drawings, Product Data, Samples, and similar submittals are not Contract Documents. The purpose of their submission is to demonstrate for those portions of the Work for which submittals are required the way the Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents.

C. The Contractor shall review, approve, and submit to the DCR, Shop Drawings, Product Data, Samples, and similar submittals required by the Contract Documents with reasonable promptness and in such sequence as to cause no delay in the Work or in the activities of the DCR or of separate contractors. Submittals made by the Contractor which are not required by the Contract Documents, or which do not comply with the Contract Documents may be returned without action. The Contractor's attention is directed to the provisions of Section 4 of this Article V and to the Specifications.

D. The Contractor shall prepare and keep current for the DCR's approval a schedule of submittals which is coordinated with the Progress Schedule and allows the DCR reasonable time to review submittals.

E. The Contractor shall perform no portion of the Work requiring submittal and review of Shop Drawings, Product Data, Samples, or similar submittals until the respective submittal has been approved by the DCR. Such Work shall be in accordance with Approved submittals.

F. By submitting Shop Drawings, Product Data, Samples and similar submittals, the Contractor represents that the Contractor has determined and verified materials, field measurements, and field construction criteria related thereto and has checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents.

G. The Contractor shall not be relieved of responsibility for deviations from requirements of the Contract Documents by the DCR's approval of Shop Drawings, Product Data, Samples, or similar submittals unless the Contractor has specifically informed the DCR in writing of such deviation at the time of submittal and the DCR has given explicit written

approval to the specific deviation. The Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples, or similar submittals by the DCR's actions.

H. The Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, Product Data, Samples or similar submittals, to revisions other than those requested by the DCR on previous submittals.

I. Informational submittals upon which the DCR is not expected to take responsive action may be so identified in the Contract Documents.

J. When professional certification of performance criteria of materials, systems or equipment is required by the Contract Documents, such certification must be stamped by a registered Massachusetts professional in the discipline required. The DCR shall be entitled to rely upon the accuracy and completeness of such calculations and certifications.

K. Materials furnished or used or employed under the Contract must be equal in quality to the samples furnished and be satisfactory to the DCR.

3. Tests.

A. Any material to be used in the Work may be tested or inspected at any time, on or off Site, by or under direction of the DCR, and may be rejected if it fails to comply with specified tests. The Contractor shall test all materials unless specified otherwise in the Special Conditions or Specifications. The Contractor shall also pay for all testing of specified material unless specified otherwise in the Special Conditions or Specifications. If the Contractor requests permission to use a material that was not specified, then the Contractor in all cases shall pay for such testing. The cost of testing of materials that fail the testing criteria shall be borne by the Contractor

B. The Contractor shall notify the DCR of the proposed sources of materials in time to permit all required testing and inspection before the material is needed for incorporation into the Work. The Contractor shall have no claim arising from the Contractor's failure to designate the proposed source or to order the material in time for adequate testing and inspection. Necessary arrangements shall be made to permit the DCR to make factory, shop or other inspection of materials or equipment ordered for the Work in the process of manufacture or fabrication, as required by the Contract Documents. The DCR will not assume any obligation for the sampling and testing of materials other than on the Site, unless so required by the Specifications.

C. Where tests of materials will be made by the DCR or under its direction, the Contractor or his/her suppliers shall furnish such facilities as the DCR may require for collecting and forwarding samples and shall not make use of, nor incorporate into the Work, any material represented by the samples until the required tests have been made and the material accepted, unless otherwise directed. The Contractor in all cases shall furnish the required samples without charge. In the event of failure of materials to meet the Contract Documents, any retesting of new materials or of the same materials after reworking, shall be paid for by the Contractor.

D. The testing of the Work shall not relieve the Contractor of any of his/her obligations to fulfill the terms of the Contract as herein prescribed by the Contract Documents. Failure to reject any defective work or materials shall in no way prevent later rejection when such defect is discovered, notwithstanding that such defective work or materials had been previously overlooked or misjudged by the DCR and accepted or estimated for payment, nor shall such obligate the DCR to make final acceptance thereof. If sampling and testing reveal that the material is unsatisfactory, it will then be the responsibility of the Contractor to remove it from the Work, replace it, or blend it with such other material so that an acceptable material will be produced. The removal, replacement and blending of such material shall be done by the Contractor without additional compensation.

4. "Or Equal" Submissions.

A. Where products or materials are prescribed by manufacturer name, trade name, or catalog reference, the words "or Approved equal" shall be understood to follow. An item shall be considered equal to the item so named or described if in the opinion of the DCR (a) it is at least equal in quality, durability, appearance, strength, and design, (b) it performs at least equally the function imposed in the general design for the Work, and (c) it conforms substantially, even with deviations, to the detailed requirements for the items as indicated by the Specifications. Any structural or mechanical changes made necessary to accommodate products or materials substituted as an "or equal" shall be at the expense of the Contractor. If the cost of the material substituted as an "or equal" is less than the cost of the material specified, such savings in cost shall be credited to the DCR and deducted from the price. "Approved equal" shall mean an item with respect to which the DCR shall have issued a written statement to the Contractor to the effect that the item is, in the DCR's opinion, equal within the meaning of this paragraph to that prescribed in the Contract Documents.

B. The Contractor shall be responsible for providing the DCR with any information and test results that the DCR reasonably requires to determine whether a material is equal to a material named or described in the Contract Documents.

C. The Contractor shall make all requests for substitution of a material named or described in the Contract Documents in writing, and at least thirty (30) days prior to the date the materials will be used in the Work, or immediately upon becoming aware of the following exigencies: (1) the non-availability of the specified material, (2) delay of the delivery of the specified material that will preclude the completion of the Work or any part thereof within the time specified in the Contract or (3) unforeseen field conditions that necessitate the substitution of the specified material. In no event shall the Contractor maintain a claim for delays based upon the DCR's review of such substituted materials if the Contractor failed to submit a written request for such substitution in accordance with the provisions of this paragraph. A written request for a material substitution due to an exigency set forth above shall be accompanied with documentation of the exigency, including but not limited to, a photocopy of a letter from the supplier or manufacturer stating that he/she is unable to furnish the specified materials and the reasons that he/she is unable to furnish the materials, as required by the DCR. If the Contractor's proposed substitution due to an exigency is declined, the DCR shall, at its discretion, specify an "or equal" substitution.

D. The Contractor shall have the burden of proof with respect to any claimed increases in the Contract Price resulting from the improper rejection by the DCR of any material proposed by the Contractor as an equal. No increase in the Contract Price shall be permitted unless the Contractor submits documentary evidence sufficient to prove to the reasonable satisfaction of the DCR that the rejection increased the Contractor's costs over the costs provided for in the Bid pricing documents, net of all savings the Contractor obtained by substituting other "or equal" items. The Contractor shall submit copies of all pricing materials, calculations, plans, Specifications, Drawings, and other design documents that the DCR deems necessary or desirable to evidence such increased costs. In calculating the Contractor's increased costs, a deduction shall be made for all costs that the Contractor would have incurred making structural or mechanical changes to include within the Work the item later found to have been improperly rejected.

5. Delivery and Storage of Materials: Inspection.

A. Materials and equipment shall be progressively delivered to the Site so that there will be neither delay in the progress of the Work nor an undue accumulation of materials that are not to be used within a reasonable time, and stored so that their security, quality, and fitness of the materials for the Work is preserved.

B. Vehicle Weight Limits

1. The Contractor's attention is directed to Chapter 90, Section 19A of the General Laws as amended concerning the weight limits for construction type motor vehicles.
2. No materials supplied for the project shall be accepted in vehicles whose gross weight exceed the legal load limits as determined by the regulatory agencies of the Commonwealth and Federal Government
3. Weight slips that indicate the load exceeding the legal load limit will not be countersigned by the DCR.

C. If the Engineer so requests, the Contractor, at any time before final acceptance of the work, shall remove or uncover such portions of the finished work as may be directed. After examination, the Contractor shall restore said portions of the work to the standard required by the specifications. Should the work thus exposed or examined prove acceptable, the uncovering, or removing, and the replacing of the covering or making good of the parts removed will be paid for as extra work; but should the work so exposed or examined prove unacceptable, the uncovering or removing and the replacing of the covering or making good of the parts removed, will be at the Contractor's expense.

D. Necessary arrangements shall be made to permit the DCR to perform all required inspection and testing of materials or equipment ordered for the Work at the factory or shop during the process of manufacture or fabrication, or in storage on or off Site. The Contractor shall have no claims because of his/her failure to designate the proposed source of the material in time for adequate testing and inspection.

E. Materials stored off Site shall be insured and stored at the expense of the Contractor to guarantee the preservation of their security, quality, and fitness for the Work. Without derogating from the Contractor's responsibilities in the previous sentence, when necessary to avoid deterioration or damage, material (on or off Site) shall be placed on wooden platforms or other hard clean surfaces and not on the ground and shall be properly protected.

F. Expenses for inspection of material by DCR personnel including travel, quarters, and subsistence shall be borne by the Contractor requesting the inspection of material stored outside the Commonwealth of Massachusetts as part of the Contract Price. The policy of the DCR precludes the payment for material stored outside the boundaries of Massachusetts except in extremely limited circumstances with the express written consent of the DCR. If the Contractor requests an inspection of material stored outside the Commonwealth of Massachusetts, the DCR will initially pay for all expenses of inspecting the material incurred by DCR's personnel including travel, quarters, and subsistence. The DCR will then give Contractor an invoice for those costs and the Contractor shall submit a credit Change Order for those expenses.

G. Stored materials either at the Site or at some other location agreed upon in writing shall be so located as to facilitate prompt inspection and even though approved before storage, may again be inspected prior to their use in the Work.

H. Where no inspection of materials is arranged by the DCR and before such materials are incorporated into the work, the Contractor shall be required to submit to the DCR for approval, three copies of the Manufacturer's or Supplier's statement for each kind of material furnished, which shall contain the following information:

1. Work for which the material is consigned.
2. Name of the Contractor to which the material is supplied.
3. Description of material supplied.
4. Quantity of material supplied.
5. Means of identifying the consignment, such as label, marking, seal number, etc.
6. Date and method of shipment.
7. Statement to the effect that the material has been tested and found in conformance with the Contract Documents.
8. Results of all required tests, or in lieu of said results, the Manufacturer's, or Supplier's guarantee that he/she shall maintain said results, and make them available to the DCR for a period of not less than three years from the date of final acceptance of final payment by the Commonwealth.
9. Signature of a person duly authorized to bind the Manufacturer or Supplier.

I. All storage sites shall be restored to their original condition by the Contractor at the Contractor's expense. This shall not apply to the stripping and storing of topsoil, or to other materials salvaged from the work.

J. The Contractor shall take charge of and be liable for any loss of or injury to the materials for his/her use delivered to or in the vicinity of the place where the Work is being done, whether furnished by the DCR or otherwise. The Contractor shall notify the DCR as soon as any such materials are so delivered, allow them to be examined by the DCR, and furnish workers to assist therewith.

K. Private property shall not be used for storage purpose without the written permission of the property owner, and if requested by the DCR copies of such written permission shall be furnished by the Contractor.

6. Defective, Damaged, or Deteriorated Materials and Rejection Thereof.

The DCR may reject materials if the DCR reasonably determines that such materials do not conform to the Contract Documents in any manner, including but not limited to materials that have become damaged or deteriorated from improper storage whether such materials have previously been accepted. The Contractor at its own expense shall remove rejected materials from the Work. No rejected material, the defects of which have been subsequently corrected, shall be used except with the written permission of the DCR. Should the Contractor fail to remove rejected material within a reasonable time, the DCR may, in addition to any other available remedies, remove and/or replace the rejected material, and deduct the cost of such removal and/or replacement from any moneys due or to become due the Contractor. No extra time shall be allowed for completion of Work by reason of such rejection. The inspection of the Work shall not relieve the Contractor of any of its obligations herein prescribed, and any defective Work shall be corrected. Work not conforming to the Contract Documents may be rejected notwithstanding that such Work and materials have been previously overlooked or misjudged by the DCR and accepted for payment. If the Work or any part thereof shall be found defective at any time before Final Acceptance of the whole Work, the Contractor shall forthwith make good such defect in a manner satisfactory to the DCR. Nothing in the Contract shall be construed as vesting in the Contractor any property rights in the materials used after they have been attached or affixed to the Work or the Site; but all such materials shall upon being so attached or affixed become a property of the DCR.

7. Measurement

A. The method of measurement for materials necessary for the proper execution of the Work is set forth at the end of each Section of these Specifications. The computations to be used in determination of quantities of material furnished and of work performed under the Contract shall be selected by the DCR.

B. For the estimating of quantities in which the computations or areas by analytic and geometric methods would be comparatively laborious, it is stipulated and agreed that the planimeter shall be considered an instrument of precision adapted to the measurement of such area.

C. To aid the Resident Engineer in determining the quantities and weights of cement and other materials to be paid for, the Contractor shall, whenever so required, give him access to the proper invoices, bills of lading, etc., and shall provide scales and assistance for weighing, or assistance for measuring, any of the materials.

D. All measurements shall be confirmed by the DCR as they are made to determine the quantities of the various items of work performed. All measurements shall be made according to the United States Standard Units of Measurement.

E. Unless otherwise specified, longitudinal measurements for area computations will be made horizontally. Unless otherwise specified transverse measures for area computations will be the dimensions shown on the Drawings or in writing by the DCR.

F. All items which are measured by the linear foot, including, but not limited to pipe, culverts, guardrail, curbing, will be measured parallel to the base or foundation upon which such structures are placed, unless otherwise shown on the Drawings.

G. In computing volumes of excavation, the average end area method, or other methods acceptable to the DCR will be used.

H. A sworn weigher shall weigh all materials required to be weighed. The weighing of such materials may be witnessed by the DCR.

I. If materials are shipped by rail or trucks, the car weights or quarry weights may be accepted. Weight slips shall be provided for each shipment of material weighed. Each weight slip shall be signed by the sworn weigher, and countersigned, on delivery, by the DCR. Material listed on weight slips that are not countersigned by the DCR shall not be included for payment under the Contract.

J. When requested by the Contractor and approved by the DCR in writing, material specified to be measured in weight may be weighed and converted to volume measurement for payment purposes.

ARTICLE VI: PROSECUTION AND PROGRESS

1. Beginning, Progress Schedule, and Completion of Work.

A. The Contract time shall commence the work upon the date specified in the Notice to Proceed. The Contractor shall begin Work at the Site within ten (10) days of said date unless otherwise ordered in writing by the DCR.

B. Within seven (7) days after the issuance of the Notice to Proceed, Saturdays, Sundays and legal holidays excluded, the Contractor shall submit to the DCR a progress schedule for the term of the Contract as required by the Contract Documents, showing in detail his/her proposed progress for the construction of the various parts of the Work and the proposed times for receiving required materials. Upon approval by the DCR, said schedule shall constitute the Progress Schedule. The Contractor shall at the end of each month, or more often if required, furnish to the DCR a schedule meeting the requirements of the Specifications showing the actual progress of the parts of the Work in comparison with the Progress Schedule.

C. Time is of the essence of this Contract. The Work shall be completed within the time specified in Article 2 of the Department of Conservation and Recreation - Contractor Agreement. Should the Contractor require additional time to complete the Work, the Contractor shall document the reasons therefor and submit a written request for an extension of time within 20 days of the occurrence of the event alleged to be the cause of the delay, as provided in this Article and in Article VII of these General Conditions of the Contract. Failure to submit said written request within the time required by the preceding sentence shall preclude the Contractor from subsequently claiming any time extension due to said delay.

D. If, in the opinion of the DCR, the Contractor fails to comply with the construction schedule as set forth in the Contractor's bid or the Project specifications, the DCR may give the Contractor a notice specifying the time limits and performance standards that the Contractor is failing to meet whereupon (1) the Contractor shall, if the notice requires, discontinue all or any portion of the Work (which discontinuance shall neither terminate the Contract nor give the Contractor any claim for an increase in the Contract Price, damages, or an extension of any completion deadlines); or (2) at Contractor's sole cost increase the work force, equipment and plant, or any of them, employed on the whole or any part of the Work, to the extent required by such notice, and employ the same from day to day until the completion of the Work or such part thereof, or until the failure regarding the rate of progress, in the opinion of the DCR, shall have been sufficiently corrected.

E. If, in the opinion of the DCR, the Contractor fails to comply with the construction schedule, and whether the DCR shall have given the Contractor a notice described in D above, the DCR may (but shall not be required to) give the Contractor notice of such failure and five (5) days to cure the same. Unless the Contractor shall within that five days take all necessary steps to do so (including, if the DCR requires, increasing its forces, equipment and plant) and continue to do so until in the opinion of the DCR the failure is corrected, the DCR may at the Contractor's expense and without terminating this Contract take exclusive or joint possession of all or a portion of the Site and employ and direct the labors of existing or such additional forces, equipment and plant as may in the DCR's opinion be necessary to insure the completion of the Work or such part thereof within the time specified in the Contract Documents or at the earliest possible date thereafter. The DCR may exercise its rights under this Article at any time and from time to time without waiving any of its rights under this Contract, at law or in equity, including, without limitation, the right to deem this Contract terminated or to order the Contractor to discontinue the Work at any time thereafter. The Contractor shall continue to perform the remaining Work under this Contract even if the DCR elects to have another contractor perform a portion of the Work under this Article.

F. The DCR shall deduct the cost of any actions the DCR takes under this Article from any amount then due or which might have become due to the Contractor under this Contract had the Contractor performed as required. On demand, the Contractor shall pay the DCR any amount by which the cost of completing all or any portion of the Work exceeds the amount attributable to that Work under the Contract Documents. The DCR's sole goal will be to complete the Work that it elects to complete within the time limits stated in the Contract or soon thereafter. Consequently, the DCR shall have no obligation to obtain competitive bids or the lowest cost for completing the Work or any part thereof, except when it is required by law. The DCR's election to complete all or part of the Work shall not release the Contractor from any liability for failure to complete the Work as the Contract Documents require and shall not entitle the Contractor to a claim for an increase in the Contract Price or an extension of the time for completing the Work. If the cost that the DCR incurs in completing all or any portion of the Work is less than the amount that the Contract Documents attribute to that Work, the DCR will pay or credit the difference to the Contractor, less any other costs and expenses that the DCR incurs, including the cost of supervision, and attorneys' fees and costs.

2. Failure to Complete Work on Time - Liquidated Damages.

A. If liquidated damages are specified in the Department of Conservation and Recreation - Contractor Agreement, the DCR has determined that its damages because of Contractor's failure to complete the Work fully within the time specified will be difficult or impracticable to ascertain. Accordingly, if the Work is not completed to such point by the date specified in this Contract, the Contractor shall pay to the DCR the sum designated as liquidated damages in the Contract for each calendar day that the Contractor is in default in completing the Work to such point. Such moneys shall be paid as liquidated damages, not as a penalty, to cover losses and expenses to the DCR resulting solely from the fact that the Work is not completed on time.

B. Similarly, if the Contract states that by a specified date a designated portion of the Work shall be fully completed, and if such portion has not been prosecuted to such point by said date, the Contractor shall pay to the DCR the sum designated in the Contract for each calendar day that the Contractor is in default in completing such portion of the Work to such point. Such moneys shall also be paid as liquidated damages, not as a penalty, to cover losses and expenses to the Department of Conservation and Recreation resulting solely from the fact that the Work is not completed on time.

C. The DCR may recover such liquidated damages by deducting the amount thereof from any moneys due or that might become due the Contractor, and if such moneys shall be insufficient to cover the liquidated damages, then the Contractor or the Surety shall pay to the DCR the amount due.

D. Permitting the Contractor to continue and finish the Work or any portion of it after the time fixed in the Contract for its completion shall not be deemed as a waiver of any of the DCR's rights hereunder, at law or in

equity.

E. Liquidated damages or a portion thereof may be waived by the DCR if the Contractor submits evidence satisfactory to the DCR that the delay was caused solely by conditions beyond the control of the Contractor and that the DCR has not suffered any damages because of said delay.

F. Failure by the DCR to specify a sum as liquidated damages in the Department of Conservation and Recreation - Contractor Agreement, or the insertion of "N/A" or "none" in the space provided therein for liquidated damages, shall not be deemed a waiver of the DCR's right to recover actual damages arising from the Contractor's failure to complete the Work on time.

3. Delays: Statutory Provisions (M.G.L. c. 30, sec. 39O).

A. Notwithstanding any provision of this Contract to the contrary, except as otherwise provided by law as set forth in paragraph B below, the Contractor shall not be entitled to increase the Contract Price or to receive damages on account of any hindrances or delays, avoidable or unavoidable; but if any delay is caused in the opinion of the DCR, the Contractor shall be entitled to an extension of time. The length of the extension shall be sufficient in the opinion of the DCR for the Contractor to complete the Work. Although no delay shall increase the Contract Price, the DCR may require that any change in the date by which the Contractor must complete all or any part of the Work be processed on a Change Order form.

B. If a suspension, delay, interruption or failure to act of the DCR increases the cost of performance to any Subcontractor, that Subcontractor shall have the same rights against the Contractor with respect to such increase as the Contractor shall have against the DCR by virtue of (a) and (b) of M.G.L. c. 30, s. 39O set forth below, but nothing in provisions (a) and (b) shall alter any other rights which the Contractor or the subcontractor may have against each other. As used in the statutory language of (a) and (b) below, "contract" means this Contract, "general contractor" means the Contractor and "awarding authority" means the DCR:

"(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 or due to a failure of the awarding authority to act within the time specified in this contract, the awarding authority shall make an adjustment in the contract price for any increase in the cost of performance of this contract but shall not include any profit to the general contractor on such increase; and provided 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 twenty days before the general contractor notified the awarding authority in writing of the act or failure to act involved in the claim."

4. Occupancy and/or Use of Project Prior to Final Acceptance.

A. The Contractor agrees to the occupancy and/or use of the Project or any portion thereof before Final Acceptance of the Work by the DCR.

B. The DCR will cooperate with the Contractor with respect to the completion of the Work by taking such reasonable steps as may be possible to avoid interference with the Contractor's Work if they do not interfere with the proper functioning of the facility.

C. The Contractor shall not be responsible for wear and tear or damage resulting solely from temporary occupancy.

D. Occupancy and/or use of any part of the Work prior to Final Acceptance by the DCR shall not relieve the Contractor from maintaining the required payment and performance bonds and insurance (to the extent that insurance is required to be maintained after Substantial Completion) required by this Contract.

5. Substantial Completion – Punch List.

A. When the Work, or portion thereof which the DCR agrees to accept separately has reached the state of Substantial Completion as shown on an Approved payment request, the Contractor shall develop, with the participation of the DCR, the Punch List identifying those items of unfinished or unacceptable Work that remain to be performed or corrected under the Contract.

B. Before the Work shall be deemed completed to the point where it is ready for the issuance of Final Acceptance, the Contractor shall:

- (1) Provide Contractor's proposed Punch List containing a statement of the reason for each item listed thereon.
- (2) Advise the DCR of proposed changes in insurance in accordance with the provisions of this Contract, and provide to the DCR evidence of the Contractor's Completed Operations insurance coverage to the extent required by the Contract Documents.
- (3) Execute and submit a notarized warranty on a form provided by the DCR meeting the requirements of Article IX of these General Conditions of the Contract, to commence upon the date of the Certificate of Final Acceptance, unless otherwise provided in the Certificate of Final Acceptance.
- (4) Submit signed special warranties and warranties of longer than one year as required by the Contract Documents.
- (5) Submit signed maintenance agreements for all portions of the Work specified to receive maintenance after the issuance of the Certificate of Final Acceptance.
- (6) Submit all preliminary record Drawings to the DCR and documents and framed data in the forms required by the Contract Documents.
- (7) Complete all items required to be completed by the Department of Public Safety and obtain a Certificate of Occupancy from the Department of Public Safety and similar releases which permit the full and unrestricted use of the areas claimed to be ready for occupancy.
- (8) Deliver specified maintenance stocks of materials, required spare parts, and all special tools furnished by manufacturers to persons designated by the DCR and obtain written receipts for same.
- (9) Make final changes of lock cylinders or cores and advise the DCR of the change of project security responsibility.
- (10) Complete start-up of systems, and instruct DCR personnel on proper operation and routine maintenance of all systems and equipment.
- (11) Remove all remaining temporary facilities that are no longer needed, surplus materials, and debris; (the Contractor shall not remove construction offices and trailers without the prior Approval of the DCR).
- (12) Submit final utility meter readings and similar information and advise the DCR of the change of responsibility for utility charges and payments upon occupancy and/or use,
- (13) Complete final clean-up of all Work, restoration of damaged land and property, including finishes, and replacement of all damaged and broken glass not listed on the Contractor's Punch List.
- (14) Complete such other items as may be called for in the Special Conditions, if any, or Specifications.

C. After completing the items specified in subsection A above, the Contractor shall make a written request for the DCR's inspection for a Certificate of Final Acceptance in accordance with the Contract Documents. The DCR shall review the submittals and the Work and shall either 1) sign a Certificate of Final Acceptance or 2) notify the Contractor of incomplete and/or incorrect Work that must be completed and corrected prior to the issuance of the Certificate of Final Acceptance. The DCR shall notify the Contractor of any additions to the Punch List. In connection with the execution of the Certificate of Final Acceptance, the DCR shall assign dollar values to each item on the Punch List. Failure to include any incomplete or defective item on the Punch List shall not relieve the Contractor of the obligation to complete all Work in accordance with the Contract Documents.

6. Final Acceptance of the Work.

A. Prerequisites for Final Acceptance. After the Contractor has completed all the Work required by this Contract, including Change Orders and Punch List Items, the Contractor shall submit the following completed items to the DCR together with such additional items as may be specified in the Contract Documents:

- (1) A final request for payment showing a final accounting of all changes in the Work.
- (2) Certification and satisfactory evidence that all taxes, fees, and similar obligations have been paid.
- (3) Consent of the Surety to Final Payment executed by applicable bonding companies.
- (4) Certified copy of the Punch List stating that the Contractor has completed or corrected every item listed.
- (5) Evidence of the Contractor's continuing Completed Operations Insurance coverage to the extent required by the Contract Documents.
- (6) All final record Drawings and documents in the forms specified by the Contract Documents.
- (7) A notarized certification that all purchases made under the tax exemption certificate were legitimate and entitled to exemption.

(8) Written certifications from the Department of Public Safety and/or the DCR, where required, to the effect that: a) the Work has been inspected for compliance with the Contract Documents and has satisfied the Department of Public Safety; b) all equipment and systems included in the Work have been tested in the presence of the DCR and are operational and satisfactory; c) the Work is completed and ready for final inspection.

(9) Such other items as may be required by the Contract Documents.

B. Reinspection; Final Acceptance. After notification from the Contractor that all remaining contract exceptions, omissions, and incompletions have been completed (except for the Contractor's continuing warranty, insurance, indemnification, and such other obligations as are intended by the terms of the Contract Documents to extend beyond the date of Final Acceptance), the DCR shall inspect the Work to verify the completion of the same. If the Work is satisfactory, the DCR shall prepare a Certificate of Final Acceptance or shall notify Contractor of items which remain to be completed prior to Final Acceptance.

7. One-Year Warranty Repair List and Inspection.

Approximately 30 days prior to the expiration of the comprehensive one-year warranty period, the Contractor shall schedule an appointment with the DCR for a re-inspection of the Work with the DCR and shall thereafter inspect the Work at the time scheduled. Based on this inspection and on prior inspections, the DCR shall issue a "Warranty Repair List" of items to be corrected by the Contractor. The Contractor shall make the repairs and/or replacements listed within 30 days of the issuance of the Warranty Repair List unless otherwise agreed by the DCR in writing.

ARTICLE VII: CHANGES IN THE WORK

1. Change Orders Generally.

A. The DCR may, pursuant to the provisions of M.G.L. c. 30, sec. 39K, authorize in writing, alterations in the line, grade, plans, form, dimensions or materials of the work, or any part thereof, either before, or after the commencement of construction. If such alterations diminish or increase the quantity included to be done and paid for at a unit price, or work substituted for the work specified is of a different cost and quality, the parties shall be governed by the aforesaid provisions of Law. No changes in the Work shall be made in absence of a Change Order defined in Article I of these General Conditions of the Contract, directing the Contractor to perform such changes. A request for a change in the provisions of this Contract may be submitted to the DCR by the Contractor, Project Engineer or Resident Engineer. The request must be made in writing and in accordance with the provisions of this Contract, Laws, and the procedures of the DCR. The DCR reserves the right to increase or decrease quantities, to eliminate portions of the work or add work of similar nature, and to direct the commencement and order of prosecution of various portions of the work.

B. A Change Order may be issued by the DCR for changes in the Work within the scope of the Contract, including but not limited to, changes in: (1) the Plans and Specifications; (2) the method or manner of performance of the Work; (3) the DCR-furnished facilities, equipment, materials, services, or Site; (4) the schedule for performance of the Work.

C. The Contractor shall immediately perform any Change Order work that is ordered by the DCR.

D. Whenever a Change Order is issued and said Change Order will cause a change in the Contractor's cost, the Contractor or the DCR may request an equitable adjustment in the Contract Price. A request for such an adjustment shall be in writing and shall be submitted by the party making such claim to the other party before commencement of the pertinent work or as soon thereafter as possible.

E. The DCR and the Contractor shall negotiate in good faith an agreement on an equitable adjustment in the Contract Price, and/or time if appropriate, before commencement of the pertinent work or as soon thereafter as is possible. In the absence of an agreement for an equitable adjustment, the DCR shall unilaterally determine the costs attributable to the change and provide the Contractor with a written notice to that effect. The determination of the DCR shall be final as to all questions of the amount and value of extra work, where the Contractor does not appeal said decision pursuant to the process set forth in this paragraph. The Contractor may appeal the decision of the DCR within thirty days of receipt of said notice, to the Commissioner of the DCR or his designee. The Contractor shall have the right to such further appeal as is provided in M.G.L. c. 30, sec. 39Q set forth in Section 4.D of this Article VII. However, if the Contractor shall exercise its rights to appeal the decision of the DCR as

aforesaid, the Contractor shall be required to engage in the mediation procedures set forth in Section 5 of this Article VII, should the DCR require such mediation.

F. During the negotiation of an equitable adjustment in the Contract Price, the Contractor shall, if requested, provide the DCR with all cost and pricing data used by him in computing the amount of the equitable adjustment, and the Contractor shall certify that the pricing data used was accurate, complete, and current. If the DCR subsequently determines that the data submitted by the Contractor was incomplete, incorrect, or not current, the DCR may exclude such data from consideration under the equitable adjustment request.

2. Methods of Computing Equitable Adjustments.

A. Equitable adjustments in the Contract Price shall be determined according to one of the following methods, or a combination thereof, as determined by the DCR: (1) fixed price basis, provided that the fixed price shall be inclusive of items (a) through (e) below and shall be computed in accordance with those provisions; (2) estimated lump sum basis to be adjusted in accordance with Contract unit prices or other agreed upon unit prices provided that the unit prices shall be inclusive of all costs related to such equitable adjustment; (3) time and materials basis to be subsequently adjusted on the basis of actual costs (but subject to a predetermined "not to exceed limit") calculated as follows:

(a) the direct cost (or credit) for labor at the minimum wage rates established for this Contract pursuant to M.G.L.

c. 149, sections 26-27H, and the direct cost for material and use of equipment.

(b) plus (or minus) the cost of Workmen's Compensation Insurance, Liability Insurance, Federal Social Security and Massachusetts Unemployment Compensation, or as an alternative the Contractor may elect to use a flat 30% of the total labor rate computed in accordance with subparagraph (a) above.

(c) plus, an allowance equal to 20% of the amount of (a) above for overhead, superintendence, and profit; (In the case of Item 1 work, which is the work of the Contractor and all his non-filed Subcontractors, said 20% allowance shall be paid to the Contractor and the Contractor and said non-filed Subcontractors shall agree upon the distribution of this amount as a matter of contract between them. In the case of Item 2 work, which is work performed by a Subcontractor filed pursuant to M.G.L. c. 149, sec. 44F, said 20% allowance shall be paid to the filed Subcontractor, it being understood that this provision does not apply to other Subcontractors including sub-Subcontractors listed under paragraph E of the form for sub-Bid).

(d) plus, for work performed by a Subcontractor filed pursuant to M.G.L. c. 149, sec. 44F, an additional allowance equal to 7% of the sum of (a) through (c) above as full compensation to the Contractor for processing forms and assuming full responsibility for the faithful performance of such work by said filed Subcontractor(s).

(e) plus (or minus) the actual direct additional premium costs and expenses incurred because of collective bargaining agreements or other agreements between organized labor and employers, and plus (or minus) the actual direct premium cost of payment and performance bonds required of the Contractor and filed Subcontractors for this Contract.

B. If the net change is an addition to the Contract Price, it shall include the Contractor's overhead, superintendence, and profit. On any change that involves a net credit, no allowance for overhead, superintendence and profits shall be included. For any change that does not include labor performed or materials installed in the Project, there will be no markup for the Contractor's overhead, superintendence, and profit, even though there may be a net increase in the Contract Price. Charges for small tools known as "tools of the trade" are not to be computed in the amount of any change in the Contract Price.

C. Statutory Contract adjustments made under the provisions of M.G.L. c. 149, sec. 44F shall not be considered Change Orders and shall not entitle the Contractor to any adjustments for overhead, profit, and superintendence, although the DCR may require that such Contract adjustments be processed on standard Change Order and equitable adjustment forms.

3. Work Performed Under Protest.

The Contractor agrees to perform all Work as directed by the DCR, and if the Project Engineer determines that certain Work that the Contractor believes to be or to warrant a Change Order under this Article does not represent a change in the Work, the Contractor shall perform said Work. The Contractor shall be deemed to have concurred with the Project Engineer's determination as aforesaid unless the Contractor shall perform Work under protest in compliance with the following sub-paragraphs (1) and (2) below:

(1) If the Contractor claims compensation for a change in the Work that is not deemed by the Project Engineer to be a change or to warrant additional compensation as claimed by the Contractor, the Contractor shall within one week after the commencement of any such work or the sustaining of any such damage submit to the Resident Engineer a written statement of the nature of such work or claim. The Contractor shall not be entitled to additional compensation for any work performed or damage sustained for which written notice is not given within the time limit specified in the preceding sentence, even though similar in character to work or damage with respect to which notice is timely given.

(2) On or before the fifteenth day of the month succeeding that in which any such extra work shall have been done or any such damage shall have been sustained, the Contractor shall file to the extent possible with the Resident Engineer, itemized statements of the details and costs of such work performed, or damage sustained. If the Contractor shall fail to make such statement to the extent possible, then the Contractor shall not be entitled to additional compensation for any such work or damages.

4. False Claims. Statutory Provisions Regarding Changes.

A. Criminal Penalties: The Contractor's attention is directed to M.G.L. c. 30, sec. 39I which provides criminal penalties for unauthorized deviations from the Plans and Specifications, and to M.G.L. c. 30, sec. 39J, and if performing work on a capital facility project, M.G.L. c. 7, sec. 42E-42I. The Contractor's attention is also directed to M.G.L. c. 266, sec. 67B which provides criminal penalties for false claims by Contractor under this Contract:

"Whoever makes or presents to any employee, department, agency or public instrumentality of the commonwealth, or of any political subdivision thereof, any claim upon or against any department, agency, or public instrumentality of the commonwealth, or any political subdivision thereof, knowing such claim to be false, fictitious, or fraudulent, shall be punished by a fine of not more than ten thousand dollars or by imprisonment in the state prison for not more than five years, or in the house of correction for not more than two and one-half years, or both."

B. Differing Site Conditions (M.G.L. c. 30, sec. 39N): *"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 and 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."*

C. Timely Decision by Awarding Authority. (M.G.L. c. 30, sec. 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 requires 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."*

D. Change Order / Contract Interpretation Appeal Procedure (M.G.L. c. 30, sec. 39Q): The following provisions apply to every contract awarded by any state agency as defined by M.G.L. c. 7, sec. 39A for the construction, reconstruction, alteration, remodeling, repair, or demolition of any capital facility as defined by the aforesaid section 39A:

"(a) Disputes regarding changes in and interpretations of the terms or scope of the contract and denials of or failures to act upon claims for payment for extra work or materials shall be resolved according to the following procedures, which shall constitute the exclusive method for resolving such disputes. Written notice of the matter in dispute shall be submitted promptly by the claimant to the chief executive official of the state agency which awarded the contract or his designee. No person or business entity having a contract with a state agency shall delay, suspend, or curtail performance under that contract because of any dispute subject to this section. Any

disputed order, decision or action by the agency or its authorized representative shall be fully performed or complied with pending resolution of the dispute.

"(b) Within thirty days of submission of the dispute to the chief executive official of the state agency or his designee, he shall issue a written decision stating the reasons therefore and shall notify the parties of their right of appeal under this section. If the official or his designee is unable to issue a decision within thirty days, he shall notify the parties to the dispute in writing of the reasons why a decision cannot be issued within thirty days and of the date by which the decision shall issue. Failure to issue a decision within the thirty-day period or within the additional time specified in such written notice shall be deemed to constitute a denial of the claim and shall authorize resort to the appeal procedure described below. The decision of the chief executive official or his/her designee shall be final and conclusive unless an appeal is taken as provided below.

"(c) Within twenty-one calendar days of the receipt of a written decision or of the failure to issue a decision as stated in the preceding subparagraph, any aggrieved party may file a notice of claim for an adjudicatory hearing with the division of hearing officers or the aggrieved party may file an action directly in a court of competent jurisdiction and shall serve copies thereof upon all other parties in the form and manner prescribed by the rules governing the conduct of adjudicatory proceedings of the division of hearing officers. In the event an aggrieved party exercises his option to file an action directly in court as provided in the previous sentence, the twenty-one-day period shall not apply to such filing and the period of filing such action shall be the same period otherwise applicable for filing a civil action in superior court. The appeal shall be referred to a hearing officer experienced in construction law and shall be prosecuted in accordance with the formal rules of procedure for the conduct of adjudicatory hearings of the division of hearing officers, except as provided below. The hearing officer shall issue a final decision as expeditiously as possible, but in no event more than one hundred and twenty calendar days after conclusion of the adjudicatory hearing, unless the decision is delayed by a request for extension of time for filing post-hearing briefs or other submissions assented to by all parties. Whenever, because an extension of time has been granted, the hearing officer is unable to issue a decision within one hundred and twenty days, he shall notify all parties of the reasons for the delay and the date when the decision will issue. Failure to issue a decision within the one-hundred-and-twenty-day period or within the additional period specified in such written notice shall give the petitioner the right to pursue any legal remedies available to him without further delay.

"(d) When the amount in dispute is less than ten thousand dollars, a contractor who is party to the dispute may elect to submit the appeal to a hearing officer experienced in construction law for expedited hearing in accordance with the informal rules of practice and procedure of the division of hearing officers. An expedited hearing under this subparagraph shall be available at the sole option of the contractor. The hearing officer shall issue a decision no later than sixty days following the conclusion of any hearing conducted pursuant to this subparagraph. The hearing officer's decision shall be final and conclusive and shall not be set aside except in cases of fraud."

5. Mediation.

In the case of every dispute where the dollar amount in dispute (or the estimated dollar value of the extension of time in dispute) is \$50,000 or more and the Contractor appeals the decision of the DCR or his designee described in Section 4.B above, the DCR shall retain the option at its sole discretion of initiating a process whereby the DCR and the Contractor shall engage in good faith in a non-binding mediation process, which process shall be concluded within sixty days from the date that the Contractor files an appeal from said decision as provided in Section 4.B above.

ARTICLE VIII: PAYMENT PROVISIONS

1. Schedule of Values.

Before the first application for payment the Contractor shall submit to the DCR a schedule of values allocated to various portions of the Work in sufficient detail to reflect the various major components of each trade (with filed Subcontractors as well as MBE/WBE noted), including quantities when requested, aggregating the total Contract Price, and divided so as to facilitate payments for work under each section of the Specifications. The schedule shall be prepared in such form and supported by such data to substantiate its accuracy as the DCR may require. Each item in the schedule shall include its proper share of overhead and profit. When approved by the DCR, it shall constitute the Schedule of Values and shall be used only as a basis for the Contractor's requests for payments.

2. Payment Liabilities of Contractor.

A. The Contractor shall pay to the DCR all expenses, losses, and damages, as determined by the DCR, incurred in consequence of any default, defect, omission or mistake of the Contractor or his/her employees or Subcontractors or the making good thereof.

B. If the Work (or a portion thereof) is not completed to Substantial Completion and the Contractor has not fully completed the Work by the date specified in Article 2 of the Department of Conservation and Recreation - Contractor Agreement, the Contractor shall pay to the DCR liquidated damages as provided in Article VI, Section 2 of these General Conditions of the Contract.

3. Retention of Moneys by the DCR.

A. The DCR may keep any moneys which would otherwise be payable at any time hereunder, and apply the same, or so much as may be necessary therefor, to (1) the DCR's expenditures for the Contractor's account, (2) to secure the DCR's remedies against the Contractor for the Contractor's breach of its obligations under this Contract or the breach of any person performing any part of the Work and (3) the payment of any expenses, losses or damages incurred by the DCR as a result of the failure of the Contractor to perform its obligations hereunder. The DCR may retain, until all claims are settled, such moneys as the DCR estimates to be the fair value of the DCR's claims against the Contractor, and of all claims for labor performed or furnished and for materials used or employed in or in connection with the Work and for the rental of vehicles, appliances and equipment employed and for the employment of substitute contractors and labor in connection with the Work, in accordance with M.G.L. c. 30, sections 39A and 39F. The DCR may make such settlements and apply thereto any moneys retained under this Contract.

B. The Contractor shall each week examine all claims so filed, and if the same are in any respect incorrect or do not correctly show the amount due from the Contractor to the claimant for such labor and materials, the Contractor shall forthwith file with the DCR a separate written statement of all inaccuracies in each claim and of the correct amount due from the Contractor to each claimant therefor, and shall immediately file a statement of all payments thereafter made to such claimants. Each such statement shall be sworn to and contain a detailed breakdown as required by M.G.L. c. 30 s. 39F(d). Unless such statements are so filed by the Contractor the amount shown by the claims filed shall at the option of the DCR be conclusively deemed to be the accurate amount due from the Contractor therefor in all accounting with the DCR. If the moneys retained under this Contract are insufficient to pay the sums found by the DCR to be due under the claims for labor and materials filed as aforesaid, the DCR may, at its discretion, pay the same, and the Contractor shall repay to the DCR all sums paid out. The DCR may also at its discretion use any moneys retained, due or to become due under this Contract, for the purpose of paying for both labor and materials used or employed in the Work for which claims have not been filed with the DCR.

C. No moneys retained under the provisions of this Article shall be held to be statutory security for the payment of claims filed in accordance with the provisions of M.G.L. c. 149, sec. 29, as amended, for which security is provided by bond.

4. Applications for Payment.

A. The Contractor shall, once in each month on the day of the month corresponding to the day of the month specified in the Notice to Proceed referenced in Article 2 of the Department of Conservation and Recreation - Contractor Agreement, in writing and in the manner prescribed by the DCR, submit to the Resident Engineer a statement showing the total amount of Work done to the time of such estimate and the value thereof as approved by the Resident Engineer and the Project Engineer. It shall be the sole responsibility of the Contractor to deliver or cause to be delivered to the Resident Engineer said periodic estimate in proper form, approved as provided above and arithmetically correct. All periodic estimates shall contain such certifications and other evidence supporting the Contractor's right to payment as the DCR may require, including without limitation, lien waivers and other evidence, on such forms as the DCR may require, establishing that title to the equipment or materials is unencumbered and has been transferred to the Department of Conservation and Recreation. If there is no Resident Engineer assigned to the Contract, the DCR shall designate a person at the project field office or alternatively the home office of the DCR. The Contractor shall include in such periodic estimate only such materials as are incorporated in the Work, except as provided in paragraph C below. The DCR shall retain no more than five percent of such estimated value as part security for the completion of the Work and shall pay to the Contractor while carrying on the Work the balance not retained as aforesaid, subject to the approval of the DCR after deducting therefrom all previous payments and all sums to be kept under the provisions of this Contract.

B. Each periodic estimate shall constitute the Contractor's representation that (1) the payment then requested to be disbursed has been incurred by the Contractor on account of the Work and is justly due to Subcontractors or, to the Contractor in the case of other Work performed by the Contractor on account thereof, (2) the materials, supplies and equipment for which Application for Payment is being submitted have been installed or incorporated into the Work or have been stored at the Site or at such off Site storage locations as the DCR shall have Approved, (3) the materials, supplies and equipment are insured in accordance with the provisions of this Contract, (4) the materials, supplies and equipment are owned by the Department of Conservation and Recreation and are not subject to any liens or encumbrances, (5) the Work which is the subject of such periodic estimate has been performed in accordance with the Contract Documents and (6) that all due and payable bills with respect to the Work have been paid to date or shall be paid from the proceeds of such periodic estimate. The Contractor's attention is directed to the criminal penalties for false claims referenced in paragraph A above.

C. The Contractor may include in a periodic estimate the value of materials or equipment delivered at the Site (or at some location agreed to in writing) only upon delivery to the DCR of: (1) an acceptable transfer of title on the form provided by the DCR; (2) written certification by the Contractor (or applicable subcontractor) on the form provided by the DCR that the Contractor (or the Subcontractor which executed the transfer of title) is the lawful owner and that the materials or equipment are free from all encumbrances, accompanied by receipted invoices or other acceptable proof of encumbrance-free ownership if such proof is deemed necessary by the DCR; (3) a stored materials insurance binder that covers the materials for which payment is requested, that names the Department of Conservation and Recreation as an insured party should the stored materials be subjected to any casualty, loss, or theft prior to their inclusion in the Work. The material(s) or equipment must, in the judgment of the DCR (1) meet the requirements of the Contract, including prior drawing, product data, and sample approval, (2) be ready for use, and (3) be properly stored by the Contractor and be adequately protected until incorporated into the Work. See also Article V.5.C of these General Conditions of the Contract concerning the cost of inspections.

D. The DCR may make changes in any periodic estimate submitted by the Contractor in accordance with M.G.L. c. 30, sec. 39K for building projects (see below), and in accordance with M.G.L. c. 30, sec. 39G for public works projects (see below), and the payment due shall be computed in accordance with the changes so made. The provisions of said section 39K shall govern payments for building projects on which the DCR has made changes, and the provisions of said section 39G shall govern payments for public works projects on which the DCR has made changes.

E. No certificate for payment and no progress payment shall constitute acceptance of Work that is not in accordance with the Contract Documents.

F. The Contractor and all Subcontractors furnishing labor on this Contract agree to furnish certified payroll reports if requested to do so, at no additional expense to the DCR. The DCR may at all reasonable times audit such reports.

5. Periodic Payments (M.G.L. c. 30, sec. 39K) for Building Projects.

For building contracts, the DCR shall make payment to the Contractor in accordance with M.G.L. c. 30, sec. 39K, which provides as follows:

" Within fifteen days (30 days in the case of the commonwealth, including local housing authorities) after receipt from the contractor, at the place designated by the awarding authority if such a place is so designated, of a periodic estimate requesting payment of the amount due for the preceding month, the awarding authority will make a 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 awarding authority upon certification by the contractor that he is the lawful awarding authority and that the materials are free from all encumbrances, but 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 thirty-nine F, 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 sixty-five 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 the original contract price, or (b) the contractor substantially completes the work and the awarding authority takes possession for occupancy, whichever occurs first, the awarding authority 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 thirty-nine 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 thirty-nine F. If the awarding authority 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 then charged by the Federal Reserve Bank of Boston commencing on the first day after said payment is due and continuing until the payment is delivered or mailed to the contractor; provided, that no interest shall be due, in any event, on the amount due on a periodic estimate for final payment until fifteen days (twenty-four days in the case of the commonwealth) after receipt of such periodic estimate from the contractor, at the place designated by the awarding authority if such a place is so designated. The contractor agrees to pay to each subcontractor a portion of any such interest paid in accordance with the amount due each subcontractor.

The awarding authority may make changes in any periodic estimate submitted by the contractor and the payment due on said periodic estimate shall be computed in accordance with the change so made, but such changes or any requirement for a corrected periodic estimate shall not affect the due date for the periodic payment or the date for the commencement of interest charges on the amount of the periodic payment computed in accordance with the changes made, as provided herein; provided, that the awarding authority may, within seven days after receipt, return to the contractor for correction, any periodic estimate which is not in the required form or which contains computations not arithmetically correct and, in that event, the date of receipt of such periodic estimate shall be the date of receipt of the corrected periodic estimate in proper form and with arithmetically correct computations. The date of receipt of a periodic estimate received on a Saturday shall be the first working day thereafter. The provisions of section thirty-nine G shall not apply to any contract for the construction, reconstruction, alteration, remodeling, repair, or demolition of any public building to which this section applies.

All periodic estimates shall be submitted to the awarding authority, or to its designee as set forth in writing to the contractor, and the date of receipt by the awarding authority or its designee shall be marked on the estimate. All periodic estimates shall contain a separate item for each filed sub-trade and each sub-sub-trade listed in sub-bid form as required by specifications and column listing the amount paid to each filed subcontractor as of the date of the periodic estimate is filed. The person making payment for the awarding authority shall add the daily interest provided for herein to each payment for each day beyond the due date of receipt marked on the estimate.

A certificate of the architect to the effect that the contractor has fully or substantially completed the work shall, subject to the provisions of section thirty-nine J, be conclusive for the purposes of this section.

Notwithstanding the provisions of this section, at any time after the value of the work remaining to be done is, in the estimation of the awarding authority, less than 1 per cent of the adjusted contract price, or the awarding authority has determined that the contractor has substantially completed the work and the awarding authority has taken possession for occupancy, the awarding authority may send to the general contractor by certified mail, return receipt requested, a complete and final list of all incomplete and unsatisfactory work items, including, for each item on the list, a good faith estimate of the fair and reasonable cost of completing such item. The general contractor shall then complete all such work items within 30 days of receipt of such list or before the contract completion date, whichever is later. If the general contractor fails to complete all incomplete and unsatisfactory work items within 45 days after receipt of such items furnished by the awarding authority or before the contract completion date, whichever is later, subsequent to an additional 14 days' written notice to the general contractor by certified mail, return receipt requested, the awarding authority may terminate the contract and complete the incomplete and unsatisfactory work items and charge the cost of same to the general contractor and such termination shall be without prejudice to any other rights or remedies the awarding authority may have under the contract. The awarding authority shall note any such termination in the evaluation form to be filed by the awarding authority pursuant to the provisions of section 44D of chapter 149."

6. Payment of Subcontractors (M.G.L. c. 30, sec. 39F).

The Contractor shall make payments to Subcontractors in accordance with the provisions of M.G.L. c. 30, sec. 39F, which is quoted in this section below, where applicable. (M.G.L. c. 30, sec. 39F requires that subparagraphs (a) through (h) be set forth in contracts awarded under M.G.L. c. 30, sec. 39M and M.G.L. c. 149, sections 44A-44H;

said statute requires that subparagraph (i) be set forth in contracts awarded under M.G.L. c. 149, sections 44A-44H).

"1(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 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 or which is to be included in a payment to the general contractor for payment to the subcontractor as provided in subparagraphs (1) and (2) 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 subcontract 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 reply shall contain a detailed breakdown of the balance due under the subcontract and 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 subcontractor has substantially completed 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 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 labor 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 deduction 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 (5) 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 demand for direct payments deposited in an interest-bearing

account or accounts in a bank pursuant to subparagraph (6) shall be made out of amounts payable to the general 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 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 (6) 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.

(i) If the subcontractor does not receive payment as provided in subparagraph (1) or if the general 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 (1), the subcontractor may demand direct payment by following the procedure in subparagraph (4) and the general 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 performed or furnished the labor and materials 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 general contractor. Thereafter the awarding authority shall proceed as provided in subparagraph (e), (f), (g) and (h).

(2) Any assignment by a subcontractor of the rights under this section to a surety company furnishing a bond under the provisions of section twenty-nine of chapter one hundred forty-nine shall be invalid. The assignment and subrogation rights of the surety to amounts included in a demand for direct payment which are in the possession of the awarding authority, or which are on deposit pursuant to subparagraph (6) shall be subordinate to the rights of all subcontractors who are entitled to be paid under this section and who have not been paid in full.

(3) "subcontractor" as used in this section (I) for contracts awarded as provided in sections forty-four A to forty-four L, inclusive, of chapter one hundred forty-nine shall mean a person who files a sub-bid and received a subcontract as a result of that filed sub-bid or who is approved by the awarding authority in writing as a person performing labor or both performing labor and furnishing materials pursuant to a contract with the general contractor, (ii) for contracts awarded as provided in paragraph (1) of section thirty-nine M of chapter thirty shall mean a person approved by the awarding authority in writing as a person performing labor or both performing labor and furnishing materials pursuant to a contract with the general contractor, and (iii) for contracts with the commonwealth not awarded as provided in sections forty-four A to forty-four L, inclusive, of chapter one hundred forty-nine shall also mean a person contracting with the general contractor to supply materials used or employed in a public works project for a price in excess of five thousand dollars.

(4) A general contractor or a subcontractor shall enforce a claim to any portion of the amount of a demand for direct payment deposit as provided in subparagraph (6) by a petition in equity in the superior court against the other and the bank shall not be a necessary party. A subcontractor shall enforce a claim for direct payment or a right to require a deposit as provided in subparagraph (6) by a petition in equity in the superior court against the awarding authority and the general contractor shall not be a necessary party. Upon motion of any party the court shall advance for speedy trial any petition filed as provided in this paragraph. Sections fifty-nine and fifty-nine B of chapter two hundred thirty-one shall apply to such petitions. The court shall enter an interlocutory decree upon which execution shall issue for any part of a claim found due pursuant to sections fifty-nine and fifty-nine B and, upon motion of any party, shall advance for speedy trial the petition to collect the remainder of the claim. Any party aggrieved by such interlocutory decree shall have the right to appeal therefrom as from a final decree. The court shall not consolidate for trial the petition of any subcontractor with the petition of one or more subcontractors or the same general Contract unless the court finds that a substantial portion of the evidence of the same events during the course of construction (other than the fact that the claims sought to be consolidated arise under the same general contract) is applicable to the petitions sought to be consolidated and that such consolidation will prevent unnecessary duplication of evidence. A decree in any such proceeding shall not include interest on the disputed amount deposited more than the interest earned for the period of any such deposit. No person except a subcontractor filing a demand for direct payment for which no funds due the general contractor are available for direct payment shall have a right to file a petition in court of equity against the awarding authority claiming a demand for direct payment is premature and such subcontractor must file the petition before the awarding authority has made a direct payment to the subcontractor and has made a deposit of the disputed portion as

provided in part (iii) of subparagraph (5) and in subparagraph (6).

(5) In any petition to collect any claim for which a subcontractor has filed a demand for direct payment the court shall, upon motion of the general contractor, reduce by the amount of any deposit of a disputed amount by the awarding authority as provided in part (iii) of subparagraph (5) and in subparagraph (6) any amount held under a trustee writ or pursuant to a restraining order or injunction.”

7. Contracts for Public Works Governed by M.G.L. c. 30, sec. 39G:

The following statutory provision applies only to contracts for public works governed by M.G.L. c. 30, sec. 39G: *“Upon substantial completion of the work required by a Contract with the Owner, or any agency or political subdivision thereof, for the construction, reconstruction, alteration, remodeling, repair or improvement of public ways, including bridges, and other highway structures, sewers and water mains, airports and other public works, the contractor shall present in writing to the awarding authority its certification that the work has been substantially completed. Within twenty-one days thereafter, the awarding authority shall present to the contractor either a written declaration that the work has been substantially completed or an itemized list of incomplete or unsatisfactory work items required by the Contract sufficient to demonstrate that the work has not been substantially completed. The awarding authority may include with such a list a notice setting forth a reasonable time, which shall not in any event be prior to the Contract completion date, within which the contractor must achieve substantial completion of the work. If the awarding authority fails to respond, by presentation of a written declaration or itemized list as aforesaid, to the contractor’s certification within the twenty- one-day period, the contractor’s certification shall take effect as the awarding authority’s declaration that the work has been substantially completed.*

Within sixty-five days after the effective date of a declaration of a substantial completion, the awarding authority shall prepare and forthwith send to the contractor for acceptance a substantial completion estimate for the quantity and price of the work done and all but one percent retainage of that undisputed part of each work item and extra work item in dispute but excluding the disputed part thereof, less the estimated cost of completing all incomplete and unsatisfactory work items and less the total periodic payments made to date for the work. The awarding authority also shall deduct from the substantial completion estimate an amount equal to the sum of all demands for direct payments filed by subcontractors and not yet paid to subcontractors or deposited in joint accounts pursuant to section thirty-nine F, but no Contract subject to said section thirty-nine F shall contain any other provision authorizing the awarding authority to deduct any amount by virtue of claims asserted against the Contract by subcontractors, material suppliers or others.

If the awarding authority fails to prepare and send to the contractor any substantial completion estimate required by this section on or before the date herein above set forth, the awarding authority shall pay to the contractor interest on the amount which would have been due to the contractor pursuant to such substantial completion estimate at the rate of three percentage points above the rediscount rate then charged by the Federal Reserve Bank of Boston from such date to the date on which the awarding authority sends that substantial completion estimate to the contractor for acceptance or to the date of payment therefor, whichever occurs first. The awarding authority shall include the amount of such interest in the substantial completion estimate.

Within fifteen days after the effective date of the declaration of substantial completion, the awarding authority shall send to the contractor by certified mail, return receipt requested, a complete list of all incomplete or unsatisfactory work items, and, unless delayed by causes beyond his control, the contractor shall complete all such work items within forty-five days after the receipt of such list or before the then Contract completion date, whichever is later. If the contractor fails to complete such work within such time, the awarding authority may, after seven days’ written notice to the contractor by certified mail, return receipt requested, terminate the Contract, and complete the incomplete or unsatisfactory work items and charge the cost of same to the contractor.

Within thirty days after receipt by the awarding authority of a notice from the contractor stating that all of the work required by the Contract has been completed, the awarding authority shall prepare and forthwith send to the contractor for acceptance a final estimate for the quantity and price of the work done and all retainage on that work less all payments made to date, unless the awarding authority’s inspection shows that work items required by the Contract remain incomplete or unsatisfactory, or that documentation required by the Contract has not been completed. If the awarding authority fails to prepare and send to the contractor the final estimate within thirty days

after receipt of notice of completion, the awarding authority shall pay to the contractor interest on the amount which would have been due to the contractor pursuant to such final estimate at the rate hereinabove provided from the thirtieth day after such completion until the date on which the awarding authority sends the final estimate to the contractor for acceptance or the date of payment therefore, whichever occurs first, provided that the awarding authority's inspection shows that no work items required by the Contract remain incomplete or unsatisfactory. Interest shall not be paid hereunder on amounts for which interest is required to be paid in connection with the substantial completion estimate as hereinabove provided. The awarding authority shall include the amount of the interest required to be paid hereunder in the final estimate.

The awarding authority shall pay the amount due pursuant to any substantial completion or final estimate within thirty-five days after receipt of written acceptance for such estimate from the contractor and shall pay interest on the amount due pursuant to such estimate at the rate hereinabove provided from that thirty-fifth day to the date of payment. Within 15 days, 30 days in the case of the commonwealth, after receipt from the contractor, at the place designated by the awarding authority, if such place is designated, of a periodic estimate requesting payment of the amount due for the preceding periodic estimate period, the awarding authority shall make a periodic payment to the contractor for the work performed during the preceding periodic estimate period 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 authorized the contractor to transfer title to the awarding authority, upon certification by the contractor that he is the lawful owner and that the materials are free from all encumbrances. The awarding authority shall include with each such payment interest on the amount due pursuant to such periodic estimate at the rate herein above provided from the due date. In the case of periodic payments, the contracting authority may deduct from its payment a retention based on the estimate of the fair value of its claims against the contractor, a retention for direct payments to subcontractors based on demands for same in accordance with the provisions of section thirty-nine F, and a retention to secure satisfactory performance of the contractual work not exceeding five per cent of the approved amount of any periodic payment, and the same right to retention shall apply to bonded subcontractors entitled to direct payment under section thirty-nine F of chapter thirty; provided that a five per cent value of all items that are planted in the ground shall be deducted from the periodic payments until final acceptance.

No periodic, substantial completion or final estimate or acceptance or payment thereof shall bar a contractor from reserving all rights to dispute the quantity and amount of, or the failure of the awarding authority to approve a quantity and amount of, all or part of any work item or extra work item.

Substantial completion, for the purposes of this section, 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 Price, 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"

8. Liens

Neither the final payment nor any part of the retained percentage shall become due until the Contractor, if required, delivers to the DCR a complete release of all liens arising out of this Contract, or receipts in full in lieu thereof and, if required in either case, an affidavit that so far as he/she has knowledge or information, the releases and receipts include all labor and material for which a lien could be filed; but the Contractor may, if any Subcontractor refuses to furnish a release or receipt in full, furnish a bond satisfactory to the DCR, to indemnify him against any lien. If any lien remains unsatisfied after all payments are made, the Contractor shall refund to the DCR, all moneys that the latter may be compelled to pay in discharging such a lien, including all costs and a reasonable attorney's fee.

9. Final Payment: Release of Claims by Contractor.

Upon Final Acceptance of the Work the Contractor shall be entitled to payment of the balance of the Contract Price. Final payment shall be as provided in this Article above and in accordance with any process set forth in the Special Conditions. The Contractor agrees to execute a Certificate of Final Inspection, Release (with Contractor's own exceptions listed thereon) and Acceptance as a condition precedent to Final Payment. The acceptance by the Contractor of the Final Payment made as aforesaid, or the execution of the Certificate of Final Acceptance by the Contractor, shall constitute a release of the Department of Conservation and Recreation, and every member

and agent of it, from all claims of and liability to the Contractor for anything done or furnished for or relating to the Work, or for any act or neglect of the Department of Conservation and Recreation, or of any person relating to or affecting the Work, except the claim against the Department of Conservation and Recreation for the remainder, if any there be, of the amounts set forth by the Contractor in the Certificate of Final Inspection, Release and Acceptance. Final Acceptance shall not relieve the Contractor of the requirements of Articles IX, XIV, and XV of these General Conditions of the Contract, or of other provisions of this Contract, to the extent that the same are intended to survive Final Acceptance.

ARTICLE IX. GUARANTEES AND WARRANTIES

1. General Warranty.

If at any time during the period of one (1) year from the date of Final Acceptance, any part of such Work shall in the reasonable opinion of the DCR be defective or require replacing or repairing, or damage to other property of the DCR is caused by any defect in the Work, the DCR shall notify the Contractor in writing to make the required repairs or replacements and repair such damage. If the Contractor shall neglect to commence such repairs or replacements to the satisfaction of the DCR within ten (10) days from the date of the giving of such notice, then the DCR may employ other persons to make the same. The Contractor agrees, upon demand, to pay to the DCR all amounts which it expends for such repairs, replacements, and/or damages. During this one-year guarantee period any corrective work shall be performed under all the applicable terms of this Contract, and if Change Orders are issued in accordance with the terms of this Contract, the Contractor shall be entitled to compensation for special insurance, as required. This one-year guarantee shall not limit any express guaranty or warranty provided elsewhere in the Contract.

2. Special Guarantees and Warranties.

A. The Contractor's obligation to correct Work as set forth in paragraph 1 above is in addition to, and not in substitution of, such guarantees or warranties as may be required in the various sections of the Specifications.

B. Guarantees and warranties required in the various sections of the Specifications must be delivered to the DCR before final payment to the Contractor may be made, or in the case of guarantees and warranties which originate with a subcontractor's section of the Work, before final payment for that sub-trade or for the phase of Work to which the guarantee or warranty relates.

C. The failure to deliver a required guarantee or warranty shall constitute a failure to fully complete the Work in accordance with the Contract Documents.

ARTICLE X: MISCELLANEOUS LEGAL REQUIREMENTS.

1. Contractor to be Informed.

The Contractor shall inform itself of all existing and future Laws in any manner affecting those engaged or employed in the Work, or the materials used or employed in the Work, or in any way affecting the conduct of the Work, and of all orders and decrees of bodies or tribunals having any applicable jurisdiction or authority over the Work.

2. Compliance with all Laws.

The Contractor shall cause all persons employed in the performance of the Work to comply with all existing and future Laws, including but not limited to those set forth below:

A. Corporate Disclosures. The Contractor if a foreign corporation, shall comply with M.G.L. c. 30, sec. 39L.

B. Veterans Preference. In the employment of mechanics and apprentices, teamsters, chauffeurs, and laborers in the performance of Work in the Commonwealth, preference shall first be given to citizens of the Commonwealth who have been residents of the Commonwealth for at least six months at the commencement of their employment and who are veterans as defined M.G.L. c. 4, sec. 7(43), 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.

C. Prevailing Wages. The Contractor shall comply with M.G.L. c. 149, sections 26- 27H. The prevailing wage schedule is found in Exhibit A to the Instructions to Bidders, listing the prevailing minimum wage rates that must be paid to all workers

employed in the Work. The DCR is not responsible for any errors, omissions, or misprints in said schedule. Such Schedule shall continue to be the minimum rate of wages payable to workers employed in the Work throughout the term of this Contract, subject to the exceptions provided in M.G.L. c. 149, sections 26-27H. The Contractor shall not have any claim for extra compensation from the Department of Conservation and Recreation if the actual wages paid to workers employed in the Work exceeds the rates listed on the schedule or as otherwise provided by law. The Contractor shall cause a copy of said Schedule to be kept in a conspicuous place at the Site during the term of the Contract. If reserve police officers are employed by the Contractor, they shall be paid the prevailing wage of regular police officers. (See M.G.L. c. 149, sec. 34B).

D. Payroll Records and Statement of Compliance. The Contractor shall comply and shall cause its Subcontractors to comply with Massachusetts General Law c. 149, sec. 27B, which requires that a true and accurate record be kept of all persons employed on a project for which the prevailing wage rates have been provided. The Contractor and all Subcontractors shall keep these records and preserve them for a period of three years from the date of completion of the Contract. Such records shall be open to inspection by any authorized representative of the Department of Conservation and Recreation at any reasonable time, and as often as may be necessary. The Contractor shall, and shall cause its subcontractors to, submit weekly copies of their weekly payroll records to the DCR. In addition, the Contractor and each Subcontractor shall furnish to the Executive Department of Labor within fifteen days after completion of its portion of the Work a signed statement in the form required by the DCR.

E. Vehicle operators. If the Director of the Department of Labor and Workforce Development has established a Schedule of wage rates to be paid to the operators of trucks, vehicles or equipment for the Work, the Contractor shall be obligated to pay such operators at least the minimum wage rate contained on such Schedule. (See M.G.L. c. 149, sections 26-27H).

F. Eight Hour Day. The Contractor shall comply with M.G.L. c. 149, sections 30 and 34, which provide 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 part of the Work shall be required or permitted to work more than eight hours in any one day or more than forty-eight hours in any one week, or more than six days in any one week, except in cases of extraordinary emergency.

G. Timely Payment of Wages. The Contractor shall comply with and shall cause its Subcontractors to comply with M.G.L. c. 149, sec. 148 which requires the weekly or biweekly payment of employees within six days of the end of the pay period during which wages were earned if employed for five or six days of a calendar week, and within other periods of time under certain circumstances as set forth therein.

H. Lodging, etc. The Contractor shall comply with, and shall cause its Subcontractors to comply with, M.G.L. c. 149, sec. 25 which provides that every employee under this Contract shall lodge, board, and trade where and with whom he elects, and neither the Contractor nor his agents or employees shall, either directly or indirectly, require as a condition of the employment of any person that the employee shall lodge, board, or trade at a particular place or with a particular person.

I. Truck Rates. The use by the Contractor of trucks or other motor vehicles hired from either common or contract motor carriers in the course of performance of this Contract is subject to such minimum rates and charges, and rules and regulations as may from time to time be promulgated by the Department of Public Utilities of the Commonwealth of Massachusetts or other agency of the State or Federal government which may be authorized by law to set rates or otherwise regulate the use of such vehicles. The Contractor expressly assumes the risk of any additional expense that may arise by reason of any change in such minimum rates and charges, and rules and regulations, and shall be entitled to no additional compensation or reimbursement by reason thereof.

J. Anti-Boycott Covenant (Executive Order #130). The Contractor warrants, represents and agrees that during the time this Contract is in effect, neither it nor any affiliated company, as hereafter defined, participates in or cooperates with an international boycott, as defined in Section 999(b) (3) and (4) of the Internal Revenue Code of 1954, as amended, or engages in conduct declared to be unlawful by M.G.L. c. 151E, sec. 2. If there shall be a breach in the warranty, representation or agreement contained in this paragraph, then without limiting such other rights as it may have the DCR shall be entitled to rescind this contract. As used herein, an affiliated company shall be any business entity of which at least 51% of the ownership interests are directly or indirectly owned by the Contractor or by a person or persons or business entity or entities directly or indirectly owning at least 51% of the ownership interests of the Contractor; or which directly or indirectly owns at least 51% of the ownership interests of the Contractor.

K. Contractor's Agreements with Suppliers--Anti-Boycott and Anti-Discrimination Provisions.

(1) The Contractor shall not purchase or rent any materials, equipment, machinery, vehicles or supplies for or in connection with the Work from any person or entity who does not sign, under pains and penalties of perjury, a certificate that recites: "the undersigned warrants, represents and agrees that during the time its agreement with (insert contractor's name) is in effect for materials, supplies or equipment to be used in connection with the Department of Conservation and Recreation Contract No. (insert contract number), neither the undersigned or any affiliated company, as hereafter defined, participates in or cooperates with an international boycott, as defined in Section 999(b)(3) and (4) of the Internal Revenue Code of 1954, as amended, or engages in conduct declared to be unlawful by Section 2 of Chapter 151E of the Massachusetts General Laws. As used herein, an affiliated company shall be any business entity of which at least 51% of the ownership interests are directly or indirectly owned by the undersigned or by a person or persons or business entity or entities directly or indirectly owning at least 51% of the ownership interests of the undersigned; or which directly or indirectly owns at least 51% of the ownership interests of the undersigned."

(2) The DCR shall not be obligated to pay the Contractor for the cost of any materials, supplies, or equipment purchased or rented from any individual or entity from whom the Contractor has not previously obtained and delivered to the DCR the certificate that the previous paragraph requires. The Contractor will immediately terminate its contract with any supplier who breaches the warranty, representation and agreement contained in the previous paragraph.

(3) The Contractor shall include in the Contractor's agreement with any person or entity from whom the Contractor intends to purchase or rent any materials, equipment, machinery, vehicles or supplies for or in connection with the Work, (a) a notice that this Contract obligates the Contractor to terminate the supply contract upon discovery of such breach of the sworn certificate delivered under subparagraph (1) and such termination shall be without liability to the Contractor or the DCR and (b) a provision which states: "The Governor or his designee, the secretary of administration and finance, and the state auditor or his designee shall have the right at reasonable times and upon reasonable notice to examine the books, records and other compilations of the undersigned vendor which pertain to the performance and requirements of this agreement to provide materials of any nature to the undersigned contractor in connection with DCR Contract No. (insert contract number)."

L. Access to Contractor's Records (Executive Order #195). The Governor or his/her designee, the secretary of administration and finance, and the state auditor or his/her designee shall have the right at reasonable times and upon reasonable notice to examine the books, records, and other compilations of data of the Contractor which pertain to the performance and requirements of this Contract.

ARTICLE XI: CONTRACTOR'S ACCOUNTING METHOD REQUIREMENTS (M.G.L. c. 30, sec. 39R)

1. Definitions.

The words defined herein shall have the meaning stated below whenever they appear in this Article XI:

--"Contractor" means any person, corporation, partnership, joint venture, sole proprietorship, or other entity awarded a Contract pursuant to M.G.L. c. 30, sec. 39M, and M.G.L. c. 149, sections 44A-H.

--"Contract" means any Contract awarded or executed pursuant to M.G.L. c. 30, sec. 39M, M.G.L. c. 149, sections 44A-H.

--"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.

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

--"Audit", when used regarding 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 declination to

express an opinion for stated reasons.

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

2. Record Keeping.

A. The Contractor shall make, and keep for at least six years after final payment, books, records, and accounts that in reasonable detail accurately and fairly reflect the transactions and dispositions of the Contractor.

B. Until the expiration of six years after final payment, the Inspector General and the DCR shall have the right to examine any books, documents, papers or records of the Contractor and Subcontractors that directly pertain to and involve transactions relating to the Contractor and Subcontractors.

C. The Contractor shall describe any change in the method of maintaining records or recording transactions which materially affects any statements filed with the DCR including the date of the change and reasons therefor and shall accompany said description with a letter from the Contractor's independent certified public accountant approving or otherwise commenting on the changes.

D. The Contractor represents that it has, prior to the execution of the Contract, filed a statement of management on internal accounting controls as set forth in Section 3 below.

E. The Contractor represents that it has, prior to the execution of the Contract, filed an audited financial statement for the most recent completed fiscal year as set forth in section 4 below and will continue to file such statement annually during the term of the Contract.

3. Statement of Management Controls.

A. The Contractor shall file with the DCR 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: (a) to permit preparation of financial statements in conformity with generally accepted accounting principles, and (b) 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.

B. The Contractor shall file with the DCR a statement prepared and signed by an independent certified public accountant, stating that the accountant 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 subparagraph 3 above are consistent with the results of management's evaluation of the system of internal accounting controls; and
- (2) whether such representations of management are reasonable with respect to transactions and assets in amounts which would be material when measured in relation to the applicant's financial statement.

4. Annual Financial Statement.

A. Every Contractor awarded a contract under M.G.L. c. 30, sec. 39M or M.G.L. c. 149, sections 44A-44H shall annually file with the Commissioner of the Division of Capital Asset Management and Maintenance during the term of the Contract a financial statement prepared by an independent certified public accountant based on an audit by such 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 DCR upon request.

B. The office of Inspector General and the DCR shall have the right to enforce the provisions of this Article. A Contractor's failure to satisfy any of the requirements of this section may be grounds for debarment pursuant to M.G.L. c. 149, sec. 44C.

5. Bid Pricing Materials.

The Contractor shall save the written calculations, pricing information, and other data that the Contractor used to calculate the bid that induced the DCR to enter this Contract (the "Bid Pricing Materials") for at least six years after the DCR makes final payment under this Contract.

ARTICLE XII: EQUAL EMPLOYMENT OPPORTUNITY, NON-DISCRIMINATION, AND AFFIRMATIVE ACTION PROGRAM.

This Contract includes the provisions of the DCR's "Equal Employment Opportunity, Non-Discrimination, and

Affirmative Action Program," attached as Appendix A to these General Conditions of the Contract and incorporated herein by reference.

ARTICLE XIII: GOALS FOR PARTICIPATION BY MINORITY BUSINESS ENTERPRISES AND WOMEN BUSINESS ENTERPRISES

This Contract includes the provisions of the DCR's "Goals for Participation by Minority Business Enterprises and Women Business Enterprises (Executive Order 390), attached as Appendix B to these General Conditions, and as set forth in Section 8 of the Instructions to Bidders, and incorporates same herein by reference.

ARTICLE XIV: INSURANCE REQUIREMENTS

The Contractor shall carry insurance, in the amounts and types specified in Section 7 of the Instructions for Bidders for this Contract and shall comply with all provisions relating to insurance set forth in said Section 7.

ARTICLE XV: INDEMNIFICATION

1. Generally.

To the fullest extent permitted by law, the Contractor shall indemnify, defend (with counsel subject to the supervision of the Attorney General of the Commonwealth of Massachusetts as required by M.G.L. c. 12, sec. 3) and hold harmless the Commonwealth of Massachusetts, its Department of Conservation and Recreation, and its officers, agents, divisions, employees, representatives, successors and assigns from and against all claims, damages, losses and expenses, including but not limited to court costs and attorneys' fees, arising out of or resulting from the performance of the Work, including but not limited to those arising or resulting from:

- labor performed or furnished and/or materials used or employed in the performance of the Work.
- violations by the Contractor, any subcontractor, or by any person directly or indirectly employed or used by any of them in the performance of the Work or anyone for whose acts any of them may be liable (Contractor, subcontractor and all such persons herein collectively called "Contractor's Personnel") of any Laws.
- violations of any provision of this Contract by any of Contractor's Personnel.
- injuries to any persons or damage to any property in connection with the Work.
- any act, omission, or neglect of Contractor's Personnel.

The Contractor shall be obligated as provided above, regardless of whether such claims, damages, losses and/or expenses are caused in whole or in part by the actions or inactions of a party indemnified hereunder. In all claims by Contractor's Personnel against parties indemnified hereunder, the Contractor's indemnification obligation set forth above shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Contractor or any subcontractor under workers' or workmen's compensation acts, disability benefit acts or other employee benefit acts. Such obligation shall not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity which would otherwise exist as to any party or person described in this Article XV.

2. DCR's Actions.

The obligations of the Contractor under Section 1 above shall not extend to the liability of the DCR, its agents or employees, arising out of (i) the preparation or approval of maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications by the DCR, or (ii) the giving of or the failure to give directions or instructions by the DCR, its agents or employees provided such giving or failure to give is the primary cause of the injury or damage.

3. Survival.

The provisions of this Article XV are intended to survive Final Acceptance and/or any termination of this Contract.

ARTICLE XVI: PERFORMANCE AND PAYMENT BONDS

1. Contractor Bonds.

A. The Contractor shall provide performance and payment (labor and materials) bonds in the form provided by the DCR, executed by a surety licensed by the Commonwealth of Massachusetts Division of Insurance. Each such bond shall be in the amount of the Contract Price.

B. If at any time prior to final payment to the Contractor, the Surety:

- is adjudged bankrupt or has made a general assignment for the benefit of its creditors.
- has liquidated all assets and/or has made a general assignment for the benefit of its creditors.
- is placed in receivership.
- otherwise petitions a state or federal court for protection from its creditors; or
- allows its license to do business in Massachusetts to lapse or be revoked.

then the Contractor shall, within 21 days of any such action listed above, provide the DCR with new performance and payment bonds as described in Paragraph A above. Such bonds shall be provided solely at the Contractor's expense.

2. Subcontractor Bonds.

The Contractor is responsible for the costs of the payment and performance bonds of the sub-contractors for the full amount of their respective Subcontracts.

ARTICLE XVII: TERMINATION OF CONTRACT

1. Termination for Cause.

A. The DCR may without prejudice to any other right or remedy deem this Contract terminated for cause if any of the following defaults shall occur and not be cured within five days (5) days after the giving of notice thereof by the DCR to the Contractor and any surety that has given bonds in connection with this Contract:

- (1) The Contractor has filed a petition, or a petition has been filed against the Contractor with its consent, under any federal or state law concerning bankruptcy, reorganization, insolvency or relief from creditors, or if such a petition is filed against the Contractor without its consent and is not dismissed within sixty (60) days; or if the Contractor is generally not paying its debts as they become due; or if the Contractor becomes insolvent; or if the Contractor consents to the appointment of a receiver, trustee, liquidator, custodian or the like of the Contractor or of all or any substantial portion of its assets and such appointment or possession is not terminated within sixty (60) days; or if the Contractor makes an assignment for the benefit of creditors;
- (2) The Contractor refuses or fails, except in cases for which extension of time is provided under this Contract's express terms, to supply enough properly skilled workers or proper materials to perform its obligations under this Contract, or the DCR has determined that the rate of progress required for the timely completion of the Work is not being met.
- (3) The Contractor fails to make prompt payment to Subcontractors or for materials, equipment, or labor.
- (4) All or a part of the Work has been abandoned.
- (5) The Contractor has sublet or assigned all or any portion of the Work, the Contract, or claims thereunder, without the prior written consent of the Department of Conservation and Recreation, except as expressly permitted in this Contract.
- (6) The Contractor has failed to comply with Laws.
- (7) The Contractor fails to maintain, or provide to the DCR evidence of the insurance or bonds required by this Contract, or
- (8) The Contractor has failed to prosecute the Work or any portion thereof to the standards required under this Contract or has otherwise breached any material provision of this Contract.

B. The DCR shall give the Contractor, and any surety notice of such termination for cause, but the giving of notice of such termination shall not be a condition precedent or after the termination's effectiveness. In the event of such termination, and without limiting any other available remedies, the DCR may, at its option:

- (1) hold the Contractor and its sureties liable in damages for a breach of Contract.
- (2) notify the Contractor to discontinue all work, or any part thereof, and the Contractor shall discontinue all work, or any part thereof, as the Department of Conservation and Recreation may designate.
- (3) complete the Work, or any part thereof, and charge the expense of completing the Work or part thereof, to the Contractor.

(4) require the surety or sureties to complete the Work and perform all the Contractor's obligations under this Contract.

If the DCR elects to complete all or any portion of the Work as specified in (3) above, it may take possession of all materials, equipment, tools, machinery, implements owned by the Contractor at or near the Site and finish the Work at the Contractor's expense by whatever means the DCR may deem expedient; and the Contractor shall cooperate

at its expense in the orderly transfer of the same to a new contractor or to the DCR as directed by the DCR. In such case the DCR shall not make any further payments to the Contractor until the Work is finished. The Department of Conservation and Recreation shall not be liable for any depreciation, loss, or damage to said materials, machinery, implements or tools during said use and the Contractor shall be solely responsible for their removal from the Site after the Department of Conservation and Recreation has no further use for them. Unless so removed within fifteen days after notice to the Contractor to do so, they may be sold at public auction, after publication of notice thereof at least twice in any newspaper published in the county where the Work is being performed, and the proceeds credited to the Contractor's account; or they may, at the option of the DCR, be stored at the Contractor's expense subject to a lien for the storage charges.

C. Damages and expenses incurred under paragraph B above shall include, but not be limited to, costs for the DCR's extra services and Project representative services required, in the opinion of the DCR, to successfully inspect and administer the construction contract through final completion of the Work.

D. Expenses charged under paragraph B above may be deducted and paid by the DCR out of any moneys then due or to become due the Contractor under this Contract.

E. All sums, damages, and expenses incurred by the Department of Conservation and Recreation to complete the Work shall be charged to the Contractor. In case the damages and expenses charged are less than the sum that would have been payable under this Contract if the same had been completed by the Contractor, the Contractor shall be entitled to receive the difference. In case such expenses shall exceed the said sum, the Contractor shall pay the amount of the excess to the Department of Conservation and Recreation.

2. Termination For Convenience.

A. The DCR may terminate this Contract for convenience even though the Contractor is not in default by giving notice to the Contractor specifying in said notice the date of termination.

B. In case of such termination without cause, the Contractor shall be paid:

(1) all sums due and owing under this Contract through the date of termination, including any retainage withheld to the date of termination, less any amount which the DCR determines is necessary to correct or complete the Work performed to the date of termination; plus (2) a reasonable sum to cover the expenses which the Contractor would not have incurred but for the early termination of the Contract, such as demobilization of the work force, restocking charges, and termination fees payable to Subcontractors.

C. The payment provided in paragraph B above shall be considered to fully compensate the Contractor, and any consultants, Subcontractors, and suppliers, for all claims and expenses directly or indirectly attributable to the termination, including any claims for lost profits.

3. Contractor's Duties Upon Termination for Convenience.

Upon termination of this Contract for convenience as provided in Section 2 of this Article, the Contractor shall: (1) stop the Work; (2) stop placing orders and Subcontracts in connection with this Contract; (3) cancel all existing orders and Subcontracts; (4) surrender the Site to the DCR in a safe condition; (5) transfer to the DCR all materials, supplies, work in process, appliances, facilities, equipment and machinery of this Contract, and all plans, Drawings, Specifications and other information and documents used in connection with this Contract.

ARTICLE XVIII: MISCELLANEOUS PROVISIONS

1. No Assignment by Contractor.

The Contractor shall not assign by power of attorney or otherwise, or sublet or subcontract, the Work, or any part thereof, without the previous written consent of the DCR and shall not, either legally or equitably, assign any of the moneys payable under this Contract, or Contractor's claims hereunder, unless with the like consent of the DCR, whether said assignment is made before, at the time of, or after the execution of the Contract. The Contractor shall remain responsible for satisfactory performance of all Work sublet or assigned. Consent of the DCR shall not be deemed to constitute a representation or waiver of any right hereunder by the DCR as to the qualifications or the responsibility of the Contractor or Subcontractor(s).

2. Non-Appropriation.

The Commonwealth certifies that at the time of the execution of this Contract, sufficient appropriations exist and shall be encumbered to fund the Contract Price. Payments are subject to appropriation and shall be made only for work performed in accordance with the terms of this Contract. The Contractor shall not be obligated to perform,

and shall not perform, work outside the scope of this Contract without an appropriate amendment to this Contract, and a sufficient appropriation(s) to support such additional work. The Commonwealth may immediately terminate or suspend this Contract if the appropriation(s) funding this Contract is eliminated or reduced to an amount which will be insufficient to support anticipated future obligations under this Contract. Such termination shall be deemed a termination for convenience subject to the provisions of paragraph 2 of Article XVII of this Contract.

3. Claims by Others Not Valid.

No person other than the Contractor and the surety on any bond given pursuant to the terms of this Contract shall acquire any interest in this Contract or any claim against the DCR hereunder, and no claim by any other person shall be valid except as provided in M.G.L. c. 30, sec. 39F of the General Laws.

4. No Personal Liability of Public Officials.

No public official, employee, or agent of the DCR shall have any personal liability for the obligations of the DCR set forth in this Contract.

5. Severability.

The provisions of this Contract are severable, and if any of these provisions shall be held unconstitutional or unenforceable by any court of competent jurisdiction, the decision of such court shall not affect or impair any of the other provisions of this Contract.

6. Choice of Laws.

This Contract shall be governed by the laws of the Commonwealth of Massachusetts for all purposes, without regard to its laws on choice of law. All proceedings under this Contract or related to the Project shall be brought in the courts of the Commonwealth of Massachusetts.

7. Standard Forms.

Unless directed otherwise in writing by the DCR, the Contractor shall use the standard forms in use by the Department of Conservation and Recreation.

8. No Waiver of Subsequent Breach.

No waiver of any breach or obligation of this Contract shall constitute a waiver of any other or subsequent breach or obligation.

9. Remedies Cumulative.

All remedies of the DCR provided in this Contract shall be construed as cumulative and may be exercised simultaneously or in any order as determined by the DCR in its sole discretion. The DCR shall also be entitled as of right to specific performance and equitable relief including the right to an injunction against any breach of any of the provisions of this Contract

10. Notices.

Notices to the Contractor shall be deemed given when hand delivered to the Contractor's temporary field office at or near the Site, or when deposited in the U.S. mail addressed to the Contractor at the Contractor's address specified in the Department of Conservation and Recreation - Contractor Agreement, or when delivered by courier to either location. Unless otherwise specified in writing by the DCR, notices and deliveries to the DCR shall be effective only when delivered to the DCR at the address specified in the Department of Conservation and Recreation - Contractor Agreement and date-stamped at the reception desk or for which a receipt has been signed by the agent or employee designated by the DCR to receive official notices.

APPENDIX A to General Conditions of the Contract

The following provisions from Article XII of the General Conditions of the Contract where DCR is the Awarding Authority.

EQUAL EMPLOYMENT OPPORTUNITY, NON-DISCRIMINATION, AND AFFIRMATIVE ACTION

PROGRAM.

1. Compliance Generally.

For purpose of this Article, “minority” refers to Asians, Blacks, Western Hemisphere Hispanics, Native Americans, and Cape Verdeans; “Commission” refers to the Massachusetts Commission Against Discrimination. During the performance of this Contract, the Contractor and all its Subcontractors (hereinafter collectively referred to as the Contractor) shall comply with all applicable equal employment opportunity, non-discrimination and affirmative action requirements, including but not limited to the following:

2. Non-Discrimination and Affirmative Action.

A. The Contractor shall not discriminate against any employee or applicant for employment because of race, color, religious creed, national origin, age, handicap, sexual orientation, or sex. The aforesaid provision shall include, but not be limited to, the following: employment rates of pay or other forms of compensation; conditions or privileges of employment; and selection for apprenticeship. The Contractor shall comply with the provisions of MGL, c. 151B and all other applicable anti-discrimination and equal opportunity laws.

B. The Contractor shall comply with the provisions of Executive Order No. 478 entitled Revoking and Superseding Executive Orders Numbers 253 and 452, with respect to affirmative action programs for handicapped individuals, which is herein incorporated by reference and made a part of this Contract.

C. In connection with the performance of the Work, the Contractor shall undertake in good faith affirmative action measures designed to eliminate any discriminatory religious creed, national origin, age, sexual orientation, or sex and to eliminate and remedy any effects of such discrimination in the past. Such affirmative action shall entail positive and aggressive measures to ensure equal opportunity in the areas of hiring, upgrading, demotion or transfer, recruitment, layoff or termination, rate of compensation, and in-service or apprenticeship training programs. This affirmative action shall include all action required to guarantee equal employment opportunity for all persons, regardless of race, color, religious creed, national origin, age, sexual orientation, or sex. A purpose of this provision is to fully ensure possible an adequate supply of skilled tradesmen for future public construction projects.

D. If the Contractor shall use any subcontractor on any work performed under this Contract, the Contractor shall take affirmative steps to negotiate with qualified minority and women subcontractors. These affirmative steps shall cover both pre-bid and post-bid periods. It shall include notification to the State Office of Minority and Women Business Assistance or its designee, while bids are in preparation, of all products, work, or services for which the Contractor intends to negotiate bids. In all solicitations either by competitive bidding or negotiation made by the Contractor either for work to be performed under a subcontract or for the procurement of materials or equipment, each potential subcontractor or supplier shall be notified in writing by the Contractor of the Contractor’s obligations under this Contract relative to non-discrimination and affirmative action.

E. As part of its obligation of remedial action under this Article, the Contractor shall maintain on this project not less than the percent ratio set forth in the Owner – Contractor Agreement of minority employee worker hours to total worker hours in each job category including but not limited to bricklayers, carpenters, cement masons, electricians, ironworkers, operating engineers, and those “classes of work” enumerated in MGL, c. 149, Sec. 44F.

F. In the hiring of minority journeypersons, apprentices, trainees and advanced trainees, the Contractor shall rely on referrals from a multi-employer affirmative action program approved by the Commission, traditional referral methods utilized by the construction industry, and referrals from agencies, not more than three in number at any one time, designated by the Liaison Committee or the Awarding Authority.

3. Liaison Committee, Reports and Records.

A. At the option of the Awarding Authority, there may be established for the term of this Contract a body to be known as the Liaison Committee. The Liaison Committee shall be composed of one

representative each from the Awarding Authority, the Commission and such other representatives as may be designated by the Commission in conjunction with the Awarding Authority. The Contractor (or his agent, if any, designated by him as the on-site equal employment opportunity officer) shall recognize the Liaison Committee as an affirmative action body, and shall establish a continuing working relationship with the Liaison Committee, consulting with the Liaison Committee on all matters related to minority recruitment, referral, employment and training.

B. The Contractor shall prepare projected staffing tables on a quarterly basis. These shall be broken down into projections, by week, of workers required in each trade. Copies shall be furnished one week in advance of the commencement of the period covered, and when updated, to the Awarding Authority and Liaison Committee. The Contractor shall prepare weekly reports in a form approved by the Awarding Authority of hours worked in each trade by each employee, identified as minority or non-minority. Copies of these shall be provided at the end of each such week to the Awarding Authority and to the Liaison Committee.

C. Records of employment referral orders, prepared by the Contractor, shall be made available to the Awarding Authority and to the Liaison Committee on request.

D. A designee of the Awarding Authority and a designee of the Liaison Committee shall each have right to access to the Site.

E. The Contractor shall comply with the provisions of MGL, c. 151B as amended, of the Massachusetts General Laws, both of which are herein incorporated by reference and made a part of this Contract.

F. The Contractor shall provide all information and reports required by the Awarding Authority or the Commission on forms and in accordance with instructions issued by either of them and will permit access to its facilities and any books, records, accounts, and other sources of information which may be determined by the Awarding Authority or the Commission to affect the employment of personnel. This provision shall apply only to information pertinent to the Owner's supplementary affirmative action Contract requirements. Where information required is in the exclusive possession of another who fails or refuses to furnish this information, the Contractor shall so certify to the Awarding Authority or the Commission as appropriate and shall set forth what efforts he has made to obtain the information.

4. Sanctions.

A. Whenever the Awarding Authority, the Commission, or the Liaison Committee believes the Contractor, or any Subcontractor may not be operating in compliance with the terms of this Article, the Commission shall directly, or through its designated agent, conduct an appropriate investigation, and may confer with the parties to determine if such Contractor is operating in compliance with the terms of this Article. If the Commission or its agent finds the Contractor or any Subcontractor not in compliance, it may make a preliminary report on non-compliance and notify such Contractor in writing of such steps as will in the judgment of the Commission or its agent bring such Contractor into compliance. If such Contractor fails or refuses to fully perform such steps, the Commission may make a final report of non-compliance and recommend to the Awarding Authority the imposition of one or more of the sanctions listed below. If, however, the Commission believes the Contractor or any Subcontractor has taken or is taking every possible measure to achieve compliance, it shall not make a final report of non-compliance. Within fourteen days of the receipt of the recommendations of the Commission, the Awarding Authority shall move to impose one or more of the following sanctions, as it may deem appropriate to attain full and effective enforcement:

(1) The recovery by the Awarding Authority from the Contractor of 1/100 of 1% of the Contract award price or \$1,000 whichever sum is greater, in the nature of liquidated damages or, if a Subcontractor is in non-compliance, the recovery by the Awarding Authority from the Contractor, to be assessed by the Contractor as a back charge against the subcontractor, of 1/10 of 1% of the sub-contract price, or \$400 whichever sum is greater, in the nature of liquidated damages, for each week that such party fails or refuses to comply.

(2) The suspension of any payment or part thereof due under the Contract until such time as the Contractor or any subcontractor can demonstrate his compliance with the terms of the Contract.

- (3) The termination, or cancellation, of the Contract, in whole or in part, unless the Contractor or any Subcontractor can demonstrate within a specified times his compliance with the terms of the contract.
- (4) The denial to the Contractor or any subcontractor of the right to participate in any future contracts awarded by the Awarding Authority for a period of up to three years.

B. If any time after the imposition of one or more of the above sanctions a Contractor can demonstrate that it follows this Article, the Contractor may request the Awarding Authority, in consultation with the Commission, to suspend the sanctions conditionally, pending a final determination by the Commission as to whether the Contractor complies. Upon final determination of the Commission, the Awarding Authority, based on the recommendation of the Commission, shall either lift the sanctions or reimpose them.

C. Sanctions recommended by the Commission and enumerated under Section 4 above shall not be imposed by the Awarding Authority except after an adjudicatory proceeding, as that term is used in MGL, c. 30A, has been conducted. No investigation by the Commission or its agent shall be initiated without prior notice to the Contractor.

D. Notwithstanding the provisions of 4A-4C above, if the Awarding Authority determines after investigation that the Contractor or any Subcontractor is not in compliance with the terms of this Article, it may suspend any payment or portion thereof due under the Contract until the contractor demonstrates to the satisfaction of the Awarding Authority compliance with the terms of this Article. This temporary suspension of payments by the Awarding Authority is separate from the sanctions set forth in Section 4A-4C of this Article above, which are determined by MCAD and recommend to the Awarding Authority. Payment may be suspended only after the Contractor and any other interested party shall have been given the opportunity to present evidence in support of its position at an informal hearing held by the Awarding Authority, and the Awarding Authority has concluded upon review of all the evidence that such penalty is justified. Payment shall not be suspended if the Awarding Authority finds that the Contractor made its best efforts to comply with this Article, or that some other justifiable reason exists for waiving the provisions of this Article in whole or in part.

APPENDIX B to General Conditions of the Contract

The following provisions from Article XIII of the General Conditions of the Contract where DCR is the Awarding Authority.

GOALS FOR PARTICIPATION BY MINORITY BUSINESS ENTERPRISES AND WOMEN BUSINESS ENTERPRISES (EXECUTIVE ORDER 390, MGL, c. 7, s. 40N)

1. Goals.

A. The goals for minority business enterprise and women business enterprise participation established for this Contracts are as set forth in the Owner – Contractor Agreement.

B. The Contractor and all Subcontractors, sub-subcontractors, and materials suppliers shall comply with all the terms and conditions of this Article, which include the provisions pertaining to M/WBE participation set forth in the Owner – Contractor Agreement to meet the M/WBE participation goals established for this Contract.

2. M/WBE Participation Credit.

A. If the Contractor is itself an MBE or WBE, M/WBE participation credit will be given in an amount equal to the entire Contract Price. If the Contractor is not an MBE or WBE then M/WBE participation credit will be given for the value of the Work that is performed by each MBE or WBE subcontractor or subcontractor.

B. If the Contractor is a joint venture with one or more M/WBE joint venturers, M/WBE participation credit shall be given to the joint venture as follows:

(1) If the joint venture is certified by SOMBWA as an MBE or WBE, M/WBE participation credit shall be given in an amount equal to the Contract Price.

(2) If the joint venture is not certified as an MBE or WBE by SOMBWA, M/WBE participation credit shall be given to the joint venture for the value of the Work that is performed by the M/WBE joint ventures(s), and for the value of the Work that is performed by each MBE or WBE subcontractor or sub-subcontractor.

C. MBE participation credit shall be given for the work performed by MBEs only, and WBE participation credit shall be given for the work performed by WBEs only. MBE participation may not be substituted for WBE participation, nor may WBE participation be substituted for MBE participation.

3. Establishing M/WBE Status.

A. A minority-owned business shall be considered an MBE only if it has been certified as a minority business enterprise by the State Office of Minority and Women Business Assistance (“SOMWBE”).

B. A woman-owned business shall be considered a WBE only if it has been certified as a woman business enterprise by SOMWBA.

C. Certification as a disadvantaged business enterprise (“DBE”), certification as an M/WBE by any agency other than SOMWBA, or submission of an application to SOMWBA for certification as an M/WBE shall not confer M/WBE status on a firm for the purposes of this Contract.

4. Subcontracts with M/WBEs.

Within thirty (30) days after the award of this Contract, the Contractor shall (i) execute a subcontract with each M/WBE Subcontractor which has executed a Letter of Intent approved by the Awarding Authority, (ii) cause its Subcontractors to execute a sub-subcontract with each M/WBE sub-subcontractor, and (iii) furnish the Awarding Authority with a signed copy of each such subcontract and sub-subcontract.

5. Performance of Contract Work by M/WBEs.

A. The Contractor shall not perform with its own organization or subcontract or assign to any other firm work designated to be performed by any W/MBE in the Letters of Intent or Schedule of M/WBE Participation without the prior Approval of the Awarding Authority, nor shall any M/WBE assign or subcontract to any other firm or permit any other firm to perform any of its M/WBE Work without the prior Approval of the Awarding Authority. Any such unapproved assignment, subcontracting, sub-subcontracting, or performances of M/WBE Work by others shall be a change in the M/WBE Work for the purposes of this Contract. The Awarding Authority WILL NOT APPLY TO THE M/WBE PARTICIPATION GOALS(S) ANY SUMS ATTRIBUTABLE TO SUCH UNAPPROVED ASSIGNMENTS, SUB-CONTRACTS, SUB-SUBCONTRACTS, OR PERFORMANCE OF M/WBE WORK BY OTHERS.

B. The Contractor shall be responsible for monitoring the performance of M/WBE Work to ensure that each scheduled M/WBE performs its own M/WBE Work with its own workforce.

C. The Contractor and each M/WBE shall provide the Awarding Authority with all information and documentation that the Awarding Authority determines is necessary to ascertain whether an M/WBE has performed its own M/WBE Work. At the discretion of the Awarding Authority, failure to submit such documentation to the Awarding Authority shall establish conclusively for the purpose of giving M/WBE participation credit under this Contract that such M/WBE did not perform such work.

6. Notification of Changes in M/WBE Work.

A. If any time during the performance of the Contract the Contractor determines or has reason to believe that a scheduled M/WMBE is unable to unwilling to perform its M/WBE Work, or that there has been or will be a change in any M/WMBE Work, or that the Contractor will be unable to meet the M/WBE participation goal(s) for this Contract for any reason, the Contractor shall immediately notify the Awarding Authority Contract Compliance Office in writing of such circumstances.

B. Any notice of a change in M/WBE Work pursuant to subparagraph “A: above shall include a revised Schedule of M/WBE Participation, and additional or amended Letters of Intent and subcontracts.

7. Actions Required if there is a Reduction in M/WBE Participation.

A. In the event there is a change or reduction in any M/WBE Work which will result in the Contractor failing to meet the M/WBE participation goal(s) for this Contract, other than a reduction in

M/WBE Work resulting from a Change Order initiated by the Awarding Authority, then the Contractor shall immediately undertake a diligent, good faith effort to make up the shortfall in M/WBE participation as follows:

(1) The Contractor shall identify all items of the Work remaining to be performed under the Contract that may be made available for subcontracting to W/MBEs. The Contractor shall send a list of such items of work to the Awarding Authority, together with a list of the remaining items of the Work that was not made available to M/WBEs and the reason for not making such work available for subcontracting to M/WBEs.

(2) The Contractor shall send written notices soliciting proposals to perform the items of the Work that may be made available for subcontracting to W/MBEs to all W/MBEs qualified to perform such work. The Contractor shall advise the Awarding Authority of (i) each W/MBE solicited, and (ii) each W/MBE listed in the SOMWBA directory under the applicable trade category who was not solicited and the reasons, therefore. The Contractor shall also advise the Awarding Authority of the dates notices were mailed and provide a copy of the written notice(s) sent.

(3) The Contractor shall make reasonable efforts to follow up the written notices sent to M/WBEs with telephone calls or personal visits to determine with certainty whether the M/WBEs were interested in performing the work. Phone logs or other documentation must be submitted to the Awarding Authority evidencing this effort.

(4) The Contractor shall make reasonable efforts to assist M/WBEs that need assistance in obtaining insurance, bonds, or lines of credit to perform work under the Contract and shall provide the Awarding Authority with evidence that such efforts were made.

(5) The Contractor shall provide the Awarding Authority with a statement of the response received from each M/WBE solicited, including the reason for rejecting any M/WBE who submitted a proposal.

(6) The Contractor shall take any additional measures reasonably requested by the Awarding Authority to meet the M/WBE participation goal(s) established for this Contract, including, without limitation, placing advertisements in appropriate media and trade association publications announcing the Contractor's interest in obtaining proposals from M/WBEs, and/or sending written notification to M/WBE economic development assistance agencies, trade groups and other organizations notifying them of the project and of the work available to be subcontracted by the Contractor to M/WBEs.

B. If the Contractor is unable to meet the M/WBE participation goals for this Contract after complying fully with each of the requirements of paragraph "A" above, and the Contractor is otherwise in full compliance with the terms of this Article, the Awarding Authority may reduce the M/WBE participation goals for this Contract to the extent that such goals cannot be achieved.

8. Suspension of Payment and/or Performance for Noncompliance.

A. If at any time during the performance of this Contract, the Awarding Authority determines or has reason to believe that (1) there has been a change or reduction in any M/WBE Work which will result in the Contractor failing to meet the M/WBE participation goal(s) for this Contract, other than a reduction in M/WBE Work resulting from a change in the Contract work ordered by the Awarding Authority, and (2) the Contractor has failed to comply fully with all of the terms and conditions of paragraphs 1 through 7 above, the Awarding Authority may:

(1) suspend payment to the Contractor of an amount equal to the value of the work which was to have been performed by an M/WBE pursuant to the Contractor's Schedule of M/WBE Participation, but which was not so

performed, to ensure that sufficient Contract funds will be available if liquidated damages are assessed pursuant to paragraph 9 and/or

(2) suspend the Contractor's performance of this Contract in whole or in part.

B. The Awarding Authority shall give the Contractor prompt written notice of any action taken pursuant to paragraph A above and shall give the Contractor and any other interested party, including any M/WBEs, an opportunity to present evidence to the Awarding Authority that the Contractor is in compliance with the requirements of this Article, or that there is some justifiable reason for waiving the requirements of this Article in

whole, or in part. The Awarding Authority may invite SOMWBA and the Massachusetts Commission Against Discrimination to participate in any proceedings undertaken pursuant to this paragraph.

C. Upon a showing that the Contractor is in full compliance with the requirements of this Article, or that the Contractor has met or will meet the M/WBE participation goals for this Contract, the Awarding Authority shall release any funds withheld pursuant to clause A(1) above and lift any suspension of the Contractor's performance under clause A(2) above.

9. Liquidated Damages: Termination.

A. If payment by the Awarding Authority or performance by the Contractor is suspended by the Awarding Authority as provided in paragraph 8 above, the Awarding Authority shall have the following rights and remedies if the Contractor thereafter fails to take all action necessary to bring the Contractor into full compliance with the requirements of this Article, or if full compliance is no longer possible because the default of the Contractor is no longer susceptible to cure, if the Contractor fails to take such other action as may be required by the Awarding Authority to meet the M/WBE participation goals set forth in this Contract:

(1) the Awarding Authority may terminate this Contract, and/or

(2) the Awarding Authority may retain from final payment to the Contractor, as liquidated damages, an amount equal to the difference between (x) the total of the M/WBE participation goals set forth in this Contract, and (y) the amount of M/WBE participation credit earned by the Contractor for M/WBE Work performed under this Contract as determined by the Awarding Authority, the parties agreeing that the damages for failure to meet the M/WBE participation goals are difficult to determine and that the foregoing amount to be retained by the Awarding Authority represents the parties' best estimate of such damages. Any liquidated damages will be assessed separately for MBE and WBE participation.

B. Before exercising its rights and remedies hereunder, the Awarding Authority may, but the Awarding Authority shall not be obligated to, give the Contractor and any other interested party another opportunity to present evidence to the Awarding Authority that the Contractor is in compliance with the requirements of this Article or that there is some justifiable reason for waiving the requirements of this Article in whole or in part. The Awarding Authority may invite SOMWBA and the Massachusetts Commission Against Discrimination to participate in any proceedings undertaken hereunder.

10. Reporting Requirements.

The Contractor shall submit to the Awarding Authority all information or documentation that is necessary in the judgment of the Awarding Authority to ascertain whether the Contractor has complied with any of the provisions of this Article.

11. Awarding Authority's Right to Waive Provisions of this Article in Whole or in Part.

The Awarding Authority reserves the right to waive any provision or requirement of this Article if the Awarding Authority determines that such waiver is justified and in the public interest. No such waiver shall be effective unless in writing and signed by a representative of the Awarding Authority's Compliance Office or the office of its General Counsel. No other action or inaction by the Awarding Authority shall be construed as a waiver of any provision of this Article.

**COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF CONSERVATION AND RECREATION**

**SPECIAL GOOD FAITH REQUIREMENTS FOR PARTICIPATION BY VETERAN OWNED
BUSINESS ENTERPRISES**

**(Implementing Executive Order No. 546, Establishing the Veteran Owned Business
Enterprise Program).**

BIDDER'S INSTRUCTIONS

THE APPARENT LOW BIDDER'S COMPLIANCE WITH THE REQUIREMENTS OF THIS SECTION IS A PREREQUISITE FOR RECEIVING THE AWARD OF THE CONTRACT.

1) Participation Goals and Program Operation

In order to be an eligible VOB for the participation goals of this Contract, the business enterprise must be listed as a veteran-owned business within the VetBiz database, located at www.VetBiz.gov, at the time of the bid submission deadline. Only a VOB identified as a veteran-owned small business via the VetBiz database shall count towards meeting the Program participation goal.

The Contractor must demonstrate that VOBs are eligible for the following participation goals via its listing as a veteran-owned small business within the VetBiz database, located at www.VetBiz.gov, at the time said VOB seeks to participate in business provided under this Contract; provided, that it shall also be the responsibility of the Awarding Authority to verify the status of the SDVOB via said VetBiz database prior to the awarding of the Contract.

a) Design Services Contracts – In furtherance of the goals and objectives of the program, commencing July 1, 2013 until such time as the Secretary for Administration and Finance has adopted a new participation goal, the participation goal, which shall be expressed in the form of a benchmark for each design services contract, shall be three (3) percent; provided, that said participation goal may be met by the veteran-owned business enterprise performing as either a general or prime contractor, a subcontractor, or both; provided further, that the awarding agency shall verify the status of business enterprise participation on a design services contract.

b) Public Construction Contracts – In furtherance of the goals and objectives of the Program, commencing July 1, 2013 until such time as the Secretary of Administration and Finance has adopted a new participation goal, the participation goal, which shall be expressed in the form of a benchmark for each public construction contract, shall be three (3) percent; provided, that said participation goal may be met by the veteran-owned business enterprise performing as either a general or prime contractor, a subcontractor, or both; provided further, that the awarding agency shall verify the status of a service veteran-owned business enterprise prior to said business enterprise participation on a public construction contract.

2) Goal Reduction/Waiver

- A) The Awarding Authority reserves the right to reduce or waive the SDVOBE participation goals established for this Contract upon written request made by a Bidder using the VOB E Waiver Request Form provided by the Awarding Authority.
- B) If filed Sub-Bids are solicited for this Contract, requests from prospective general Bidders to reduce or waive the VOB E participation goals for this Contract should be received by the Awarding Authority no later than four (4) working days after the list of filed Sub- Bidders is mailed by the Awarding Authority to persons who have taken out plans for the Contract, using the VOB E Waiver Request Form provided by the Awarding Authority.
- C) If there are no filed sub-Bids solicited for this Contract, requests to reduce or waive the SDVOBE participation goals for this Contract should be received by the Awarding Authority no later than five (5) working days before the date set for the receipt of general Bids. **THE AWARDING AUTHORITY RESERVES THE RIGHT TO REJECT ANY REQUEST TO REDUCE OR WAIVE THE VOB E PARTICIPATION GOALS FOR THIS CONTRACT THAT IS RECEIVED AFTER THESE DEADLINES.** Such written request must demonstrate to the satisfaction of the Awarding Authority that it is not feasible for a non- VOB E or non- VOB E general Bidder to meet the goals established for this Contract based upon any or all the following:
- a) actual VOB E availability.
 - b) the geographic location of the project to the extent related to SDVOBE availability.
 - c) the scope of the work.
 - d) the percentage of work available for subcontracting to VOB Es; and/or
 - e) other relevant factors, including a **documented** inability by the prospective Bidder to obtain commitments from VOB E subcontractors sufficient to meet the VOB E goals after having made a diligent, good faith effort to do so. All the foregoing documentation shall accompany the completed Waiver Request Form. Such documentation shall include, at a minimum, the following:
 - A list of all items of work under the Contract that the Bidder made available for subcontracting to VOB Es. The Bidder shall identify all items of work, other than work to be performed by filed sub-Bidders, that the Bidder did not make so available and shall state the reasons for not making such work available for subcontracting to VOB Es. The Bidder shall also demonstrate that, where commercially reasonable, subcontracts were divided into units capable of being performed by VOB Es.
 - Evidence that the Bidder sent written notices soliciting Bids or proposals to perform the items of work made available by the Bidder for subcontracting to all available VOB Es qualified to perform such work. The Bidder shall identify each VOB E solicited, state the dates that notices were mailed, provide a copy of the written notice(s) sent, and provide a copy of any statement or response received from each VOB E solicited, including the reason for rejecting and VOB E who submitted a bid or proposal.
 - Evidence that the Bidder made reasonable efforts to follow up on the written

notices sent to VOBES with telephone calls or personal visits to determine with certainty whether the VOBES were interested in performing the work. Phone logs or other documentation must be submitted.

- Evidence of efforts made to assist VOBES that needed assistance in obtaining bonding or insurance, or lines of credit with suppliers if the inability of SDVOBE to obtain bonding, insurance, or lines of credit is the reason given for the Bidder's inability to meet the VOBES goals.

D) The Bidder may also submit any other information supporting its request for a waiver or reduction in the VOBES participation goals, including without limitation evidence that the Bidder placed advertisements in appropriate media and trade association publications announcing the Bidder's interest in obtaining bids or proposals from VOBES, and/or sent written notification to VOBES economic development assistance agencies, trade groups and other organizations notifying them of the Contract and the work to be subcontracted by the Bidder to VOBES. The Bidder shall also submit any other information reasonably requested by the Awarding Authority to show that the Bidder has taken all actions that could reasonably be expected to achieve the VOBES participation goals.

- 3) No later than five (5) working days after the opening of general Bids, the apparent low Bidder shall submit the following documents to the Awarding Authority's Contract Officer:
 - (i) a completed Schedule for Participation by VOBES ("Schedule for Participation") in the form provided by the Awarding Authority showing VOBES participation in amounts equal to or exceeding the VOBES participation goals for this Contract; and
 - (ii) a completed Letter of Intent in the form provided by the Awarding Authority for each SDVOBE listed in the Schedule for Participation.
- 4) Each Letter of Intent shall identify and describe the work to be performed by the named VOBES (the "VOBES Work") with enough specificity to permit the Awarding Authority to identify the items of contract work that the VOBES will perform for VOBES participation credit. The Awarding Authority reserves the right to reject any Letter of Intent if the price to be paid for the VOBES Work does not bear a reasonable relationship to the value of such work under the Contract as determined by the Awarding Authority.
- 5) Within five (5) working days after receipt of the Schedule for VOBES Participation and Letters of Intent, the Awarding Authority shall review and either approve or disapprove the apparent low Bidder's submissions. If the apparent low Bidder has not submitted an appropriate Schedule for VOBES Participation and appropriate Letters of Intent establishing that the VOBES participation goal for the project will be met, the apparent low Bidder will be considered ineligible for Award of the Contract and the Awarding Authority will Award the Contract to the second lowest Bidder, subject to said Bidder's compliance with these conditions.
- 6) The Contractor is required to submit to the Awarding Authority signed subcontracts with all subcontractors prior to the commencement of work to be performed under these contracts, and/or a purchase order or invoice from each material supplier and/or manufacturer listed on the Schedule for VOBES Participation within thirty (30) days of the issuance of the Notice to Proceed by the Awarding Authority.
- 7) A filed Sub-Bidder is not required to submit a Schedule for VOBES Participation with its Bid. A filed Sub-Bidder may, at its option, submit a Letter of Intent with its Bid if it is a VOBES. If a filed sub-Bidder intends to sub-subcontract work to a VOBES, and the filed sub-Bidder wishes

that sub-subcontract to be credited toward the participation goals for this Contract, the filed sub-Bidder should submit a Letter of Intent from that VOB E with its Bid. A filed sub-Bidder can subcontract out up to 20% of its work to VOB Es, unless such work is designated as sub-subcontract Paragraph E work in the Bid Documents, in which case the 20% cap does not apply.

This is a:

☐ **Design Contract**

☐ **Construction contract**

The goal for this contract is Three (3 %) percent of the value of the contract unless waived in part or whole by DCR in writing.

**COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF CONSERVATION AND RECREATION**

**SPECIAL GOOD FAITH REQUIREMENTS FOR PARTICIPATION BY VETERAN OWNED
BUSINESS ENTERPRISES
(Implementing Executive Order No. 638, Promoting the Equitable Participation of Women
and Underrepresented Groups in Construction)**

BIDDER'S INSTRUCTIONS

THE APPARENT LOW BIDDER'S COMPLIANCE WITH THE REQUIREMENTS OF THIS
SECTION IS A PREREQUISITE FOR RECEIVING THE AWARD OF THE CONTRACT.

Pursuant to Executive Order No. 638: Promoting the Equitable Participation of Women and Underrepresented Groups in Construction ("EO No. 638"), bidders shall include in their bid submission a Plan of the how they plan to:

1. encourage the use of registered apprentices for the performance of the Work.
2. develop strong workforce equity practices.
3. partner with worker-serving organizations with a track record of reaching women and underrepresented groups; and
4. provide support services, including childcare, to facilitate the participation of women and underrepresented groups on the Work to be performed under the contract.

In addition, bidders are hereby notified that the contract shall include, and it shall be a requirement that any subcontract shall include, the following data collection and reporting obligations, at appropriate intervals, required by EO No. 638:

1. workforce needs, which may include the expected number of jobs, job hours, and job hours by occupation.
2. workforce demographics, consistent with but not limited to the requirements of M.G.L. c. 7C, §6 and M.G.L. c. 149, §44A, which may include race, gender, zip code, and other workforce characteristics.
3. benefits and supportive services provided to workers.
4. Hours worked by all employees, including women and people of color, by trade and position; and
5. Apprenticeship participation and pre-apprenticeship program completion statistics.

The Contractor shall submit to the Awarding Authority all information or documentation that is necessary in the judgment of the Awarding Authority to ascertain whether the Contractor has complied with any of the provisions of this Article.

APPENDIX C to the General Conditions of the Contract

INDEX OF THE COMMONLY USED FORMS

(Forms used during bidding are in Attachment B to the Instructions to Bidders)

Contractor's Weekly Workforce Report

Minorities/Women in Contractor's Weekly Workforce Report

Weekly Payroll Report Form and Statement of Compliance

Certification of Payment by Contractor to MBE/WBE and Instructions

Certificate of Completion by Minority/Women Business Enterprise

Certificate of Final Inspection, Release and Acceptance – E-2

CONTRACTOR'S WEEKLY WORKFORCE REPORT
THE COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF CONSERVATION AND RECREATION

DCR Project No. _____ Project Name _____ Project Location _____

Name of General Contractor _____ Minority Goal % _____ Women Goal %

Name of Contractor Filing Report _____ Address _____

Week Ending _____ Report No. _____ Date Work Began _____ Date work completed _____

NOTE: **Min. = Minority** **Wom. = Women** ☐ Check here if this is a final report

Job Category	Number of Employees	Number of Employees Who Are		Total Weekly Workforce Hours	Total Weekly Workforce Hours		Weekly % Workforce Hours		Total Workforce Hours To Date	Total Workforce Hours to Date		% Of Workforce Hours to Date	
		Min.	Wom.		Min.	Wom.	Min.	Wom.		Min.	Wom.	Min.	Wom.
TOTALS:													

Mail with Weekly Payroll report to the assigned Project Manager at:

Department of Conservation & Recreation
Project Manager Name
 10 Park Plaza
 Boston, MA 02116

The undersigned hereby certifies under pains and penalties of perjury that the above information is true and accurate.

Authorized Signature _____ Date _____

Print Name _____ Title _____

Telephone No. _____ FAX No. _____

DCR Part III General Conditions of the Contract

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MINORITIES/WOMEN IN CONTRACTOR'S WEEKLY WORKFORCE REPORT
THE COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF CONSERVATION AND RECREATION

DCR Project No. _____ Project Name _____

Name of General Contractor _____

Project Location _____

Name of Contractor Filing Report _____

Address _____

Week Ending _____ Report No. _____

JOB CATEGORY	NAME OF EMPLOYEE	MINORITY GROUP	GENDER

In contract Article XII, "Minority" refers to: Asian-Americans, Blacks, Western Hemisphere Hispanics, Native Americans, and Cape Verdeans

WEEKLY PAYROLL REPORT FORM
THE COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF CONSERVATION AND RECREATION

DCR Project No. _____ Project Name _____

Project Location _____

Name of General Contractor _____

Name of Contractor Filing Report _____

Address _____

Week Ending _____ Date Work Began _____ Date work completed _____

Report No. _____ ☐ Check here if this is a final report

Employee Name & Address	Work Classification	Hours Worked							(A)	(B)	Employer Contributions			(F)	(G)
		S	M	T	W	T	F	S	Total Hours	Hourly Base Wage	(C) Health & Welfare	(D) Pension	(E) Supp. unemployed	[B+C+D+E] Hourly Total Wage (prev.)	[A*F] Weekly Total Amount

NOTE: Every contractor and subcontractor are required to submit a copy of their weekly payroll records to DCR. The undersigned states under the pains & penalties of perjury that the above provided and attached information is a true and accurate record of each person employed on the project and the hours worked and wages paid to each such employee, including payments to the referenced benefits. M.G.L. c. 149 §27B.

Authorized signature _____ Print Name _____

Print Title _____

Mail to: Department of Conservation and Recreation
Project Manager Name
 10 Park Plaza
 Suite 6620
 Boston, MA 02116

WEEKLY PAYROLL RECORDS REPORT & STATEMENT OF COMPLIANCE

In accordance with Massachusetts General Law c. 149, §27B, a true and accurate record must be kept of all persons employed on the public works construction project for which the enclosed rates have been provided. The ***Weekly Payroll Report Form*** includes all the information required to be kept by law. Every contractor or subcontractor is required to keep these records and preserve them for a period of three years from the date of completion of the project.

In addition, every contractor and subcontractor are required to submit a copy of their weekly payroll records to the awarding authority. This is required to be done on a weekly basis. Once collected, the awarding authority is also required to preserve those records for three years.

In addition, each such contractor, subcontractor, or public body shall furnish **to the Executive Office of Labor**, within fifteen days after completion of its portion of the work, a statement, executed by the contractor, subcontractor or public body who supervises the payment of wages, in the following form:

STATEMENT OF COMPLIANCE

Date: _____ / _____ / _____

I, _____, _____
(Name of signatory party) (Title)

do hereby state:

That I pay or supervise the payment of the persons employed by

_____ on the _____
(Contractor, subcontractor, or public body) (Building or project)

and that all mechanics and apprentices, teamsters, chauffeurs, and laborers employed on said project have been paid in accordance with wages determined under the provisions of sections twenty-six and twenty-seven of chapter one hundred and forty-nine of the General Laws.

Signature _____

Title _____

CERTIFICATE OF PAYMENT
 BY CONTRACTOR/DESIGNER TO MINORITY, WOMEN BUSINESS
 & VETERAN OWNED BUSINESS ENTERPRISES

TO: Supplier Diversity Reports
 Department of Conservation and
 Recreation ,10 Park Plaza
 Suite 6620,Boston,MA 02116

Reporting Period: Fiscal Year 20__

RE: Project:
 Project Number:

Contract Start Date:

The undersigned hereby certifies under the pains and penalties of perjury that the vendor named below has made the following payments to the named Minority, Women Business and Veteran Owned Enterprises for work performed on the above project:

Firm Name of General Contractor:

Authorized Signature

Date

Print Name

Print Title

Phone Number

Email address

Work performed/payments made (use additional pages if needed):

	Firm Name	Work Performed	Subcontract Amount	Payments This Quarter	FY Payments to date (This fiscal year)	Cumulative Payments (Total payments over the life of the contract)
<input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> VOB			\$	\$	\$	\$
<input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> VOB			\$	\$	\$	\$
<input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> VOB			\$	\$	\$	\$
<input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> VOB			\$	\$	\$	\$
<input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> VOB			\$	\$	\$	\$
<input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> VOB			\$	\$	\$	\$
<input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> VOB			\$	\$	\$	\$

* MBE, WBE and VOB payment reports are required for each quarter of the fiscal year for each of your DCR projects. Reports are to cover the following three-month periods: 1st quarter, July 1st – September 30th; 2nd quarter, October 1st – December 31st; 3rd quarter, January 1st – March 31st; 4th quarter, April 1st – June 30th. Reports must be submitted within 10 business days of your receipt of this form.

NOTICE: *Intentionally submitting false information in this document may subject the contractor/ designer to criminal prosecution and/ or debarment from public contracting.*

INSTRUCTIONS FOR COMPLETING CERTIFICATE OF PAYMENT

As part of its effort to ensure reliable, up-to-date information concerning the actual payments made to certified MBE, WBE and VOB subcontractors on all DCR projects, we have prepared these instructions to assist you in completing the enclosed form. **PLEASE READ THESE INSTRUCTIONS CAREFULLY. DCR WILL RETURN ANY CERTIFICATION OF PAYMENT THAT IS INCOMPLETE OR INACCURATE.**

PLEASE NOTE: IF THIS PROJECT IS COMPLETE, ON HOLD, OR YOUR FIRM PREVIOUSLY SUBMITTED A **FINAL** CERTIFICATION OF M/WBE/VOBE PAYMENT FOR THIS PROJECT, PLEASE SO, INDICATE ON THE FORM AND RETURN IT TO: SUPPLIER DIVERSITY REPORTS, DEPARTMENT OF CONSERVATION AND RECREATION, 10 Park Plaza, Suite 6620
Boston, MA 02116

PLEASE INCLUDE THE FOLLOWING INFORMATION IN THE DESIGNATED SECTIONS OF THE FORM:

FIRM NAME: Include the M/WBE/VOBEs listed on the project's approved Schedule for Participation and any additional M/WBE/VOBEs that worked on the project. Be sure to check M/WBE/VOBE category for which they are certified. Note that any change in M/WBE/VOBEs participation used to meet the project goals must be pre-approved by the Project Manager or Engineer responsible for this project and a revised M/WBE/VOBE Schedule of Participation will be required. Contact the DCR Supplier Diversity coordinator immediately if you anticipate or have any changes in M/WBE/VOBE participation on this project.

WORK PERFORMED: Include a brief description of the work performed by each subcontractor listed. The description should match the M/WBE/VOBE Letter of Intent and approved Schedule of Participation. M/WBE/VOBEs must be certified in the category of work performed on this project for firms used to meet the project M/WBE/VOBE goals.

SUBCONTRACT AMOUNT: Include the contract or subcontract amounts listed on the M/WBE/VOBE Letters of Intent and approved Schedule of Participation. If the value of an MBE/WBE/VOBE contract or subcontract has decreased or increased for any reason, you must contact the Project Manager or Engineer responsible for this project immediately. If additional M/WBE/VOBE firms not listed on the Schedule for Participation worked on this project list the amount of their subcontracts.

PAYMENTS THIS QUARTER: Include the amount you paid the M/WBE/VOBE subcontractor, either directly or indirectly, for work performed on this project during the three-month period covered by this Certification of Payment. If the amount paid was zero, please indicate that. Do not include payments from previous periods or estimated future payments in this column. Please note that you may be required to submit copies of cancelled checks to verify the amounts reported for firms used to meet the project's M/WBE/VOBE goals.

FY PAYMENTS TO DATE: Include the total amount you paid the M/WBE/VOBE subcontractor, either directly or indirectly, for work performed on this project for all quarters in **this fiscal year**. To ensure accurate reporting, please review the prior Certifications of Payments previously submitted for this project. Where necessary, correct any earlier mathematical or reporting errors and submit revised Certifications of Payment.

CUMULATIVE PAYMENTS: Include the total amount you paid the M/WBE/VOBE subcontractor, either directly or indirectly, for work performed over the entire life of this project (all quarters).

IF YOU HAVE ANY QUESTIONS, CONTACT DCR Supplier Diversity coordinator at 617.626.4925

CERTIFICATE OF COMPLETION
BY MINORITY/WOMEN BUSINESS/VETERAN OWNED BUSINESS ENTERPRISE
DEPARTMENT OF CONSERVATION AND RECREATION

TO: Supplier Diversity Reports
Department of Conservation and
Recreation 10 Park Plaza
Suite 6620, Boston, MA 02116

Reporting Period: Fiscal Year

RE: Project:
Project Number:
General Contractor:

Contract Start Date:

The undersigned hereby certifies under the pains and penalties of perjury that the vendor named below has received the payments to the named Minority, Women Business and Veteran Owned Enterprises for work performed on the above project:

Firm Name of Subcontractor:

Print Name

Print Title

Phone Number

Email address

DESCRIPTION OF WORK (AS SHOWN IN LETTER OF INTENT)

BRIEF DESCRIPTION OF ACTIVITY: (Note "Labor Only," "Material Only," "Material and Labor," "Complete")

Original Subcontract Amount \$ _____

Adjusted Subcontract Amount (Change Orders, etc.) \$ _____

Total Payments Received to Date from Prime Contractor \$ _____

Balance Due from Prime Contractor \$ _____

If the completed activity is different from that listed on the Letter of Intent, please explain: _____

(If more space is needed, continue back of sheet)

The individuals signing below hereby certify under the pains and penalties of perjury that all work listed on the Contract Letter of Intent (or approved changes thereto as explained above) was completed by the MBE/WBE/VOBE firm on _____, 20____ and the above amounts listed for these services are true and accurate.

FOR CONTRACTOR

FOR MBE/WBE/VOBE FIRM

Authorized Signature

Authorized Signature

Print Name

Print Name

NOTE: To be submitted to the DCR Compliance Office within ten (10) days after completion of work by MBE/WBE/VOBE.

**E-2 Final Acceptance
Certificate of Final Inspection, Release and Acceptance**

Title: _____

Location: _____

Contractor: _____

This is to certify that a complete inspection of the above-referenced project was made on _____ by the undersigned, and that the entire work was completed in accordance with the plans and specifications. The undersigned recommends acceptance of the project.

_____	by: _____	Title: _____	Date: _____
Signature	Designer		Authorized

_____	Date	_____	Date
Resident Engineer		Project Manager	
_____	Date		
Project Engineer			

CERTIFICATE OF RELEASE

1.) The undersigned hereby certifies that all work has been completed in accordance with the plans, specifications, and contract documents and that all change orders have been supported pursuant to Article VII of the General Conditions of the Contract.

2.) Contract Award Price: \$	Adjusted Contract Price: \$
Authorized Additions: \$	Paid to Date: \$
Authorized Deductions: \$	Balance Due: \$

3.) The undersigned further certifies that in addition to the amount set forth above, there are outstanding and unsettled the following change orders as submitted to the DCR.

Request No.	Date:	Amount:
Request No.	Date:	Amount:
Request No.	Date:	Amount:

Subject to satisfactory disposition of change orders listed in Item 3 above, the undersigned releases the Commonwealth of Massachusetts from all further claims for wages or payments to subcontractors or suppliers except: (list on attached sheet).

_____	by: _____
Contractor	Authorized Signature
The above-referenced project is accepted as of _____	
	Date

Deputy Commissioner, Engineering
Deputy Director
Project Manager Resident
Engineer
Office of Contract Administration
Contractor



BID PACKAGE

PART IV

SPECIAL CONDITIONS OF THE CONTRACT

LAUREL LAKE DRAINAGE IMPROVEMENTS
CONTRACT NO. P25-3602-C3A

Supplementing Massachusetts Department of Transportation
Standard Specifications and Construction Details

SCOPE OF WORK

The scope of work includes clearing and grubbing, herbicide treatment of invasive plants, and an invasive plant management strategy. It involves installing tree and plant protection fences and removing trees with diameters under and over 24 inches, as well as stump removal. Excavation activities include Class A and Class B trench excavation, channel excavation, and Class B rock excavation. Drainage-related tasks include removing drainage structures, installing processed gravel and crushed stone, and using controlled low-strength material (manual excavatable, ≤ 100 PSI). Fine grading and compacting of subgrade areas will be performed.

Stormwater infrastructure installation includes catch basins, special catch basins, manholes (including those with depths of 9 to 14 feet), drop inlets (Type A), and adjusted drainage structures. Additionally, frames and covers will be installed, including MassDOT cascade-type frames and grates, and MassDOT drop inlets. Other drainage components include 12-inch hoods and masonry plugs. The project also involves installing 12-inch reinforced concrete pipe with flared ends, and various sizes of polyvinyl chloride (PVC) sanitary sewer pipes (4-inch and 10-inch), as well as corrugated plastic (polyethylene) pipes in 10-inch, 12-inch, 15-inch, and 18-inch diameters. A 4-inch slot-perforated corrugated plastic pipe will be installed for subdrain purposes.

Pavement and erosion control measures include cement concrete paving for waterways, jute mesh for waterways, and reclaimed pavement for base course and/or sub-base. The scope also covers the placement of Superpave surface course (12.5) and Superpave intermediate course (19.0). Curb work includes the installation of straight granite curb type VA4, as well as curb removal and resetting. Additional site work includes installing temporary fencing, geotextile filter bags, and geotextile fabric for separation.

Mobilization efforts will be undertaken, along with the placement of loam for lawns and seed mixes for erosion control and restoration in detention basins and moist sites. Sediment control barriers and aged pine bark mulch will be used for site stabilization. The scope further includes the use of 5000 PSI, 3/8-inch, 710 HP cement concrete and structural steel components. Finally, riprap installation will be carried out to ensure proper erosion and sediment control throughout the project area.

All work is located within Franklin County, Warwick, Massachusetts.

NOTE:

In addition to the aforementioned work, the project will preserve historic features of various roadways and facilities. Historic features to be preserved include retaining walls, culverts and their head/end walls, scenic overlooks, vistas, and other landscape characteristics. All work done under this contract will be completed without damage to historic features without the written approval by the Department.

All work under this Contract shall be done in conformance with the most current versions of MassDOT Standard Specifications for Highways and Bridges, the Construction Standard Details, the Traffic Management Plans and Detail Drawings, MassDOT Work Zone Safety Temporary Traffic Control, the Standard Drawings for Signs and Supports; the Overhead Signal Structure and Foundation Standard Drawings, the Manual on Uniform Traffic Control Devices (MUTCD) with Massachusetts Amendments; the Standard Drawings for Traffic Signals and Highway Lighting; The American Standard for Nursery Stock; the Plans and these Special Provisions.

The General Conditions, Special Conditions and Technical Specifications shall take precedence over the General Requirements of the Commonwealth of Massachusetts Department of Transportation Standard Specifications for Highways and Bridges and all other documents referenced above.

CONTACT INFORMATION

The following is a list of the contact information for Engineering:

Project Manager

Catherine Lampiasi, Section Head of Maintenance Construction Contracts

Catherine.A.Lampiasi@mass.gov

617-356-4978

Ecological and cultural permitting requirements for this contract will be completed by DCR. Cooperation between DCR, Contractor/Subcontractor and DCR hired Consultants is expected. Any permits will be issued to DCR will be provided prior to the start of that work. Any order of conditions issued should be closely reviewed and followed to ensure compliance. In locations where permitting is needed, meetings with the permitting agencies will be required prior to and during the construction process. All meetings and measures utilized to maintain compliance with the issued permits will be considered a part of the various line items and no additional cost will be paid for this work by the Department.

All other permits and licenses required to complete the work specified herein and shown on the drawings shall be arranged and obtained by the Contractor. Any fees not waived shall be paid for by the Contractor.

The Contractor shall supply all lines and grades, to the satisfaction of the Engineer. The cost of providing lines and grades shall be considered as having been included in the prices bid for the contract items.

The DCR Project Manager or a Resident Engineer will assign the Contractor a project location and scope of work for preliminary review. The Contractor will prepare a project summary detailing contract unit item quantities needed to complete the project with a total cost. The summary shall also include existing photos and a locus map clearly showing the project limits. A template shall be provided to the Contractor to be utilized for the summary package. The completed project summary will be submitted to the DCR Project Manager with the proposed work schedule for review and approval prior to authorization of work. Email authorization only shall be made by the Project Manager for locations the DCR has approved work with a not to exceed value. No work shall commence in locations that were not authorized by the Agency even if a project summary was provided. No separate payment shall be made for preliminary site visits or preparation of submittals including the project summary.

After the project is completed an updated project summary with quantities utilized will be submitted with the request for payment for that work. All weight slips, truck slips and invoices detailing quantities utilized for the work will be attached to and submitted with the final project summary. Actual quantities measured and utilized will be paid for only.

The Contractor will receive requests from the DCR Contract Manager or Resident Engineer for estimates for additional projects to be completed within the contract area. All work requested and approved to be done by DCR will be paid for at the contract item unit bid prices for this contract. Requests for payment will be prepared and submitted on a monthly basis.

CONSTRUCTION AND WORK SCHEDULE

Road Closures

To complete the project in a timely and cost-effective manner the Department of Conservation and Recreation (DCR) shall require the Contractor to close or restrict access to perform the necessary work activities. The Contractor shall provide necessary access for fire apparatus and other emergency vehicles on short notice. The Contractor will establish traffic control patterns as required by the Engineer within the limits of the contract related to the work areas and in conformance with the sketches included herein and/or as directed by the Engineer. A construction schedule for the proposed work will be submitted to the DCR Project Manager for approval prior to the start of the work. During certain roadway construction operations including milling and paving, road closures may be required as approved by the Department. All work at the end of the day shall be backfilled or plated and the road opened to all traffic. All detour signs shall be covered or removed when the detour is not in effect.

The Administration Buildings and The Visitors Centers shall remain open during the construction period and the Contractor shall provide access at all times.

Work Hours

The Contractor and all Subcontractors shall work on this project within normal eight-hour days and five-day weeks. Any deviation from the normal work hours including nights, weekends or holidays must be requested by the Contractor via email to the Department. Written approval will be granted on a case-by-case basis.

Holidays that occur during the construction period are as follows:

Holiday	2024	2025	2026
New Year's Day January First	Jan. 1, Mon.	Jan. 1, Wed.	Jan.1, Thurs.
Martin Luther King, Jr. Day Third Monday in January	Jan. 15, Mon.	Jan. 20, Mon.	Jan.19, Mon.
Washington's Birthday Third Monday in February	Feb. 19, Mon.	Feb. 17, Mon.	Feb. 16, Mon.
Patriots' Day Third Monday in April	Apr. 15, Mon.	Apr. 21, Mon.	Apr. 20, Mon.
Memorial Day Last Monday in May** (1A)	May 27, Mon.** (1A)	May 26, Mon.** (1A)	May 25, Mon.** (1A)
Juneteenth Independence Day June 19th	June 19, Wed.	Jun 19, Thurs.	Jun 19, Fri.
Independence Day July 4th**	July 4, Thurs.**	July 4, Fri.**	July 4, Sat.** (3)
Labor Day First Monday in September**	Sept. 2, Mon.**	Sept. 1, Mon.**	Sept. 7, Mon.**
Columbus Day Second Monday in October* (Restrictions until 12 noon) (2)	Oct. 14, Mon.*(2)	Oct. 13, Mon.*(2)	Oct. 12, Mon.*(2)
Veterans' Day November 11th* (Restrictions until 1pm) (2)	Nov. 11, Mon.** (2)	Nov. 11, Tues.** (2)	Nov. 11, Wed.** (2)
Thanksgiving Day Customarily the fourth Thursday in November* (1)	Nov. 28, Thurs.*(1)	Nov. 27, Thurs.*(1)	Nov. 26, Thurs.*(1)
Christmas Day December 25th* (1)	Dec. 25, Wed.*(1)	Dec. 25, Thurs.*(1)	Dec. 25, Fri.*(1)

Sunday Holidays: **In the event legal holiday falls on a Sunday, the holiday will be observed on the following Monday.

If the contract end date gets extended for any reason, the above legal holidays will still be honored.

WINTERIZING THE PROJECT

The Contractor shall inspect and take great care at the end of each construction season to prepare the project work area for severe winter conditions. The Contractor shall not leave any exposed surfaces at the end of each construction season. Exposed surfaces will be defined as areas of the project where the Contractor has removed (and not yet replaced) an existing bituminous concrete surface, all areas disturbed by construction operations and areas prone to erosion due to construction operations.

Temporary Pavement

- All areas of the project where the Contractor has removed (and not yet replaced) an existing asphalt surface, that cannot be paved (roadways to base course and paved waterways to finish) according to MassDOT standards shall be paved with temporary pavement. Temporary pavement shall be a minimum of two (2) inches thick. Temporary hot mix asphalt

shall be placed regardless of temperature or other adverse weather conditions, to protect exposed surfaces against severe winter and spring erosion.

- The installation and removal of temporary pavement for “Winterization” shall be considered as incidental to the work being performed under the Contract and there will be **NO** additional compensation.

Temporary Seeding/Stabilization

- All areas of the project where the Contractor has disturbed by construction operations and other areas prone to erosion due to construction operations shall be temporarily seeded, mulched or otherwise stabilized.
- The installation and removal of temporary seeding, mulching or other stabilization measures for “Winterization” shall be considered as incidental to the work being performed under the Contract and there will be **NO** additional compensation.

MANDATORY MEETINGS

As part of this Contract, the Contractor and Subcontractors working at the site shall attend one site meeting for each project proposed prior to the start of work. These meetings shall be utilized to coordinate the proposed work, subcontractors and police detail, if necessary, to review the project scope and to delineate sensitive (environmental and historical) work areas. There will be **NO** additional compensation for attendance at these meetings, it will be considered incidental to all construction items.

ENVIRONMENTAL OVERSITE

This section of the Special Conditions is for informational purposes only, to inform the Contractor that environmental oversight will be on-going on the construction sites during the entire construction period by Department, State, and municipal employees. Environmental oversight will provide the following assistance and guidance to the Department:

1. Oversee implementation of mitigation measures prior to, during and after construction.
2. Observe construction activities in the vicinity of rare species populations, wetlands, and exemplary natural communities.
3. Work with Department and Contractor to modify the design, if necessary, of the roadway and mitigation measures as needed to avoid and mitigate disturbance to rare species populations, wetlands, and exemplary natural communities.
4. Recommend to the Engineer to stop any work that may impact rare species populations, exemplary natural communities or wetlands that have not been identified in permitting as unavoidable or rare species populations discovered during construction.

MASSACHUSETTS ENDANGERED SPECIES ACT - PERMIT AND FINES

The Massachusetts Endangered Species Act (M.G.L. c. 131A), referred to as MESA, prohibits the taking of any plant or animal listed as Endangered, Threatened, or Special Concern. Due to unique ecological settings of some of many of the properties, state-listed rare species may occur within the project areas. The Massachusetts Natural Heritage Program will issue a permit for these properties for the take of avoidable impacts to identified listed species at specific locations in the project areas. The Contractor shall take all necessary precautions to avoid

unauthorized impacts to known locations of listed species, as well as those which may be discovered during project construction. Penalties for the illegal taking of state-listed rare species include fines of not less than \$500 per individual plant or animal, or part thereof, and/or up to 90 days in jail.

STAGING AREAS

Staging areas will be limited to those areas identified by the Department. Staging areas shall be **restored at the Contractors expense**. The Contractor shall restore all disturbed areas and restoration will consist of four (4) inches of loam borrow and seed mixtures as specified under the appropriate seeding items 765.1 and 765.12 as outlined in the technical specifications.

Prior to usage of all staging areas the contractor must perform the following:

- Delineate the extent of the staging area on the ground with temporary markings for review by the Department. Submit to the Department a schedule of time usage, materials to be stockpiled and a restoration (of the staging area) schedule.
- Receive written approval from the Department as to the extents of the area and other aforementioned questions.
- Install sedimentation barrier, if required, and temporary orange snow fence along the entire perimeter of the staging area save the entrance. The installation and removal of temporary orange snow fence for staging areas shall be considered as incidental to the work being performed under the Contract and there will be **NO** additional compensation.

The Contractor shall perform the following **during and after** the usage of designated staging areas:

- During - Monitor sedimentation barrier.
- After - Restore staging area to pre-construction conditions.

PHOTOGRAPHING PRIOR TO CONSTRUCTION

It shall be the Contractor's responsibility to photograph the designated area within the limits of work in advance of the start of work. It is of utmost importance to show the street line as well as all private and public property defects to minimize any claims of private property damage. It shall be the Contractor's responsibility to prove that such a defect existed prior to the start of the work. If the Contractor cannot prove damage to be a pre-existing condition, the necessary repairs shall be made at the expense of the Contractor. Should the Contractor request and receive approval to use access roads, the Contractor shall photograph the roads as mentioned above.

Photographing shall be considered as incidental to the work being performed under the Contract and there will be no additional compensation. A copy of the photograph must be conveyed to the Department of Conservation and Recreation, Project Manager and Resident Engineer in advance of the start of work.

COOPERATION OF THE CONTRACTOR

(Supplementing Subsections 5.05 and 5.06 of the MassDOT Standard Specifications)

Agents of various public service agencies, municipal Departments, and private site contractors may be entering the work site to remove or repair existing utilities, to construct or place new facilities, to make alterations to existing facilities or to perform various maintenance operations.

The Contractor shall perform the work in cooperation with the various agencies in a manner which causes the least interference with the operations of the aforementioned agencies and shall have no claim for delay which may be due, or result, from said work of these agencies.

SMART LEVEL

The Contractor shall provide the Resident Engineer with a four foot (4') "Smart level" for the duration of this contract. At project completion, the smart level shall revert back to the Contractor. All costs associated with the level shall be borne by the Contractor, and the level shall be considered incidental to this Contract.

SMARTPHONE, DIGITAL CAMERA & LAPTOP COMPUTER

The Contractor shall provide the Resident Engineer with a smartphone, a digital camera, and a lap-top computer with carrying case for the duration of this Contract. Contractor shall be responsible for providing high-speed internet access and all voice and data plans as necessary to maintain full functionality of all equipment provided. All furnished equipment must be current model year. Any equipment that may fail under this provision must be replaced within 48 hours of notification at Contractor's expense. All costs associated with the smartphone, digital camera and lap-top computer shall be borne by the Contractor and shall be considered incidental to this Contract.

The smartphone(s) must be capable of utilizing the internet services and push-email systems or approved equivalent. Smartphone must include at a minimum, a 1.3MP built-in zoom and flash camera, Speakerphone and Voice Activated Dialing, QWERTY-style keyboard, Bluetooth, Navigational GPS with the software disk, and a minimum 64 MB of built-in memory with expandable memory card slot. Please note, the Contractor shall need to purchase and submit a Client Access License for activation on the DCR's Blackberry Exchange server. This license shall become the property of the DCR after activation.

Additionally, each phone must include the following accessories: car and desktop chargers with cradle, computer data cable, holster-style case, a minimum 2GB removable memory card, and a Bluetooth enabled headset.

The camera shall be at a minimum capable of 5.0-megapixel resolution with 3x optical zoom with Built-in flash. Additionally, the camera must also include a minimum 1GB removable Multimedia Card and have a USB 2.0 Hi-Speed interface.

The lap top computer shall meet the following criteria:

Intel Core 2 Duo processor minimum 2.00GHz Dual Core, Windows XP Professional, SP2 512MB Minimum graphics card 15.4 inch Wide Screen WSXGA+ LCD display, 2 GB SDRAM, 80GB Hard Drive (5400RPM minimum) 8-24-24-24X CDRW/DVD Combo Drive, 802.11a/g and Ethernet Dual-band networking, with Nylon light weight Classic Carrying Case

Two 2GB USB Flash Memory Sticks
One Wireless Optical Mouse with scroll wheel
One 80GB minimum Portable External Hard Drive 5400RPM with USB 2.0 interface
Microsoft® Office 2007 Small Business Edition and Adobe Acrobat 8 STD
McAfee Security Center with anti-Virus, anti-Spyware, firewall, 15-month

All in one style Color printer capable of FAX, Scan and Print. Black print resolution: Up to 1200 rendered dpi, Color print resolution: Up to 4800 x 1200 optimized dpi color (when printing from a computer and 1200 input dpi) minimum 100-sheet input tray, plus automated 20-sheet 4 x 6 in. photo tray, 50-sheet Automatic Document Feeder (ADF).

The smartphone, digital camera and lap-top computer shall be returned to the Contractor at the completion of the contract. All removable media including multimedia cards, hard drives, and flash memory devices, shall become the property of the DCR.

THERMOMETER FOR HMA & CEMENT CONCRETE

The Contractor shall provide the Resident Engineer with 2 thermometers (1 for hot mix; 1 for cement concrete) for the duration of this Contract. These thermometers must be direct-reading, all-metal-body thermometers that can read degrees Fahrenheit (°F). The thermometers must have an external adjustment that allows recalibration. They shall be at least eight (8") inches long with a minimum dial width of 1-3/4". The cement concrete thermometer needs to have a temp. range of 25 °F to 125 °F, and read in increments of 1°F, or less. The hot-mix asphalt thermometer needs to have a temp. range of 50 °F to 500 °F, and read in increments of 5°F, or less. At project completion, the thermometers shall revert to the contractor. All costs associated with the thermometers shall be borne by the Contractor and shall be considered incidental to this Contract.

MONTHLY PRICE ADJUSTMENTS

Price adjustments for this contract shall conform to MassDOT's Special Provision for Liquid Asphalt, Portland Cement Concrete, Diesel Fuel, and Gasoline, structural steel and reinforcing steel. The following link is provided below for MassDOT guidelines, definitions, and instructions for calculating the price adjustments. Also, provided below is a link to the most recent period prices. The base price is found in part I of this contract (based of the month of September 2024).

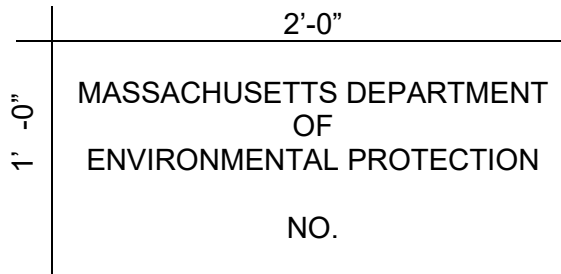
<https://www.mass.gov/service-details/massdot-special-provisions>

<https://www.mass.gov/info-details/massdot-current-contract-price-adjustments>

All price adjustments shall be paid for under the associated allowance item in the contract. All necessary documentation related to the price adjustment shall be provided by the Contractor prior to any payments made by the Agency.

**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. Signs shall be as follows:



Notes:

1. Contractor is to submit letter size and spacing for the completion of this sign according to the sketch given.
2. Sign plate shall be 3/4" plywood (Marine Grade)
3. The location and method of installation of this sign shall be determined by the department.
4. One (1) sign per each project, if an Orders of Conditions is issued, is required.

**PATENTED DEVICES, MATERIALS AND PROCESSES (Amending Subsection 7.06)
Replace subsection 7.06 of the MassDOT Standard Specifications with the following:**

It is mutually understood and agreed that, without exception, Contract prices are to include all royalties and costs arising from patents, trademarks and copyrights in any way involved in the work. It is the intent that whenever the Contractor is required or desires to use any design, device, material, or process covered by letters patent or copyright, the right for such use shall be provided for by suitable legal agreement with the patentee or owners. A copy of this agreement shall be filed with the Department; however, whether or not such agreement is made or filed as noted, the Contractor and the surety in all cases shall indemnify and save harmless the Party of the First Part from any and all claims for infringement by reason of the use of any such patented design, device, material or process to be involved under the Contract. He, or They, shall indemnify the Party of the First Part for any cost, expenses, and damages which it may be obliged to pay, by reason of any such infringement, at any time during the prosecution or after the completion of the work.

**PUBLIC SAFETY AND CONVENIENCE
(Supplementing Subsection 7.09 of the MassDOT Standard Specifications)**

Sweeping and cleaning of surfaces beyond the limits of the project required 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.

The Contractor shall provide necessary access for fire apparatus and other emergency vehicles to abutting properties on short notice.

At the end of each working day where trenches that are in areas of public travel are covered with steel plates, each edge of the plates shall be either beveled or protected by a bituminous concrete ramp at a slope of 2 feet horizontally to 1 inch vertically. Any temporary patching material may be used to construct the ramps. The cost of necessary patching materials, steel plates and their maintenance and removal, will be considered incidental to the item involved with **NO** separate payment.

NOTICE TO OWNERS OF UTILITIES

(Supplementing Subsection 7.13 of the MassDOT Standard Specifications)

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 Department.

Before commencing work, the Contractor shall be responsible for contacting the Electric Company servicing the area to obtain construction requirements, standards, and to give adequate notice of commencement of work.

The Contractor shall make their own investigation to assure that no damage to existing structures, drainage lines, traffic signal conduits, and other utilities will occur as a result of construction operations.

The Contractor shall notify "Mass. DIG SAFE" and procure a DIG SAFE number of each project location prior to disturbing ground in any way.

"DIG-SAFE" Call Center: Telephone 1-888-344-7233

PROTECTION OF UTILITIES AND PROPERTY

(Supplementing Subsection 7.13 of the MassDOT Standard Specifications)

The Contractor, in constructing or installing facilities alongside or near storm drains, poles, walls, or other structures shall sustain them securely in place, cooperating with the officers and agents of the various utility companies and municipal departments which control them, so that the services of these structures shall be maintained. The Contractor shall also be responsible for the repair or replacement of any damage to such structures caused by construction and shall leave them in the same condition as they existed prior to commencement of the work. In case of damage to utilities, the Contractor shall promptly notify the utility owner and shall, if requested by the Department, furnish labor and equipment to work temporarily under the utility owner's direction in providing access to the utility. Pipes or other structures damaged by the operation of the Contractor may be repaired by the Department or by the utility owner, which suffers the

loss. The cost of such repairs shall be borne by the Contractor, without compensation, therefore.

If, as the work progresses, it is found that any of the utility structures are so placed as to render it impracticable, in the judgment of the Department, to do the work called for under this Contract, the Contractor shall protect and maintain the services in such utilities and structures and the Department will, as soon thereafter as reasonable, cause the position of the utilities to be changed or take such other actions deemed suitable and proper.

Full compensation for furnishing all labor, materials, tools, equipment, and incidentals for doing all the work involved in protecting or repairing property as specified in this section, shall be considered included in the prices paid for the various Contract items of work and no additional compensation will be allowed, therefore.

SCHEDULE OF OPERATIONS

The Contractor shall submit to the Department a schedule of operations (with item quantities and values) within ten days of receiving a detailed request for work. This ten-day period may be changed or waived with the approval of the Department. The schedule shall show the proposed methods of construction and sequence of work and the time the Contractor proposes to complete the various items of work.

PROVISIONS FOR TRAVEL AND PROSECUTION OF THE WORK **(Supplementing Subsection 8.03 of the MassDOT Standard Specifications)**

Before starting any work at any location under this Contract, the Contractor shall prepare, and submit to the Department for approval, a plan that indicates the traffic routing proposed by the Contractor during the various stages and time periods of the work and the temporary barricades, signs, drums and other traffic control devices to be employed during each stage and time period of the work to maintain traffic and access to abutting properties, if the roadways are to be left open during the construction period.

Particular care shall be taken to establish and maintain methods and procedures that will not create unnecessary or unusual hazards to public safety. Traffic control devices required only during working hour operations shall be removed at the end of each working day.

Signs having messages that are irrelevant to normal traffic conditions shall be removed or properly covered at the end of each work period. Signs shall be kept clean at all times and legends shall be distinctive and unmarred.

WORK ZONE SAFETY

It is the responsibility of the Contractor to install the appropriate temporary traffic control devices in accordance with the Federal Highway Administration's Manual on Uniform Traffic Control Devices (MUTCD) and the Massachusetts Amendments to the MUTCD. The web addresses provided below are for reference material.

<https://mutcd.fhwa.dot.gov/>

<https://www.mass.gov/lists/mutcd-massachusetts-amendments>
<https://www.mass.gov/doc/traffic-management-plans-and-detail-drawings/download>

TEMPORARY ACCESS

(Supplementing Subsections 8.02 and 8.06 of the MassDOT Standard Specifications)

Most of the work will take place on DCR property (i.e., inside the gates); however, some paving operations will be performed outside gated areas. The Contractor shall provide safe and ready means of ingress and egress for Emergency Vehicles, both day and night, for the duration of the project.

MATERIAL REMOVED AND STACKED

The Contractor shall carefully remove, transport and stack these materials on boards at a DCR maintenance yard closest to the project site unless directed otherwise.

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.

CONCRETE FOUNDATIONS

Concrete foundations of items to be removed, if not interfering with the proposed construction, may be abandoned in place with approval of the Department. Foundations left in place under roadway surface shall be removed to a depth of 3 feet below finished grade.

DRAINAGE

The Contractor shall maintain the drainage system in the project areas to provide continual drainage of the travel-ways and construction area.

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.

SAWCUTS

Existing pavements to remain shall be sawcut at all joints with proposed full-depth asphalt pavement, as directed by the Department.

ORDER OF CONDITIONS and OTHER RESTRICTIONS

The Department will be responsible for ecological and cultural review and permitting prior to authorizing work in any specific location. Any Order of Conditions or specific direction issued by the Department of Environmental Protection, NHESP, or the Massachusetts Historical Commission for the various projects will be obtained by the Department and incorporated into the scope of work prior to the start of construction. It is the responsibility of the Contractor to minimize impacts and preserve historic features of various Parkways and facilities and to complete all construction activities within the limits of work as directed by the Engineer.

STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

Under this contract the Contractor shall be the responsible party on site for protection of water quality in adjacent receiving water during construction of the projects. The Contractor shall prepare the necessary documents, notices, and reports to serve as the required Storm Water Pollution Prevention Plan (SWPPP) in compliance with the NPDES General Permit for Storm Water Discharge from Construction Sites, issued by US EPA. These documents, notices and reports shall be available on the construction site until all construction involving land disturbance is completed and the site is permanently stabilized against erosion and sediment discharge to waters of the United States.

PROJECT OPERATOR AND RESPONSIBILITIES

The responsible "operator", as designated by the Contractor, is that party that has day-to-day operational control of all site work activities necessary to comply with this SWPPP. The operator for this project shall be designated on the USEPA form 3510-9 "Notice of Intent", to be submitted to the USEPA at least 48 hours before any disturbance of the land surface associated with projects under the contract over 1 (one) acre in size.

The Operator shall install, maintain, and replace as necessary all measures for erosion control, sediment control, wetland protection, and water quality protection, throughout the site as is outlined in the environmental permits in accordance with local, state, and federal wetlands and environmental regulations and permits. The Operator shall execute all work in such a manner as to prevent alteration or degradation of wetlands or buffer zones beyond designated work limit lines, including taking temporary or emergency measures as necessary.

The Operator shall assume all responsibility for compliance with NPDES General Permit for Storm Water Discharge from Construction Sites, issued by US EPA, under this contract.

POLICE SERVICES

The Contractor shall be responsible for coordinating and scheduling of detail services as required by the Department. The cost of the police details will be paid for by the Department under the appropriate allowance item. When projects require State Police services the Contractor must utilize the third-party detail management service as outlines in the attached document.

END OF SECTION



BID PACKAGE

PART V

TECHNICAL SPECIFICATIONS

**LAUREL LAKE DRAINAGE IMPROVEMENTS
CONTRACT NO. P25-3602-C3A**

**TECHNICAL SPECIFICATIONS
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**LAUREL LAKE DRAINAGE IMPROVEMENTS
CONTRACT NO. P25-3602-C3A**

ITEMS

All work under this Contract shall conform to the latest versions of the following:

- MassDOT Standard Specifications and Guidelines:
 - Standard Specifications for Highways and Bridges
 - Construction Standard Details
 - Traffic Management Plans and Detail Drawings
 - Work Zone Safety Temporary Traffic Control
 - Standard Drawings for Signs and Supports
 - Guide Sign Policy for Secondary State Highways
 - Overhead Signal Structure and Foundation Standard Drawings
 - Standard Drawings for Traffic Signals and Highway Lighting
- Other Applicable Standards:
 - Manual on Uniform Traffic Control Devices (MUTCD) with Massachusetts Amendments (U.S. DOT)
 - The American Standard for Nursery Stock

Additionally, the work shall comply with the plans, special provisions and most current amendments/engineering directives.

The General Conditions, Special Conditions and Technical Specifications shall take precedence over the General Requirements of the Commonwealth of Massachusetts Department of Transportation Standard Specifications for Highways and Bridges and all other documents referenced above.

The following items reflect special conditions particular to this Contract. As such, they amend and/or supplement the provisions governing the item as described in the Standard Specifications.

This work consists of clearing, grubbing, removing, and disposing of vegetation, stumps, roots, brush, and other debris within the designated limits of construction. It also includes the preservation and protection of trees and vegetation as specified in the contract documents. The work shall be performed in accordance with the plans and specifications and in compliance with applicable environmental regulations and permitting requirements.

All erosion and sedimentation control measures shall be installed before beginning any clearing and grubbing operations. Work shall not commence until the limits of work have been verified and authorized by the Engineer.

EQUIPMENT

- The contractor shall provide all necessary machinery and tools to perform clearing and grubbing efficiently. Equipment may include, but is not limited to:
 - Excavators, dozers, and loaders for vegetation and stump removal
 - Chippers, grinders, or mulchers for processing cleared material
 - Trucks for off-site material removal
 - Chainsaws and hand tools for selective clearing
 - Erosion control installation tools

All equipment shall be maintained in good working order to minimize environmental impacts such as noise, emissions, and fluid leaks.

MATERIALS

- No specific materials are required for this item. However, the contractor shall furnish and install erosion control measures as necessary, in compliance with the following specifications:
 - Item 102.521 – Tree and Plant Protection Fence
 - 767.8 – Bales of Hay for Erosion Control
 - 767.82 – Dewatering Haybale Basin
 - 767.83 – Dewatering Filter Bag

Temporary or permanent stabilization measures, including mulching, seeding, or erosion control blankets, shall be applied as necessary to prevent soil erosion and sedimentation.

CONSTRUCTION METHODS

Clearing shall involve the removal of all trees, brush, and vegetation within the project limits unless otherwise specified. Trees designated for preservation shall be protected from damage in accordance with the contract requirements.

Grubbing shall include the removal of all stumps, roots, and buried organic matter greater than 4 inches in diameter to a depth of at least 12 inches below the ground surface. The area shall be left in a condition suitable for further site preparation or construction activities.

Disposal of cleared and grubbed material shall be carried out in an environmentally acceptable manner. This may include chipping, burning (if permitted by local regulations), or off-site removal in accordance

with the project specifications. All disposal activities shall be accomplished in accordance with all applicable Federal, State, and local ordinances.

Erosion control measures shall be implemented to stabilize disturbed areas in accordance with erosion and sediment control requirements. Temporary or permanent stabilization methods, such as mulching, seeding, or erosion control blankets, shall be applied as necessary to prevent soil erosion and sedimentation.

The limits of clearing and grubbing shall be as shown on the plans or as directed by the Engineer. Any areas outside the designated limits that are disturbed or damaged during construction shall be restored at no additional cost to the project.

Due to the varying environmental sensitivity of the projects, all sedimentation and control barriers and other protective measures, as required by the Department and as detailed in 102.511, Roadside Tree Protection – Trunk Wrap, 767.8, Bales of Hay for Erosion Control, 767.82, Dewatering Haybale Basin and 767.83, Dewatering Filter Bag are to be in place prior to the start of all clearing and grubbing operations. Clearing and Grubbing shall be done only upon direction by the Department and after verification of the limits of work.

MEASUREMENT AND PAYMENT

Clearing and grubbing will be measured by the number of Square Yards cleared and grubbed within the designated limits as specified in the contract documents. Measurement shall be based on actual field verification conducted by the Engineer.

Payment will be made at the contract unit price per square yard, which shall include all labor, equipment, and incidental costs associated with clearing, grubbing, disposal, and site stabilization. No additional payment will be made for work performed outside the specified limits or for unauthorized clearing.

ITEM 102.13**TREE TRIMMING AND BRUSH REMOVAL (CREW HOUR)****HR**

The work consists of removing all dead, dying, broken and certain other limbs and branches that conflict with construction operations or compromise the safe passage of pedestrian or vehicular traffic located within the limits of DCR property. Specific locations for tree trimming shall be identified by the Engineer.

All pruning and tree work shall be in conformance with the most current version of the American National Standards Institute (ANSI) Standard Z-133.1 and A300 Standard Practices for Tree, Shrub, and Other Woody Plant Maintenance.

All work under this item will be performed or supervised by the Massachusetts Certified Arborist. At a minimum the Contractor shall be required to provide a crew, consisting of a bucket truck with operator and grounds man for pruning and removal. The minimum crew shall consist of the following: a supervisor and three tree-trimmers/laborers. The crew shall be equipped with all necessary equipment needed to complete the work including, but not limited to, pickup trucks, chippers, gas powered chain saws, hand saws, loppers, shears, pruners, branch trimmers, ladders, tree-climbing equipment, labor, etc. Fuel for equipment shall also be considered incidental to this item.

SUBMITTALS

Prior to start of work, the Contractor shall submit to the Engineer the name, certification number and resume of the Massachusetts Certified Arborist referenced herein. Cost for Certified Arborist for all activities pertaining to these Items shall be incidental to this item.

DESCRIPTION OF WORK

TREE: Shall be defined as having a diameter of 4 inches or over, measured at a point 3 feet above the average ground.

LIMBS AND BRANCHES: Shall be defined as wood having a diameter of ½ inch or over and wood that has a diameter of less than ½ inch shall be considered a TWIG.

A DYING LIMB OR BRANCH: May have live growth at some point but shall be removed if found to be in an unhealthy condition.

If directed by the Engineer, specific trees, or parts thereof which are so located that damage may result from dropping shall be reduced by rope or cable lowering.

BRUSH: Shall conform to the relevant provisions of section 8.08 and 101 of the MassDOT Standard Specification.

The method of disposal of all materials shall be the responsibility of the Contractor and shall be approved by the Department. All methods of disposal shall be accomplished in accordance with all applicable Federal, State, and local ordinances. All vegetative litter generated under this item shall be disposed of offsite.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

This item will be measured and paid for at the Contract unit price per HOUR per crew engaged in tree trimming and brush removal based on the overall time toward the assigned area. The unit price shall include full compensation for all labor, materials, equipment, and off-site disposal and incidental costs required to complete the work as described above and as directed by the Engineer.

No additional payment shall be made for additional crew members over the 3 minimum contributing to these activities.

No separate payment will be made for individual tree removal. No separate payment will be made for individual stump removal.

Sedimentation control barriers and other protective measures will be paid for under Items 767.121 Sediment Control Barrier.

This work consists of the identification, treatment, and control of invasive plant species within the project limits using approved herbicides. It is a key component of the broader **Invasive Plant Management Strategy (Item 102.33)** and is intended to work in conjunction with mechanical removal, monitoring, and restoration efforts. The objective is to reduce the spread of invasive vegetation that may impact native plant communities, soil stability, or the function of constructed stormwater and landscape features. All herbicide applications shall be performed in accordance with federal, state, and local regulations, as well as manufacturer recommendations.

MATERIALS

All herbicides used shall be approved by the appropriate regulatory agencies and suitable for controlling the targeted invasive species. The herbicides shall be applied at the recommended rates and concentrations specified by the manufacturer. Adjuvants, surfactants, or other additives may be required to enhance the effectiveness of the treatment. Water used for mixing herbicides shall be clean and free of contaminants that may reduce the efficacy of the application. If mechanical removal is required in conjunction with herbicide application, the necessary equipment and disposal materials shall be included as part of the overall invasive plant management strategy.

CONSTRUCTION METHODS

Prior to application, invasive plant species shall be identified as part of the broader **Invasive Plant Management Strategy (Item 102.33)**, and the extent of the infestation shall be documented. Herbicide treatment shall be performed only by licensed applicators trained in the safe handling and application of herbicides.

Herbicides shall be applied using equipment appropriate for the site conditions, which may include backpack sprayers, boom sprayers, or injection systems. Application shall be performed during appropriate weather conditions to minimize drift and runoff, and treatment shall not be conducted during high winds or when rainfall is expected within the restricted re-entry period specified by the manufacturer.

Treated areas shall be monitored for effectiveness, and follow-up treatments may be required if regrowth occurs. In cases where herbicide treatment alone is insufficient, **mechanical removal, site stabilization, or restoration (as part of Item 102.33)** may be necessary to fully control the invasive species.

Erosion and sediment control measures shall be maintained in treated areas to prevent soil disturbance and off-site movement of herbicide residues. Any disturbance resulting from the treatment process shall be restored in accordance with project specifications.

MEASUREMENT AND PAYMENT

Herbicide treatment of invasive plants will be measured by the actual number of hours spent performing herbicide application within the designated project limits. Measurement shall include the time spent on active herbicide application but shall not include preparation, mobilization, or monitoring activities unless otherwise specified.

Payment will be made at the contract unit price per hour, which shall include all labor, equipment, materials, and incidental costs associated with herbicide application. Additional compensation for re-treatment will be provided only if directed by the Engineer and deemed necessary under the **Invasive Plant Management Strategy (Item 102.33)**.

This work consists of developing and implementing a comprehensive invasive plant management strategy within the project limits. The strategy shall include assessment, herbicide treatment (**Item 102.3**), mechanical removal, monitoring, and, where applicable, habitat restoration efforts. The objective is to provide long-term control of invasive species through an integrated approach, ensuring compliance with environmental regulations and preventing the re-establishment of invasive vegetation.

MATERIALS

Materials required for invasive plant management may include herbicides (**as specified under Item 102.3**), mechanical removal tools, erosion control materials, and native plant species for site restoration. Herbicides must be approved for use in the project area and applied according to manufacturer recommendations. Mechanical removal tools may include hand tools, mowers, or other vegetation management equipment. If restoration is required, native plant materials shall be sourced from approved nurseries to prevent the introduction of additional invasive species.

CONSTRUCTION METHODS

The contractor shall begin by conducting a survey to identify invasive plant species within the designated project limits. Based on the findings, an invasive plant management strategy shall be developed, incorporating methods such as herbicide treatment (**Item 102.3**), mechanical removal, and habitat restoration.

Herbicide treatment shall be carried out following the specifications outlined in **Item 102.3**, ensuring proper application and monitoring for effectiveness.

Mechanical removal shall be performed where herbicide application is not feasible or permitted. Removed plant material shall be disposed of in a manner that prevents further spread, such as bagging and off-site disposal or on-site treatment as approved by the Engineer.

Monitoring and maintenance shall be conducted to assess treatment effectiveness and prevent regrowth. Follow-up treatments or additional removal efforts may be required based on site conditions. Any disturbed areas shall be stabilized and, if necessary, revegetated with native species to prevent re-establishment of invasive plants.

Erosion control measures shall be implemented throughout the management process to prevent soil loss and ensure environmental compliance.

MEASUREMENT AND PAYMENT

Invasive plant management strategy implementation will be measured by the actual number of hours spent performing assessment, treatment (**in coordination with Item 102.3**), monitoring, and reporting within the designated project limits. Measurement shall include active time spent on fieldwork but shall not include mobilization, administrative tasks, or non-field activities unless otherwise specified.

Payment will be made at the contract unit price per hour, which shall include all labor, equipment, materials, and incidental costs associated with executing the invasive plant management strategy. No additional compensation will be provided for re-treatment unless directed by the Engineer.

ITEM 102.521**TREE AND PLANT PROTECTION FENCE****EACH**

The work under this item shall conform to the relevant provisions of MassDOT Sections 101 and 771 of the Standard Specifications and the following:

The purpose of the work is to prevent damage to and ensure the survival of existing trees that are to remain. The work includes steps to minimize disturbance and the construction of protection for trees close to construction areas.

EXAMINATION OF CONDITIONS

The Contractor shall protect all existing trees within the limits of work not designated to be removed for the length of the construction period.

The Contractor shall be responsible for determining the full extent of the work requirements, including any equipment and materials required for providing tree protection.

MATERIALS

The type of fence and temporary fence posts proposed for individual tree protection shall be subject to the approval of the Department.

Typical fencing shall be 4 feet high orange plastic utility/snow fence. Fencing for wrapping tree trunks within 3' of the road or parking lot pavement edge or within 3' of the proposed limits of work shall be 4 feet high wire and wood slat snow fence.

The material and size of fence posts shall be adequate to securely support the fence.

Contractor shall provide water to maintain trees, in the construction area that will have exposed root systems for any period during construction.

CONSTRUCTION METHOD

The tree protection fencing, and individual tree protection shall be constructed in accordance with the specifications.

Prior to any construction activities, the Contractor shall meet on site with the Department to designate which trees are to be protected.

Equipment movement over the root zone is prohibited.

For each tree to be protected, the Contractor shall set posts and fencing at the limits of the tree canopy. Where construction activities must occur closer to the trees, the Contractor shall move branches out of the way and place aged pine bark mulch to a depth of 2 inches on the ground to protect the root systems.

Individual tree trunks immediately adjacent to the roadway (within 3' of the edge of pavement) which are to remain shall be twice wrapped by a wood/wire snow fence to protect the trunk from scarring or damage. This fence shall be wired or tied securely and left in place throughout the construction period. Fence should be adjusted if construction period extends greater than one season.

Individual tree protection fencing, and wood chips shall be maintained throughout the duration of the construction. Protective fencing shall be repaired, and aged pine bark mulch replaced as required.

After all other construction is complete, but prior to final seeding, aged pine bark mulch and protective fencing materials shall be carefully removed and legally disposed off site by the Contractor.

Wood and wire snow fence around individual trees shall be carefully removed and legally disposed of off-site by the Contractor.

CUTTING AND PRUNING

Some pruning of roots and branches may be a necessary part of construction. Such pruning shall be performed on the same side of the tree that roots have been severed.

The Contractor shall retain the services of a State Certified Tree Surgeon 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 closed and watered within eight hours. If during that period of time, tree roots are exposed to full sun and/or air temperature exceeds 70 degrees F, exposed roots shall be protected by covering with dampened burlap.

Water each tree until saturated within the construction area where work is in progress twice per week for the duration of construction activities.

TREE DAMAGE

Any tree damage which, in the Department's determination, can be remedied by corrective maintenance shall be repaired immediately. Broken limbs shall be pruned according to industry standards. Wounds shall not be painted. Trees which are damaged irreparably shall be replaced by the Contractor with new trees of approved size and type.

MEASUREMENT AND PAYMENT

Individual Tree Protection and Roadside Tree Protection – Trunk Wrap will be paid for at the Contract unit price per each, which price shall include full compensation for all labor, equipment, materials, and incidental costs for the work, including the services of a certified tree surgeon, water, aged pine bark mulch, the subsequent removal and satisfactory disposal of the protective materials upon completion of the work, damage repair and required replacement.

<u>ITEM 103.</u>	<u>TREE REMOVED - DIAMETER UNDER 24 INCHES</u>	<u>EA</u>
<u>ITEM 104.</u>	<u>TREE REMOVED - DIAMETER 24 INCHES AND OVER</u>	<u>EA</u>
<u>ITEM 105.</u>	<u>STUMP REMOVED</u>	<u>EA</u>

The work under these items consists of the removal of individual trees and stumps as designated on the contract plans or as directed by the Engineer. Trees and stumps shall be cut, removed, and disposed of in accordance with applicable state and local regulations.

EQUIPMENT

- Chainsaws and tree-felling equipment
- Excavators with hydraulic thumbs or stump grinders
- Chipping machines for on-site processing
- Trucks for hauling debris off-site

MATERIALS

- Wood chip mulch (if applicable)
- Topsoil and seed (for restoration after stump removal)

CONSTRUCTION METHODS

- Tree Removal:
 - Trees shall be measured at a height of 3 feet above ground level.
 - Trees under 2 feet in diameter shall be removed under Item 103.
 - Trees 2 feet and over in diameter shall be removed under Item 104.
 - Trees shall be felled in a controlled manner to avoid damage to adjacent structures or vegetation designated for preservation.
- Stump Removal:
 - Stumps and major root systems shall be completely removed under Item 105.
 - Backfilling of stump holes shall be performed with suitable material and compacted to match surrounding ground.
- Disposal:
 - Chipped material may be used on-site if permitted.
 - All removed trees and stumps shall be disposed of in accordance with state regulations.

METHOD OF MEASUREMENT

- Item 103 and Item 104: Measured as the number of trees removed, counted individually based on diameter.
- Item 105: Measured as the number of stumps removed, including major root systems.

PAYMENT

- Item 103 – Tree Removed (Diameter Under 2 feet): Paid per each tree removed.
- Item 104 – Tree Removed (Diameter 2 feet and Over): Paid per each tree removed.

- Item 105 – Stump Removed: Paid per each stump removed.
- Payment includes all labor, equipment, and disposal costs.
- No separate payment will be made for preparation and spreading of wood chips.

ITEM 141.**CLASS A TRENCH EXCAVATION****CY**

Class A Trench Excavation shall include the removal and satisfactory disposal of all materials, except Class B Rock Excavation that are encountered in the construction or demolition of masonry culverts and other structures having a clear square span of less than 8 ft, masonry inlets, culvert ends, masonry walls, revetment, test pits, paved waterways, construction of drains for slope or subgrade stabilization and in the construction, widening, straightening or deepening of drainage ditches and water courses in connection with pipes or structures having a clear span of less than 8 ft.

Test pits to locate underground services shall be excavated where directed and will be classed as Class A Trench Excavation. The Contractor shall take special care during this excavation to avoid damage to any underground structures or utilities. When necessary, the Contractor shall cooperate with representatives of public service companies in order to avoid damage to their structures by permitting them to erect suitable supports, props, shoring or other means of protection.

The work shall be performed in accordance with the **Massachusetts Department of Transportation (MassDOT) Standard Specifications**, project plans, and all applicable environmental regulations.

MATERIALS AND EQUIPMENT

No specific materials are required for this item. However, all excavation work must be performed in a manner that minimizes disturbance to adjacent areas and prevents contamination of waterways. Any required erosion control measures, such as silt fencing, sediment barriers, or turbidity curtains, shall comply with MassDOT standards and be installed as directed.

If unsuitable materials are encountered within the excavation limits, they shall be removed and replaced as specified in the contract documents. Excavated material that meets project requirements may be reused as embankment or backfill; otherwise, it shall be disposed of in accordance with the project specifications.

The following equipment may be used for trench excavation, depending on site conditions and project requirements:

- **Excavators (tracked or wheeled)** for general excavation and trenching
- **Backhoes** for smaller excavation areas or working in confined spaces
- **Trench boxes or shoring systems** for worker safety
- **Dump trucks** for hauling excavated materials to designated disposal or reuse locations
- **Graders** for final shaping of excavation areas
- **Skid steers** for minor excavation and material handling in restricted areas
- **Pumps and dewatering equipment** if water removal is necessary during excavation

All equipment shall be in good working condition, suitable for the intended work, and operated by qualified personnel. The Contractor shall ensure that equipment use does not cause excessive ground disturbance or environmental damage.

CONSTRUCTION METHODS

Prior to excavation, the Contractor shall review the plans and confirm the required trench alignment, depth, and width. Any deviations must be approved by the Engineer before proceeding.

Excavation shall be performed using appropriate equipment to achieve the specified trench dimensions. Care shall be taken to avoid over-excavation, which could lead to instability or excessive backfill requirements. If over-excavation occurs, the Contractor shall restore the area to the specified grade using approved material at no additional cost to the project.

Excavated material shall be managed in accordance with the contract documents. If suitable, material may be stockpiled for reuse, provided it does not obstruct access or interfere with construction operations. Unsuitable or excess material shall be disposed of at locations approved by the Engineer.

Erosion and sedimentation control measures shall be implemented before, during, and after excavation to protect adjacent areas and prevent sediment discharge. Temporary or permanent stabilization, such as seeding, mulching, or placing geotextiles, shall be installed as required to maintain trench stability.

If dewatering is necessary, the Contractor shall implement appropriate methods to control water levels while complying with environmental regulations. Discharge of water from dewatering operations shall be directed to approved locations and treated as necessary to prevent sediment contamination.

Upon completion of excavation, the trench shall be inspected by the Engineer to ensure compliance with design specifications. Any deficiencies shall be corrected before acceptance of the work.

MEASUREMENT AND PAYMENT

Class A Trench Excavation will be measured in cubic yards (CY) of material excavated. Payment at the contract unit price per cubic yard includes excavation, handling, and disposal but excludes dewatering, backfilling, sheeting, shoring, and any additional work not specified within this item.

ITEM 142.**CLASS B TRENCH EXCAVATION****CY**

Class B Trench Excavation includes the removal and disposal of all materials, except those classified under Class B Rock Excavation, encountered in the construction of drainage and water pipes at depths greater than 5 feet. This excavation applies specifically to trenches required for pipe laying beyond the standard depth threshold. For roadway cuts, trench excavation includes only the portion of the trench located below the roadway excavation unless the Engineer provides written instructions to complete the trench excavation and backfill before roadway excavation begins.

The work shall be performed in accordance with the **Massachusetts Department of Transportation (MassDOT) Standard Specifications**, project plans, and all applicable environmental regulations.

MATERIALS AND EQUIPMENT

No specific materials are required for this item. However, all excavation work must be performed in a manner that minimizes disturbance to adjacent areas and prevents contamination of waterways. Any required erosion control measures, such as silt fencing, sediment barriers, or turbidity curtains, shall comply with MassDOT standards and be installed as directed.

If unsuitable materials are encountered within the excavation limits, they shall be removed and replaced as specified in the contract documents. Excavated material that meets project requirements may be reused as embankment or backfill; otherwise, it shall be disposed of in accordance with the project specifications.

The following equipment may be used for trench excavation, depending on site conditions and project requirements:

- **Excavators (tracked or wheeled)** for general excavation and trenching
- **Backhoes** for smaller excavation areas or working in confined spaces
- **Trench boxes or shoring systems** for worker safety
- **Dump trucks** for hauling excavated materials to designated disposal or reuse locations
- **Graders** for final shaping of excavation areas
- **Skid steers** for minor excavation and material handling in restricted areas
- **Pumps and dewatering equipment** if water removal is necessary during excavation

All equipment shall be in good working condition, suitable for the intended work, and operated by qualified personnel. The Contractor shall ensure that equipment use does not cause excessive ground disturbance or environmental damage.

CONSTRUCTION METHODS

Prior to excavation, the Contractor shall review the plans and confirm the required trench alignment, depth, and width. Any deviations must be approved by the Engineer before proceeding.

Excavation shall be performed using appropriate equipment to achieve the specified trench dimensions, particularly for depths greater than 5 feet. Care shall be taken to avoid over-excavation, which could lead to instability or excessive backfill requirements. If over-excavation occurs, the Contractor shall restore the area to the specified grade using approved material at no additional cost to the project.

For trenching within roadway cuts, excavation shall only include the portion of the trench below the roadway excavation, unless directed otherwise in writing by the Engineer. If required, trench excavation and backfill must be completed before roadway excavation begins.

Excavated material shall be managed in accordance with the contract documents. If suitable, material may be stockpiled for reuse, provided it does not obstruct access or interfere with construction operations. Unsuitable or excess material shall be disposed of at locations approved by the Engineer.

Erosion and sedimentation control measures shall be implemented before, during, and after excavation to protect adjacent areas and prevent sediment discharge. Temporary or permanent stabilization, such as seeding, mulching, or placing geotextiles, shall be installed as required to maintain trench stability.

If dewatering is necessary, the Contractor shall implement appropriate methods to control water levels while complying with environmental regulations. Discharge of water from dewatering operations shall be directed to approved locations and treated as necessary to prevent sediment contamination.

Upon completion of excavation, the trench shall be inspected by the Engineer to ensure compliance with design specifications. Any deficiencies shall be corrected before acceptance of the work.

MEASUREMENT AND PAYMENT

Class B Trench Excavation will be measured in cubic yards (CY) of material excavated. Payment at the contract unit price per cubic yard includes excavation, handling, and disposal but excludes dewatering, backfilling, sheeting, shoring, and any additional work not specified within this item.

This work consists of the excavation, shaping, and grading of channels, ditches, and drainage ways as shown on the plans or as directed by the Engineer. The purpose of this work is to ensure proper drainage flow, prevent erosion, and provide stability to the designed channel sections. Channel excavation may include the removal of soil, rock, sediment, debris, and other materials necessary to achieve the required grades and cross-sections. The work shall be performed in accordance with the **Massachusetts Department of Transportation (MassDOT) Standard Specifications**, project plans, and all applicable environmental regulations.

MATERIALS AND EQUIPMENT

No specific materials are required for this item. However, all excavation work must be performed in a manner that minimizes disturbance to adjacent areas and prevents contamination of waterways. Any required erosion control measures, such as silt fencing, sediment barriers, or turbidity curtains, shall comply with MassDOT standards and be installed as directed.

If unsuitable materials are encountered within the excavation limits, they shall be removed and replaced as specified in the contract documents. Excavated material that meets project requirements may be reused as embankment or backfill; otherwise, it shall be disposed of in accordance with the project specifications.

The following equipment may be used for channel excavation, depending on site conditions and project requirements:

- **Excavators** (tracked or wheeled) for general excavation and shaping of channels
- **Bulldozers** for grading and pushing materials
- **Backhoes** for smaller excavation areas or working in confined spaces
- **Dump trucks** for hauling excavated materials to designated disposal or reuse locations
- **Graders** for final shaping and smoothing of channel slopes
- **Skid steers** for minor excavation and material handling in restricted areas
- **Pumps and dewatering equipment** if water removal is necessary during excavation

All equipment shall be in good working condition, suitable for the intended work, and operated by qualified personnel. The Contractor shall ensure that equipment use does not cause excessive ground disturbance or environmental damage.

CONSTRUCTION METHODS

Prior to excavation, the Contractor shall review the plans and confirm the required channel alignment, cross-section, and grades. Any deviations must be approved by the Engineer before proceeding with excavation.

Excavation shall be performed using appropriate equipment to achieve the specified channel depth, width, and slope. Care shall be taken to avoid over-excavation, which could lead to instability or erosion. If over-excavation occurs, the Contractor shall restore the area to the specified grade using approved material at no additional cost to the project.

Excavated material shall be managed in accordance with the contract documents. If suitable, material may be stockpiled for reuse, provided it does not obstruct drainage flow or interfere with construction

operations. Unsuitable or excess material shall be disposed of at locations approved by the Engineer. Erosion and sedimentation control measures shall be implemented before, during, and after excavation to protect adjacent water resources and prevent sediment discharge. Temporary or permanent stabilization, such as seeding, mulching, or riprap placement, shall be installed as required to ensure channel stability.

If dewatering is necessary, the Contractor shall implement appropriate methods to control water levels while maintaining compliance with environmental regulations. Discharge of water from dewatering operations shall be directed to approved locations and treated as necessary to prevent sediment contamination.

Upon completion of excavation, the channel shall be inspected by the Engineer to ensure compliance with the design specifications. Any deficiencies shall be corrected before acceptance of the work.

MEASUREMENT AND PAYMENT

Channel excavation will be measured by the number of cubic yards (CY) of material excavated and satisfactorily disposed of or reused within the designated project limits. Measurement shall be based on pre- and post-excavation surveys or other approved methods determined by the Engineer.

Payment will be made at the contract unit price per cubic yard, which shall include all labor, equipment, excavation, hauling, disposal, and incidental costs associated with completing the work. No additional payment will be made for dewatering, over-excavation, or corrective measures required due to improper excavation practices.

ITEM 144.**CLASS B ROCK EXCAVATION****CY**

The work under this item consists of the removal and disposal of Class B rock encountered during excavation for structures such as bridges, culverts, pipes, foundations, retaining walls, and other substructure elements. Class B Rock Excavation includes:

- Boulders measuring 1 cubic yard or more
- Solid rock requiring blasting or breaking by hand or mechanical tools before removal
- Masonry from existing drainage structures, reinforced concrete pavements, and bridge substructures

The contractor shall conduct excavation in a manner that prevents damage to adjacent structures and utilities.

EQUIPMENT

- Hydraulic breakers, jackhammers, or mechanical rock splitters
- Excavators with rock buckets or hydraulic hammers
- Blasting equipment (if permitted)
- Dump trucks for material hauling
- Safety barriers and dust suppression equipment.

MATERIALS

- Controlled blasting agents (if required and approved)
- Backfill material (crushed stone, gravel borrow, or approved alternatives)
- Protective sheeting and shoring (if required)

CONSTRUCTION METHODS

- Site Preparation
 - Identify and mark rock excavation areas per project plans.
 - Implement safety measures for blasting (if required) following state and federal regulations.
- Rock Removal
 - Remove boulders and rock using mechanical methods or controlled blasting.
 - Minimize over-excavation beyond specified limits.
- Disposal of Excavated Material
 - If approved, reuse excavated rock for embankments or erosion control.
 - Otherwise, haul and dispose of rock in designated areas.
- Backfilling
 - Replace removed rock with suitable backfill material and compact in layers.

METHOD OF MEASUREMENT

- Measured in cubic yards (CY) in its original position using cross-section calculations.
- Payment is limited to the specified excavation limits; any additional excavation for contractor convenience will not be measured.

PAYMENT

- Payment includes all labor, materials, equipment, and disposal costs.
- If controlled blasting, sheeting, or additional dewatering is required but not a separate bid item, it will be considered incidental to this item.

This work includes the removal and disposal of existing drainage structures, including but not limited to catch basins, manholes, drop inlets, and other associated appurtenances. Excavation required to access and remove the structure is included in this item; however, backfilling of the resulting void is not included and will be paid for under the appropriate contract item. The removal process shall be conducted in a manner that minimizes disruption to surrounding infrastructure and maintains site stability.

MATERIALS AND EQUIPMENT

No specific materials are required for this item. All work shall be performed in compliance with environmental and safety regulations to prevent damage to adjacent structures, utilities, and roadways. If erosion control measures such as silt fencing, sediment barriers, or temporary stabilization are required, they shall be installed in accordance with MassDOT standards.

The following equipment may be used for drainage structure removal, depending on site conditions and project requirements:

- Excavators (tracked or wheeled) for structure excavation and removal
- Backhoes for smaller excavation areas or confined spaces
- Jackhammers or hydraulic breakers for dismantling concrete or masonry structures
- Dump trucks for hauling removed materials to approved disposal sites
- Skid steers for material handling in restricted areas
- Cranes or lifting devices for removal of large precast structures
- Pumps and dewatering equipment if water removal is necessary before structure removal

All equipment shall be in good working condition, suitable for the intended work, and operated by qualified personnel. The Contractor shall ensure that equipment use does not cause excessive ground disturbance or environmental damage.

CONSTRUCTION METHODS

Prior to removal, the Contractor shall verify the location, type, and dimensions of the existing drainage structure. Any discrepancies between site conditions and contract documents shall be reported to the Engineer before proceeding.

Excavation shall be performed carefully to expose the drainage structure without damaging adjacent utilities, pavement, or other infrastructure. When necessary, structures shall be dismantled in sections to facilitate safe removal. If portions of the structure are below the groundwater table, dewatering methods shall be employed to allow for controlled removal.

Removed materials shall be transported to an approved disposal site unless otherwise specified for salvage or reuse. The Contractor is responsible for ensuring that disposal complies with all applicable environmental regulations. The excavation left by the removed structure shall be secured to prevent hazards until backfill operations commence under a separate contract item.

Erosion and sedimentation control measures shall be implemented before, during, and after removal to protect adjacent areas and prevent sediment discharge. If required, temporary stabilization methods, such as seeding, mulching, or placing geotextiles, shall be installed as directed by the Engineer.

Upon completion, the area shall be inspected to ensure all components of the drainage structure have been fully removed and that the site is left in a safe and stable condition. Any deficiencies shall be corrected before acceptance of the work.

MEASUREMENT AND PAYMENT

Drainage Structure Removed will be measured per each (EA) drainage structure removed. Payment at the contract unit price includes all excavation, removal, handling, and disposal of the structure and its appurtenances. Backfilling of the excavation left by the removal of the structure is not included in this item and shall be paid for under a separate contract item.

ITEM 152.**PROCESSED GRAVEL****CY**

This work includes furnishing, delivering, stockpiling, placing, compacting, and testing processed gravel for use as a subbase material. Processed gravel consists of crusher-run gravel composed of hard, durable stone and coarse sand, free from loam, clay, surface coatings, and deleterious materials. The work also includes surveying to ensure proper placement and disposal of excess materials.

MATERIALS AND EQUIPMENT

The material shall conform to the gradation and quality requirements specified in Table M1.03.1-1.

Gradation Limitations for Processed Gravel

Sieve Size	Minimum Percent by Weight Passing Through	Maximum Percent by Weight Passing Through
3 in.	100	
1 ½ in.	70	100
¾"	50	85
No. 4	30	60
No. 200	0	10

The coarse aggregate shall have a maximum wear percentage of 50 as determined by the Los Angeles Abrasion Test. The approved source of bank-run gravel shall be mechanically processed to ensure uniform gradation. The material shall be stockpiled in a manner that minimizes segregation and contamination.

The use of Processed Glass Aggregate (PGA) meeting the requirements of M2.01.8 may be blended homogeneously with processed gravel at a maximum rate of 10% by mass, provided that the subbase material will not be exposed.

The following equipment may be used for material processing and installation:

- Crushers and screening plants for producing processed gravel
- Loaders and conveyors for stockpiling and loading operations
- Dump trucks for material transportation to the site
- Motor graders for spreading and shaping the gravel subbase
- Compaction equipment such as vibratory rollers and plate compactors
- Surveying instruments to verify thickness and elevations

All equipment shall be in good working condition and operated by qualified personnel to ensure compliance with specifications.

CONSTRUCTION METHODS

Prior to material placement, the subgrade shall be prepared and inspected to ensure it is free of unsuitable material and meets the required compaction standards. Processed gravel shall be delivered and stockpiled in a manner that prevents segregation of particle sizes.

Installation shall be performed in uniform layers of the specified thickness, with each layer compacted to 95 percent of the maximum dry density as determined by the Standard AASHTO Test Designation T 99, Compaction Test Method C, at optimum moisture content. Loose lifts shall not exceed 12 inches before compaction.

The gravel shall be spread using a motor grader to achieve the desired profile and elevation. Water may be added as necessary to aid in compaction and prevent excessive dust generation. Compaction shall be achieved using vibratory rollers or other approved methods until the material reaches the specified density. Field density tests shall be conducted at intervals determined by the Engineer to confirm compliance with project specifications.

If unsuitable material is encountered, it shall be removed and replaced as directed by the Engineer. Any excess processed gravel shall be disposed of in accordance with contract requirements.

MEASUREMENT AND PAYMENT

Processed Gravel will be measured in cubic yards (CY) based on the volume of material installed and compacted in place. Payment at the contract unit price includes material procurement, testing, delivery, stockpiling, placement, compaction, surveying, and disposal of excess material. Additional work, such as subgrade preparation or removal of unsuitable material, will be paid under separate contract items.

ITEM 156.**CRUSHED STONE****TON**

This work shall consist of furnishing, placing, and compacting crushed stone in accordance with the plans, specifications, and as directed by the Engineer. Crushed stone shall be used for various applications, including but not limited to:

- Noise Barrier Foundations (MassDOT Spec M2.01.2)
- Pipe Bedding (MassDOT Spec M2.01.4)
- Revetment Foundations (MassDOT Spec M2.01.2)

EQUIPMENT

The Contractor shall provide all necessary equipment to ensure proper placement and construction, including but not limited to:

- Excavators (tracked or wheeled) for placement and grading.
- Dump Trucks for material transport and delivery.
- Mechanical or Pneumatic Tampers for compaction where required.
- Loaders & Skid Steers for handling and spreading materials.

MATERIALS

Crushed stone shall meet the requirements of Division III Materials Specifications for the intended application. The material shall be durable, clean, and free from organic matter or deleterious substances.

CONSTRUCTION METHODS

1. Placement & Depth Requirements
 - The minimum total depth of crushed stone shall be 6 inches.
 - For depths up to 1 foot, compaction is not required.
 - For depths greater than 1-foot, crushed stone shall be placed in 6-inch lifts and compacted using mechanical or pneumatic tampers until the stones are firmly interlocked and the surface is unyielding.

METHOD OF MEASUREMENT

- Crushed stone will be measured by the ton, complete in place.
- If stone screenings are used, the volume shall be determined based on a conversion of 2,700 lbs per cubic yard.
- The Engineer shall verify and countersign all weight slips upon delivery. No payment will be made for materials without countersigned weight slips.

PAYMENT

- Crushed stone will be paid for at the contract unit price per ton, complete in place.
- The contract unit price shall include all labor, materials, equipment, transportation, and incidental costs necessary to complete the work.
- No additional compensation will be provided for haul distance or material source.

ITEM 160.1**CONTROLLED LOW-STRENGTH MATERIAL - MANUAL
EXCAVATABLE (<= 100 PSI)****CY**

This item consists of furnishing, placing, and curing a flowable fill material that achieves a maximum compressive strength for Items above to allow for future manual/mechanical excavation or non-excavatable situations. CLSM is used for trench backfill, utility bedding, and structural fill applications where low-strength, self-compacting material is required.

MATERIALS AND EQUIPMENT

The CLSM mixture shall conform to MassDOT Section M4.08.0 and consist of cementitious material, fine aggregate, water, and optional admixtures. The mix shall be designed to achieve the specified strength and maintain flowability.

The following equipment may be used:

- Concrete mixers or mobile batch plants for uniform mixing
- Pumps or chutes for placement in trenches or other confined areas
- Compaction equipment is generally not required, as the material is self-leveling

CONSTRUCTION METHODS

Before placement, the area shall be cleared of debris and standing water. The material shall be poured or pumped into place in a controlled manner to avoid segregation. CLSM is self-leveling and requires no mechanical compaction. The surface shall be protected from premature drying or excessive water accumulation. Curing time is project-dependent, but CLSM should be allowed to set before applying additional loads.

MEASUREMENT AND PAYMENT

CLSM will be measured in cubic yards (CY) based on the volume placed. Payment includes all labor, materials, equipment, and incidental costs.

This work shall consist of shaping, trimming, compacting, and finishing the subgrade; grading and finishing all unpaved shoulders and slopes; and preparing all areas for topsoil, loam, riprap, or slope paving as shown on the plans or as directed by the Engineer. All work shall conform to the lines, grades, and typical cross sections specified in the contract.

EQUIPMENT

The Contractor shall provide all necessary equipment to achieve the specified grading and compaction, including but not limited to:

- Motor graders for shaping and trimming the subgrade
- Vibratory rollers and static rollers for compaction
- Mechanical tampers for compacting areas inaccessible to rollers
- Excavators and bulldozers for removal and placement of materials

MATERIALS

Material specifications shall conform to the requirements of:

- Special Borrow for Special Borrow Material (MassDOT M1.02.0) for embankment areas and unsuitable material replacement
- Gravel Borrow (MassDOT M1.03.0) for subbase in applicable areas

CONSTRUCTION METHODS

1. Subgrade Preparation:
 - All soft or spongy material below the subgrade shall be removed to a depth determined by the Engineer and replaced with suitable material.
 - In embankment areas, material within 2 feet below the subgrade shall conform to MassDOT M1.02.0 requirements, contain no stone larger than 6 inches, and be compacted in 8-inch layers.
 - In cut sections, if existing soil within 2 feet of the subgrade exceeds 14% passing the No. 200 sieve, it shall be excavated and replaced with MassDOT M1.02.0 Special Borrow.
2. Compaction & Tolerances:
 - The subgrade shall be compacted per MassDOT 150.60 (General) and 150.62 (Embankment Construction).
 - The finished subgrade shall conform to the required cross section with a tolerance of $\pm\frac{1}{2}$ inch over 50-foot sections while maintaining the required crown.
 - Areas inaccessible to rollers shall be compacted using mechanical tampers or other approved methods.

METHOD OF MEASUREMENT

Fine grading and compacting of the subgrade shall be measured by the square yard. This includes all work necessary to shape and compact the subgrade in accordance with contract documents.

PAYMENT

- Fine Grading and Compacting – Subgrade Area shall be paid at the contract unit price per square yard.
- Excavation of unsuitable material below subgrade will be paid under MassDOT 120: Excavation.
- Special Borrow or Gravel Borrow required to replace unsuitable material will be paid under their respective MassDOT bid items.
- No separate payment will be made for shaping and compacting the base for replacement material.

<u>ITEM 201.</u>	<u>CATCH BASIN</u>	<u>EA</u>
<u>ITEM 201.3</u>	<u>SPECIAL CATCH BASIN</u>	<u>EA</u>
<u>ITEM 202.</u>	<u>MANHOLE</u>	<u>EA</u>
<u>ITEM 202.2</u>	<u>MANHOLE (9 TO 14 FOOT DEPTH)</u>	<u>EA</u>
<u>ITEM 206.</u>	<u>DROP INLET, TYPE A</u>	<u>EA</u>

This work consists of furnishing and constructing manholes, inlets, and basins in accordance with the MassDOT Standard Specifications and as shown on the plans or as directed by the Engineer. Work includes necessary excavation, placement of materials, construction of structures, and installation of castings.

EQUIPMENT

The Contractor shall provide all necessary equipment to ensure proper excavation, placement, and construction, including but not limited to:

- Excavators and Backhoes: For trench and structure excavation.
- Cranes or Lifting Equipment: For handling precast structures and heavy castings.
- Compaction Equipment: Vibratory plate compactors, rollers, or rammers for backfilling operations.
- Concrete Mixers and Pumps: If cast-in-place concrete is required.
- Masonry Tools: For laying brick and block, including trowels, mortar mixers, and pointing tools.
- Surveying Equipment: To establish lines, grades, and alignment of structures.
- Safety Equipment: Shoring systems, trench boxes, and PPE for compliance with OSHA trench safety requirements.

MATERIALS

All materials shall conform to the requirements of MassDOT Division III – Materials, including:

- Concrete: Subsection M4.02.16 (Precast) or 901 (Cast-in-Place)
- Brick and Blocks: Subsections M4.05.1 (Concrete Blocks) and M4.05.2 (Clay Brick)
- Mortar: Subsection M4.02.15
- Reinforcement: Subsection M8.01.1
- Castings (Iron/Steel): Subsections M8.03.0 (Iron) and M8.03.2 (Steel)
- Weep Hole Drainage: Subsection M2 (Aggregates)

CONSTRUCTION METHODS

1. Excavation & Preparation
 - Excavation shall follow Subsection 140 for structural excavation.
 - Base preparation shall ensure a stable foundation.
2. Structure Construction
 - Brick and Blocks: Pre-soaked before placement; mortar-filled joints $\leq \frac{1}{8}$ inch.
 - Precast Units: Mortar joints wetted and sealed before placement.
 - Weep Holes: Installed per plan requirements with crushed stone drainage.
3. Placement of Castings
 - Frames and grates set in full mortar beds, adjusted as needed for traffic or drainage.

- Final casting elevation set after base course paving.
- 4. Backfilling
 - Conforms to Subsections 120.60 & 150.64, ensuring proper compaction.
 - If borrow material is required, it will be paid separately.

METHOD OF MEASUREMENT

1. Catch Basins, Manholes, and Drop Inlets (Types C and D)
 - Measured based on a standard unit depth of 6.5 feet, from the top of the grate or cover to the floor (for basins and inlets) or the invert (for manholes).
 - If the measured depth exceeds 6.5 feet but is ≤ 9 feet, the number of units paid will be proportional to the measured depth.
 - Depths less than 6.5 feet will be counted as one full unit.
2. Drop Inlets (Types C and D)
 - Measured based on a standard unit depth of 4 feet 10 inch, from the top of the grate or cover to the floor.
 - If the measured depth exceeds 4 feet 10 inch but is ≤ 9 feet, the number of units paid will be proportional to the measured depth.
3. Manholes Over 9 Feet in Depth
 - For depths between 9 and 14 feet, the standard unit depth for measurement is 9 feet.
 - For depths between 14 and 18 feet, the standard unit depth for measurement is 14 feet.
 - If bid items for Manholes (9-14 ft Depth) or Manholes (14-18 ft Depth) are not included in the contract, all structures will be measured using the 6.5 ft unit depth.
4. Special Manholes
 - Measured as complete units, regardless of depth.
5. Gutter Inlets
 - Each gutter inlet is counted as one full unit.
6. Frames, Grates, and Covers
 - Measured per complete unit, furnished and delivered to the site.

PAYMENT

- Payment is at the contract unit price per each (EA) structure, including:
 - Excavation, construction, castings, and installation.
 - Weep hole drainage stone included in unit price.
 - Concrete collars included.
- Additional excavation (below the proposed bottom of structure to obtain a stable foundation) paid as Class B Trench Excavation.
- Castings adjusted during construction paid under Item 220 (Adjustment of Drainage Structures).

- Borrow material for backfill, if required, paid separately per cubic yard or ton.
- Frames and grates or covers will be paid for at the contract unit price each under the items for furnishing and delivering new frames and grates or covers.
- Hoods shall be paid at the contract unit price each and shall include furnishing and installation of the hood.

<u>ITEM 220.</u>	<u>DRAINAGE STRUCTURE ADJUSTED</u>	<u>EA</u>
<u>ITEM 221.</u>	<u>FRAME AND COVER</u>	<u>EA</u>
<u>ITEM 222.1</u>	<u>FRAME AND GRATE – MASSDOT CASCADE TYPE</u>	<u>EA</u>
<u>ITEM 222.2</u>	<u>FRAME AND GRATE – MASSDOT DROP INLET</u>	<u>EA</u>
<u>ITEM 224.12</u>	<u>12 INCH HOOD</u>	<u>EA</u>

This work consists of adjusting, rebuilding, remodeling, or changing the type of existing drainage structures, including basins, manholes, and inlets, to meet new grades and alignments as per MassDOT specifications. The work includes removal and replacement of masonry, resetting or installing new castings, and ensuring compliance with contract plans and engineer directives.

EQUIPMENT

The Contractor shall provide all necessary equipment to ensure proper excavation, placement, and construction, including but not limited to:

- Excavators and backhoes for structure excavation and removal
- Pneumatic or hydraulic breakers for masonry removal
- Masonry saws and hand tools for precise cutting
- Plate compactors and mechanical tampers for backfilling
- Concrete mixers and vibrators for masonry construction
- Lifting equipment for resetting frames and grates

MATERIALS

All materials shall conform to MassDOT specifications, including:

- Concrete and Masonry Materials: Compliant with Subsection 201
- Gravel Borrow for Backfill: MassDOT M1.03.0
- Frames and Grates: MassDOT standard types
- Castings and Covers: As required per contract specifications

CONSTRUCTION METHODS

- Adjustment of Drainage Structures (≤ 6 inches change)
 - Remove masonry to a depth directed by the Engineer.
 - Construct new masonry to match proposed grades and alignments.
 - Reset casting with a concrete collar and surface with a minimum of 3 inches of hot mix asphalt.
- Rebuilding of Structures
 - Remove deteriorated masonry and castings.
 - Construct new masonry, including a brick invert where necessary.
 - Backfill with suitable material and compact per MassDOT specifications.
- Remodeling of Structures (> 6 inches change)
 - Remove sloped and vertical masonry as needed.
 - Construct new masonry in accordance with the proposed design.
- Change in Structure Type

- Remove existing structure components as required.
 - Construct new masonry and install appropriate castings.
- Protection of Work
 - Contractor is responsible for protecting castings from damage.
 - Damaged castings shall be replaced at the Contractor's expense.
 - Proper documentation and inventory of existing castings shall be maintained.

METHOD OF MEASUREMENT

- Except for Drainage Structure Rebuilt, which will be measured per vertical foot of rebuilt masonry, all items will be measured per each unit.

PAYMENT

- Payment will be made per unit of measurement

All work shall conform to MassDOT specifications and contract documents.

ITEM 227.4**MASONRY PLUG****SF**

This work consists of removing, relaying, plugging, and stacking pipes as per MassDOT specifications. Pipes may be adjusted to new alignments, plugged to seal ends, or stacked for reuse or removal. The Contractor shall ensure proper excavation, handling, and backfilling for compliance with contract plans and engineer directives.

EQUIPMENT

- Excavators and backhoes for pipe removal and trenching
- Pipe lifting and handling equipment
- Masonry tools for plugging pipe ends
- Trench shoring equipment as required
- Compactors for backfilling operations

MATERIALS

All materials shall conform to MassDOT specifications, including:

- Pipe Joints: Compliant with MassDOT Subsection 230.40
- Masonry Plugs: Brick and mortar for watertight sealing
- Backfill Materials: Compliant with MassDOT Subsection 150.64

CONSTRUCTION METHODS

1. Removal of Pipe
 - Excavate a trench of sufficient width and depth to prevent damage to the pipe.
 - Open joints carefully and remove pipe in its original sectional lengths.
 - Contractor shall replace any damaged pipe at their expense.
2. Relaying of Pipe
 - Follow methods outlined in MassDOT Subsections 230.60 to 230.63.
 - For corrugated metal pipes, furnish and install new collars and bolts.
 - Repair any coatings as directed.
3. Masonry Plugs for Pipe Ends
 - Construct watertight plugs with brick and mortar.
 - Plug thickness shall be at least equal to the inside diameter of the pipe.
4. Stacking of Pipes
 - Remove, handle, and stack pipes at a location convenient for owner removal.
 - Contractor is responsible for protection of stacked pipes.
 - Any damaged or lost pipes must be replaced at the Contractor's expense.
5. Backfilling of Trenches
 - Backfill trenches as per MassDOT Subsection 150.64.
 - If excavated material is unsuitable, furnish and place borrow material as required.

METHOD OF MEASUREMENT

- Pipe Removed and Relaid: Measured per linear foot of pipe relaid.

- Masonry Plugs for Pipe Ends: Measured per square foot of cross-sectional area.
- Pipe Removed and Stacked: Measured per linear foot of pipe removed and stacked.
- Trench Excavation (>5 ft depth) and Rock Excavation: Measured per MassDOT Subsection 148.80.

PAYMENT

- Payment will be made per unit of measurement

All work shall conform to MassDOT specifications and contract documents.

<u>ITEM 242.12</u>	<u>12 INCH REINFORCED CONCRETE PIPE FLARED END</u>	<u>EA</u>
<u>ITEM 250.04</u>	<u>4 INCH POLYVINYL CHLORIDE SANITARY SEWER PIPE</u>	<u>FT</u>
<u>ITEM 250.10</u>	<u>10 INCH POLYVINYLCHLORIDE SANITARY SEWER PIPE</u>	<u>FT</u>
<u>ITEM 252.10</u>	<u>10 INCH CORRUGATED PLASTIC PIPE</u>	<u>FT</u>
<u>ITEM 252.12</u>	<u>12 INCH CORRUGATED PLASTIC PIPE</u>	<u>FT</u>
<u>ITEM 252.15</u>	<u>15 INCH CORRUGATED PLASTIC PIPE</u>	<u>FT</u>
<u>ITEM 252.18</u>	<u>18 INCH CORRUGATED PLASTIC PIPE</u>	<u>FT</u>

This work consists of constructing culverts, storm drains, sewer pipes (hereinafter referred to as "Pipe"), and flared end sections in accordance with these specifications. All work must conform to the lines and grades shown on the plans or as established by the Engineer.

CONSTRUCTION METHODS

1. Bedding Pipes
 - Pipe bedding must conform closely to the lower 10% of the pipe's shape.
 - Recesses must be excavated for bells of bell-and-spigot pipes.
 - Pipes shall be laid with a firm bearing throughout their length, with bell ends facing uphill.
2. Pipe Joints
 - Concrete Pipe: Joints shall be caulked with jute or oakum and sealed with cement mortar. The invert must remain smooth and obstruction-free.
 - Corrugated Metal & Plastic Pipe: These shall be joined firmly with an approved coupling, ensuring a smooth internal grade.
 - Watertight Joints: Flexible rubber gaskets (M5.01.0) must be used. Any alternative joint design requires Engineer approval.
 - Open Joints: Certain joints may be left open to allow groundwater entry, as directed.
3. Structural Plate Pipe and Pipe-Arch
 - Excavation – See Subsection 140.60.
 - Bedding – Pipe or pipe-arch structures must be placed on a properly shaped foundation to maintain grade. Arches must rest on a galvanized channel embedded in the substructure.
 - Erection – Structures must be assembled per the manufacturer's instructions, either in place or adjacent to the final location. All bolts must be effectively tightened.
 - Elongation – Pipes must be fabricated with a 5% vertical diameter increase and a 5% horizontal diameter decrease.
 - Coating – Pipes must be coated with bituminous material (M7.04.01) before placement.
 - Backfilling – Backfill must comply with Subsections 120.60 and 150.64.
 - Flared End Sections – Must be accurately aligned on a prepared bed or compacted gravel fill, as directed by the Engineer.
4. Field Testing of Corrugated Plastic Pipe

- Maximum vertical deflection shall not exceed 5% of the base inside diameter.
- At least 20% of each pipe size must be tested. The Engineer may require 100% testing if failures occur.
- Deflection tests shall be performed no sooner than 30 days after installation.

Testing Methods

1. Mandrel Test (for pipes \leq 24 inches):
 - A rigid mandrel (minimum 9 legs) must be pulled through the pipe.
 - Mandrels must be steel and stamped with their size.
2. Video Inspection (for pipes $>$ 24 inches):
 - Pipes must be inspected with a mobile video camera and recorded for the Engineer.
3. Hand Measurement (for pipes $>$ 36 inches):
 - Must be conducted in the presence of the Engineer.

Pipes exceeding allowable deflection limits must be uncovered and, if undamaged, may be reinstalled. Damaged pipes must be removed.

5. Strutting of Pipe

- Strutting must be used as necessary to maintain pipe integrity.
- Costs associated with strutting are incidental to the item.

METHOD OF MEASUREMENT

- Pipes shall be measured in place, with payment based on actual installed length.
- Measurement limits:
 - Closed Structures: End of pipe at the inside face of the wall.
 - Masonry Headwalls: End of pipe at the face of the headwall.
 - Corrugated Metal Pipe Bends: Measured along the centerline.
 - Flared Ends & Metal End Sections: Measured per unit each.
- Trench Excavation & Rock Excavation: Measured per Subsection 140.80.
- Corrugated Plastic Pipe Testing: Testing costs are incidental to the item.

PAYMENT

- Pipe Culverts, Drains, and Sewers: Paid per linear foot, complete in place.
- Corrugated Plastic Pipe: Includes Gravel Borrow Type D backfill.
- Reinforced Concrete Pipe Flared Ends & Metal End Sections: Paid per unit each.
- Trench Excavation & Rock Excavation (depth $>$ 5 ft): Paid under Class B Trench Excavation and Class B Rock Excavation.

- Trench Excavation & Backfill (≤ 5 ft depth): Included in pipe items.
- Masonry Ends & Foundations: Paid per cubic yard.
- Gravel Borrow: Paid per MassDOT Subsection 150: Embankment.

This work includes the construction of subdrains using pipe, filter fabric, and crushed stone filter material. All work shall comply with the plans, specifications, and the lines and grades established by the Engineer.

EQUIPMENT

The Contractor shall use suitable excavation equipment, compaction equipment, and other necessary tools to ensure proper installation of subdrains in accordance with project specifications.

MATERIALS

All materials shall conform to MassDOT Division III, Materials, as specified below:

- Perforated Corrugated Metal Pipe – M5.03.1
- Porous Concrete Pipe – M5.03.11
- Crushed Stone – M2.01.5
- Slot-Perforated Corrugated Plastic Pipe – M5.03.9
- Geotextile Fabric for Subsurface Drainage – M9.50.0

CONSTRUCTION METHODS**Excavation**

- The trench shall be excavated to the depth shown in the plans or to an impervious layer if directed.
- If no structure is placed at the ends of the pipe, the trench shall extend 3 feet beyond the pipe termination.
- Excavation shall only proceed as directed by the Engineer.
- Trench Width:
 - For pipes greater than 12 inches in diameter: trench width = pipe diameter + 1 foot.
 - For pipes 12 inches or less in diameter: trench width = 2 feet.
- Rock Excavation: No rock shall remain within 6 inches of any portion of the pipe.

Pipe Installation

- Filter Fabric Placement:
 - Filter fabric shall be placed along the bottom and sides of the trench before installing the pipe.
 - Adjoining fabric sections shall overlap by at least 2 feet.
- Pipe Placement:
 - Perforated subdrain pipe shall be installed with the perforations facing upward.

Backfilling the Drain Trench

- Pipe Bedding: The pipe shall rest on a 2-inch bed of crushed stone.
- Backfill Material:
 - The trench, including the 3-foot extended portion beyond the pipe ends, shall be filled with 0.5-inch or 0.75-inch crushed stone.
 - Backfill shall be clean and free of debris from 1 inch below the pipe flow line to the top of the trench.

Protection of Inlets and Outlets

- All inlets and open outlets of subdrains shall be covered with a #23 gauge galvanized wire screen (1/4-inch mesh) securely fastened to the pipe.

METHOD OF MEASUREMENT

- Subdrain Pipe: Measured in place, with payment based on the total installed length, plus an additional 3 feet per open end.
- Excavation:
 - Trench excavation deeper than 5 feet will be measured under 140.80: Class B Trench Excavation.
 - Rock excavation will be measured under 140.80: Class B Rock Excavation.

PAYMENT

- The contract unit price per linear foot of subdrain installation shall include:
 - Excavation
 - Pipe
 - Filter fabric
 - Crushed stone
 - Complete installation, satisfactory to the Engineer
- Trench excavation exceeding 5 feet and rock excavation will be paid separately under 142. Class B Trench & 144. Class B Rock Excavation, respectively.

This work consists of constructing waterways in accordance with these specifications and in close conformity with the lines and grades shown on the plans or as established by the Engineer.

EQUIPMENT

- The Contractor shall use suitable excavation equipment, compaction equipment, and other necessary tools to ensure proper installation of subdrains in accordance with project specifications.

MATERIALS

- Materials shall meet the requirements specified in the following Subsections of Division III, Materials:
 - Gravel Borrow – M1.03.0 Type B
 - Hot Mix Asphalt – M3.07.00
 - Cement Concrete – M4.02.00
 - Preformed Expansion Joint Filler – M9.14.0
 - Welded Steel Wire Fabric – M8.01.2
 - Load Transfer Assembly – M8.14.0
 - Lubricant – M8.14.0

CONSTRUCTION METHODS

- General
 - Excavation – See MassDOT Section 140.60: General.
 - Foundation – Gravel may be placed in one layer and compacted (See MassDOT Section 401.60: Gravel Sub-base).
- Hot Mix Asphalt Waterways
 - The bituminous mixture shall be spread in two courses on the prepared gravel base and compacted by tamping or rolling.
- Cement Concrete Paving (Waterways)
 - Cement concrete shall be mixed, placed, finished, protected, and cured in accordance with MassDOT Subsection 901: Cement Concrete. However, consolidation of the cement concrete in paved waterways may be accomplished by rodding instead of vibration.

METHOD OF MEASUREMENT

- The actual area of exposed surfaces will be measured for paved waterways.

PAYMENT

- The paving of waterways, including construction of a gravel foundation, fine grading, formwork (if required) and compacting, will be paid for at the contract unit price per square yard under the respective item for Hot Mix Asphalt or Cement Concrete Paving, complete in place.

- Excavation (excluding rock) will be paid at the contract unit price per cubic yard under the item for Class A Trench Excavation (Item 141.)
- Rock excavation will be paid at the contract unit price per cubic yard under the item for Class B Rock Excavation (Item 144.), if not previously paid under another rock excavation item.

This work consists of furnishing, placing, and securing erosion control jute matting on waterways and slopes steeper than 3:1 to prevent erosion, promote vegetation establishment, and stabilize disturbed areas. The work shall be performed in accordance with these specifications and as directed by the Engineer.

EQUIPMENT

- The Contractor shall provide all necessary equipment for handling, transporting, cutting, and installing jute matting. Equipment shall include, but not be limited to:
 - Hand tools for securing the matting (staplers, mallets, rakes, etc.).
 - Sufficient means for soil preparation, such as light grading equipment or hand rakes.
 - Watering equipment if necessary to assist in vegetation establishment.

MATERIALS

- Jute matting shall be an open-weave, biodegradable fabric made from 100% jute fiber, meeting the following requirements:
 - Weight: 0.9 to 1.5 lbs/square yard.
 - Openings: Approximately 50% open area for seed infiltration.
 - Roll width: Minimum 4 feet.
 - Length: As required for project needs.
 - Staples: Biodegradable or metal staples, minimum 6 inches in length, or as required to secure matting.

CONSTRUCTION METHODS

- Site Preparation:
 - The area to receive jute matting shall be properly graded and free of debris, large clumps of soil, and stones greater than 2 inches in diameter. Seeding shall be completed prior to matting installation unless otherwise specified.
- Matting Installation:
 - Jute matting shall be rolled downslope or along the waterway in the direction of water flow.
 - The upper end of the matting shall be buried in a 6-inch trench, secured with staples, and backfilled.
 - Adjoining mats shall overlap a minimum of 6 inches, with the upstream mat overlapping the downstream mat.
 - Matting shall be secured using staples at a maximum of 3 feet apart along edges and at 2-foot intervals in the center. Additional staples may be required in high-flow areas.
- Inspection and Maintenance:
 - The Contractor shall inspect the installed matting after each significant rainfall and resecure or replace any displaced sections.

METHOD OF MEASUREMENT

- Erosion control jute matting will be measured by the square yard of material satisfactorily placed and accepted. Overlaps and trenching will not be measured separately for payment.

PAYMENT

- The accepted quantity of erosion control jute matting will be paid for at the contract unit price per square yard, which shall include all labor, materials, equipment, and incidental costs necessary to complete the work.

This work will be specified as a total processed depth up to 8 inches, depths between 8 - 12 inches and depths 12 -16 inches as appropriate. This work consists of cutting of the existing asphalt mat, pulverizing the existing asphalt mixing the pulverized asphalt mat with the existing subgrade, existing base course, or combination thereof, to the specified depth, grading and compacting the mixed material, in accordance with and at locations as shown directed by the Engineer.

CONSTRUCTION METHODS AND EQUIPMENT

The existing asphalt mat shall be cut at neat lines as shown in the plans by the use of a cutting wheel attached to a blade or by another approved method. The existing asphalt mat shall be pulverized, and mixed with the existing subgrade, base course, or combination thereof to a specified depth or as directed by the Engineer, with a self- propelled rotary type mixing machine. Existing asphalt mat thickness and core information will be taken at no cost to the Department, the number and location of the cores shall be as directed by the Resident Engineer.

The mixing machine shall make as many passes as required to uniformly mix the asphalt, subgrade, existing base course, or combination thereof to the required thickness. Mixing of the different materials shall create a homogenous mixture. The particle size of the pulverized asphalt mat shall be a minimum of 99 percent passing the (1-1/2 inch) sieve. When the addition of water is necessary for initial compaction purposes, unless otherwise approved by the Engineer, it shall be added through the mixing machine with the capability to uniformly distribute water through the mixed materials to within 2 percent of the optimum moisture as determined in accordance with AASHTO T-180 Method D. When proper mixing has been accomplished, the mixture shall then be bladed, shaped, wetted or dried, and rolled to meet a minimum of 95 percent of the maximum dry density determined.

In accordance with AASHTO T-180 Method D. Grading equipment used to establish the final surface elevations shall have automatic controls for transverse slope. The transverse slope controls shall be capable of maintaining the final surface within 0.1 percent of the specified slope. Variations from the subgrade plane shall not be more than ¼ inch. The work shall be maintained and tested for conformance to these requirements immediately prior to placing additional pavement layer. Compaction will be measured for the top 8-inch lift of reclaimed materials, and if appropriate for any lift below the top 8-inch lift. Density testing and materials acceptance will apply to each lift of 8 inches or less that is reclaimed and placed on the project.

The maximum length of exposed processed asphalt mat shall be no greater than four miles unless approved by the Engineer. The maximum time a portion of the roadway will be unpaved is three working days unless approved by the Engineer. The exposed longitudinal joint between the existing asphalt mat and the processed mat shall not remain in place for more than one day unless approved by the Engineer or when additional aggregate base course is imported. When additional aggregate base course is imported and placed before processing begins, the full width of the roadway shall be completed daily.

MEASUREMENT AND PAYMENT

Pulverizing of bituminous concrete surfaces will be measured by the actual number of square yards completed.

Payment for work completed shall be at the unit price bid per square yard and shall include full compensation for all tools, machines, and labor.

Payment for these items shall be full compensation for all work necessary to complete the item including cutting of the existing asphalt mat, pulverizing the existing asphalt mat, mixing the pulverized asphalt mat into existing subgrade or base course, wetting, and compacting the mixed pulverized asphalt mat and subgrade and/or base course, blading, shaping, hauling, and water. All additional equipment or labor to process and compact any lift below 8 inches will be included in the bid items as appropriate.

ITEM 460.23
ITEM 460.32

SUPERPAVE SURFACE COURSE - 12.5 (SSC 12.5)
SUPERPAVE INTERMEDIATE COURSE - 19.0 (SIC 19.0)

TON
TON

This work shall consist of producing and placing HMA pavement on DCR parkways, sidewalks, driveways, playing courts, and parking lots. The HMA pavement shall be constructed as shown on the plans and as directed on the prepared or existing base in accordance with these specifications and in close conformity with the lines, grades, compacted thickness, and typical cross section as shown on the plans. The work under these items shall conform to the relevant provisions of 2023 MassDOT Standard Specification under the following sections: 460, 700, Division III M3 and Appendix A. The HMA mixtures and plants shall be MassDOT approved. Resurfacing of roads shall be considered Category "D". Sidewalk, playing courts and parking lots and minor contract items shall be considered Category "E". A QC plan shall be submitted for Category "D" work, but only at the request of the DCR Engineer for Category "E" at no cost to the Department.

Each HMA pavement course placed shall be comprised of one of the Warm Mix mixture types below.

HMA Mixture

Surface Course

SUPERPAVE Surface Course – 9.5 – Playing Court - #8 JMF at 43-45%

SUPERPAVE Surface Course – 9.5

SUPERPAVE Surface Course – 9.5 – Polymer

SUPERPAVE Surface Course – 12.5

SUPERPAVE Surface Course – 12.5 – Polymer

Intermediate Course

SUPERPAVE Intermediate Course – 12.5

SUPERPAVE Intermediate Course – 19.0

Base Course

SUPERPAVE Base Course – 37.5

Leveling Course

SUPERPAVE Leveling Course – 4.75

SUPERPAVE Leveling Course – 9.5

SUPERPAVE Leveling Course – 12.5

(If polymer is to be used, the production facility shall be given advance notice to make sure they have PG 64E-28 liquid asphalt available)

Design Traffic Level

Information below shall be utilized as a guide for determining which approved mix design shall be required for each site. DCR reserves the right to deviate from the below guide when selecting the mix that is chosen for any specific location as they see fit. Deviation to the selected mix designs for any specific location shall be considered upon review of the existing conditions and functional operation of the location for optimization of the final product. Any deviations will be communicated by Resident Engineer during the planning stages.

- Level 1- Sidewalks, patching, driveways, low volume fire access roads, parking lots, and playing

- courts (50 gyrations)
- Level 2 - Secondary Roads and parking lots (75 gyrations)
- Level 3 - High volume, and heavy load roads (75 gyrations and PG64E-28 PGAB)

Control of Grade & Cross Section

The Contractor will provide a longitudinal and transverse reference system, with a maximum spacing of 100 ft, for the purpose of locating and documenting sampling and testing locations and related uses in locations requested by the Engineer. It is the Contractor's responsibility to clearly mark this reference system in the field. Work related to this reference system is incidental and will be included as part of the Contractor's Quality Control system.

The Contractor shall furnish, set, and maintain all line and grade stakes necessary to guide the automated grade control equipment. Where required these control stakes shall be maintained by the Contractor and used throughout the operations, from the grading of the subbase material up to and including the final course of the pavement.

Under normal conditions, where more than one course of HMA is to be constructed, the use of the string line for grade control may be eliminated or discontinued after the construction of the initial course of HMA. For resurfacing projects, where only one course of HMA is to be constructed, the use of the string line for grade control may be eliminated. The use of approved automation may then be substituted for the string line where lines and grades are found to be satisfactory by the Engineer.

Preparation of Curbs, Edging, and Utilities

All curbs or edging shall be installed or reset to the line and grade established on the plans, or as directed by the Resident Engineer if no plans. The surface elevation of all catch basin frames and grates, manholes, utility valve boxes, or other utility structures located in the pavement shall uniformly match the grade and cross-slope of the final pavement riding surface. Adjustment of all curbs, edging, and utilities shall be completed prior to the placement of the HMA Surface Course. Hand placement of HMA along curbs and edging or around utilities after placement and compaction of the Surface Course shall not be permitted.

Preparation of Underlying Surface

HMA mixtures shall be placed only upon properly prepared surfaces that are clean from foreign materials. The underlying surface shall be prepared in accordance with the requirements below, prior to the placement of HMA pavement courses.

A. Subsurface or Reclaimed Base

Prior to the placement of HMA Base Course mixtures, the Contractor shall inspect the prepared subbase or reclaimed base material to ensure that it is in conformance with the required grade, cross-section, and in-place density. Subbase or reclaimed base material that is not in accordance with the plans or specifications shall be reworked or replaced to meet the applicable requirements of 2023 Commonwealth of Massachusetts Department of Transportation Standard Specifications for Highways and Bridges sections: 460, 700, Division III M3 and Appendix A. Subsection 401: Gravel Sub-Base, Subsection 402: Dense Graded Crushed Stone for Sub-Base, or Subsection 403: Reclaimed Pavement for Base Course and/or Sub-Base before the start of HMA placement. The compacted subbase or reclaimed base shall not be frozen or have standing water when placing HMA.

B. Milling – Pavement Fine Milling

Existing HMA pavement in areas designated by the Department shall be milled and removed from the project by the Contractor in accordance with 2023 Commonwealth of Massachusetts Department of Transportation Standard Specifications for Highways and Bridges sections: 460, 700, Division III M3 and Appendix A., Subsection 415: Pavement Milling. Adjustments to milling depth shall be approved by the Engineer and shall be used for consideration of the HMA pavement thickness measurements.

Each vertical face of the milled pavement that will be abutted by new pavement shall be thoroughly coated with a hot poured joint sealer meeting the requirements of 2023 Commonwealth of Massachusetts Department of Transportation Standard Specifications for Highways and Bridges sections: 460, 700, Division III M3 and Appendix A., 460.30: General immediately prior to placing new HMA mixture adjacent to the vertical face.

C. Patching Existing Pavement Courses

Areas of existing HMA pavement courses that are significantly distressed or unsound shall be removed and replaced with patches using new HMA. The location and limits of patching will be as identified in the plans or as directed by the Engineer.

Each existing pavement course determined to be unsound shall be removed to the full depth of the pavement course within a rectangular area. For each patch location equal to or greater than 50 ft² (and having a minimum dimension of 4 ft) where the existing pavement courses are removed down to subbase, the subbase shall be compacted by mechanical means to not less than 95% of the maximum dry density of the subbase material as determined by AASHTO T 99 Method C at optimum moisture content. Each edge of the patch area shall be sawcut or otherwise neatly cut by mechanical means to provide a clean and sound vertical face. The vertical face of each edge shall be thoroughly coated with a hot poured joint sealer meeting the requirements of 460.30: General immediately prior to placing the HMA patching mixture.

Delaminated areas of existing pavement courses resulting from pavement milling shall be cut back neatly by mechanical means to the limits of any unsound material. After removing all unsound material, the underlying pavement surface within the patch limits shall receive a thorough tack coat at a rate of application in accordance with 460.43: Preparation of Underlying Surface, Paragraph G (2) prior to placing the HMA patching mixture.

HMA patching mixture shall be the same mixture type as the existing pavement course being patched or as specified on the plans or as directed by the Engineer. The lift thickness of the patching mixture shall not exceed 4 times the nominal maximum aggregate size of the mixture. The patching mixture will be placed by hand or by mechanical means and shall match the thickness, grade, and cross-slope of the surrounding pavement. The HMA patching mixture shall be compacted using a steel wheel roller. For patch areas not large enough to permit use of a roller, compaction shall be accomplished using a mechanical tamper capable of achieving the required in-place density. The in-place density of the HMA patching mixture shall be not less than 90% of the maximum theoretical density of the mixture as determined by AASHTO T 209 (Method A). When the Contractor and Engineer elect to test the in-place density of a patched area using a calibrated density gauge, the test data for the patched area shall be recorded on NETTCP TRFs.

Sweeping Underlying Surface

The Contractor shall provide a mechanical sweeper equipped with a water tank, spray assembly to control dust, a pick-up broom, a dual gutter broom, and a dirt hopper. The sweeper shall be capable of removing millings and loose debris from the underlying surface. Prior to opening a milled area to traffic, all milled pavement surfaces shall be thoroughly swept in accordance with the applicable milling specification required by the contract to remove all remaining millings and dust. All pavement surfaces shall be swept clean, free of dust, fines, and slurry immediately prior to application of the tack coat. Any new HMA pavement course that has been open to traffic, or that was placed 30 days or more prior to placement of the subsequent pavement course, shall also be swept immediately prior to application of the tack coat.

Production

All facilities producing HMA must be Mass DOT approved and shall meet the requirements of AASHTO M 156. A list of approved HMA suppliers can be found at the link provided below:

<https://www.mass.gov/lists/qualified-construction-materials-list-qcml>

The dispatching of trucks from the plant shall be continuously coordinated to ensure that all of the HMA mixture planned to be delivered to the field placement site may be placed and compacted before the end of the scheduled workday.

The trucks used to transport HMA to the field placement site shall have tight, clean, smooth metal beds. When necessary to maintain the required HMA temperature, trucks shall be equipped with insulated beds. The truck beds shall be evenly and lightly coated with an approved release agent found on the QCML to prevent HMA mixture adherence. Truck beds shall be kept free of kerosene, gasoline, fuel oil, solvents, or other materials that could adversely affect the HMA mixture. Trucks will be inspected at the start of each shift prior to loading. Trucks not meeting the above requirements will not be allowed on the project.

Trucks shall have working back-up alarms and body lift alarms. Trucks will be inspected randomly during the project, trucks not having working alarms will not be allowed on the project.

Weather Limitations

HMA shall only be placed on dry, unfrozen surfaces and only when the temperature requirements contained in the table below are met. If the temperature requirements contained in the table are not met at any point throughout the paving shift, HMA placement shall cease, except as determined and directed by the Resident Engineer depending upon the necessity and emergency of attendant conditions and weather conditions. The Contractor may continue HMA placement when overtaken by sudden rain, but only with material which is in transit from the HMA production facility at the time, and then only when the temperature of the HMA mixture is within the temperature limits specified and when the existing surface on the roadway is free of standing moisture. The Engineer is not obligated to accept any material that was not already in transit prior to the onset of rain.

HMA PAVEMENT COURSE	LIFT THICKNESS (in)	MINIMUM AIR TEMP (F)	MINIMUM SURFACE TEMP (F)
SURFACE COURSE	<1 3/4	45	50
SURFACE COURSE	1 3/4 OR GREATER	35 (SEE NOTE 1)	40
INTERMEDIATE COURSE	ALL	35 (SEE NOTE 1)	40
BASE COURSE	ALL	35 (SEE NOTE 1)	40
LEVELING COURSE	AS SPECIFIED	45	50
NOTE 1: WHEN THE AIR TEMPERATURE FALLS BELOW 50F, EXTRA PRECAUTIONS SHALL BE TAKEN IN DRYING THE AGGREGATES, CONTROLLING THE TEMPERATURE OF MATERIALS, AND IN PLACING AND COMPACTING THE MIXTURES.			

Tack Coat (or Emulsion) Application Requirements

The tack coat material shall be applied by a pressure distributor. All nozzles on the distributor shall be open and functioning. All nozzles shall be turned at the same angle to the spray bar. The nozzles shall be offset at an angle from the spray bar to prevent the fan from one nozzle from interfering with the fan from another. Proper nozzle angle shall be as determined by the Manufacturer of the distributor spray bar. The spray bar shall be adjusted so that it is at the proper height above the pavement surface to provide a triple overlap spray for a uniform coverage of the pavement surface. A triple lap application requires that the nozzle spray patterns overlap one another such that every portion of the pavement receives spray from exactly three nozzles. Tack coat application rates for specific surface conditions shall be in accordance with the following:

- a) On a new HMA surface, not opened to traffic, the emulsion application rate shall equal 0.06 to 0.08 gal/yd².
- b) On an existing tight smooth pavement, the emulsion application rate shall equal 0.06 to 0.08 gal/yd².
- c) On a milled surface the emulsion application rate shall equal 0.07 to 0.09 gal/yd².
- d) On cement concrete base course, the emulsion application rate shall be equal to spray application for adjacent surface.
- e) On new HMA patches the emulsion application rate shall equal 0.06 to 0.09 gal/yd².

Tack coat shall be applied to cover a minimum of 95% of the pavement surface.

Paving

The Contractor shall ensure that the paver is loaded continuously to keep the placement operation moving. The volume of HMA in the paver receiving hopper shall remain above the paver tunnel during all paving operations. Proper practices shall be utilized to ensure that HMA is not dumped or spilled onto the prepared underlying surface in front of the paver by trucks unloading into the receiving hopper. Any material that falls in front of the paver shall be removed before the paver passes over it. The screed vibrator shall be operated at all times. When the use of a Material Transfer Vehicle (MTV) is required, the paving operations shall be coordinated in such a manner as to allow the paver to operate at a consistent speed without stopping.

Compaction

The number and type of rollers used for breakdown, intermediate, and finish rolling shall be sufficient to achieve the target in-place density and specified course thickness.

Inspection

The compacted HMA pavement course shall be free of mat deficiencies listed below and shall meet Table 460.73-4 of the 2023 Mass DOT 460 specification for hot-mix asphalt pavement, and any other part of the 460 and Supplemental and Special Provisions where applicable.

- a) Material (physical) segregation.
- b) Wavy surface.
- c) Tearing of the mat.
- d) Non-uniform mat texture.
- e) Screed marks.
- f) Poor subbase compaction.
- g) Poor mix compaction.
- h) Poor joints.
- i) Transverse (check) cracking.
- j) Mat shoving under roller.
- k) Bleeding or fat spots in the mat.
- l) Roller marks.
- m) Thickness

Deficiencies shall be corrected or removed and replaced in a timely manner and at no additional cost to the Department as directed by the Resident Engineer.

QC and QA staff shall be North East Transportation Training and Certification Program (NETTCP) qualified or Division of Professional Licensure (DPL) certified, Certified Testing Lab (CTL) Director of Testing Services, Laboratory Supervisor or Field Supervisor.

Third-Party Inspection

In the event that the DCR cannot provide inspection services to represent the Agency either at the plant or on-site, inspection services from an independent third-party shall be required at the request of the Department.

The third-party independent QC and QA staff shall be North East Transportation Training and Certification Program (NETTCP) qualified or Division of Professional Licensure (DPL) certified, Certified Testing Lab (CTL) Director of Testing Services, Laboratory Supervisor or Field Supervisor. The selected establishment shall have no affiliation with the Prime Contractor and shall be included in the QC Plan for review and approval of the Department. The fiduciary responsibilities of the selected establishment shall be to the Commonwealth and paid for under the relevant contract unit pricing.

The services provided shall be on a case-by-case basis and shall be determined by Department only.

The required HMA Inspection forms shall be found in the Appendix of the contract.

Materials

HMA shall be tested at random for each day's production or one test for each 750 tons. HMA lots will be accepted by the Department as specified in Table 460.76-1 of the 2023 Mass DOT 460 specification for hot-mix asphalt pavement.

The Department shall be responsible for testing the temperature, asphalt content and gradation. Contractor or Supplier shall be responsible for testing the volumetric properties. The Contractor or Supplier shall adjust the mix to correct any out of specified range results as quickly as possible. HMA not meeting the specification requirements may be removed and replaced at the Resident Engineers discretion at no cost to the Department.

In-place density shall be tested on all lots over 500 tons in accordance with ASTM D2950 using a nuclear density gauge, or ASTM D7113 using an electronic density gauge. Testing shall be performed by a Private Testing Lab, the Contractor, or the HMA Supplier at no cost to the Department. The Contractor shall submit a nightly report to the Resident Engineer for use and records. HMA not meeting required results may be removed and replaced at the Resident Engineers discretion at no cost to the Department. The density gauge results can, at the Departments discretion by used in the acceptance criteria rather than cores.

Method of Construction

Where existing roadway and bridge deck pavement is to be resurfaced, the hot-mix asphalt shall be placed in one course to the grade and contour approved by the Resident Engineer and having a thickness of 3.5 to 4.5 times the nominal maximum size stone in the mix being placed.

Material Transfer Vehicle

When specified in the contract, and where the speed limit is 40 mph or greater, a MTV will be required. The MTV shall be used to place all intermediate and surface pavement courses.

MTV Equipment Rentals

The MTV shall be self-propelled and capable of remixing and transferring the HMA mixture to the paver so that the HMA mat behind the paver has a uniform homogeneous temperature and appearance. The MTV shall be equipped with the following:

- a) A truck unloading system, capable of maintaining the planned paving production rate, which shall receive HMA from the trucks and independently deliver the mixture from the trucks to the paver.
- b) A paver hopper insert with a minimum capacity of 14 tons shall be installed in the hopper of conventional paving equipment. The paver hopper insert shall be marked to identify the point at which the insert is 50% full.
- c) An internal storage bin with a minimum capacity of 25 tons of mixture and a remixing system in the bottom of the storage bin to continuously blend the mixture as it discharges to a conveyor system; or a dual pugmill system located in the paver hopper insert with two full length longitudinally mounted counter-rotating screw augers to continuously blend and feed the mixture through the paver to the screed.

MTV Operations

The Contractor shall ensure that the MTV is loaded continuously to keep the paver moving. The volume of HMA in the paver hopper insert shall remain above the 25% capacity mark during all paving operations. In the event the MTV malfunctions during HMA placement operations, the Contractor shall continue placement of material until such time there is sufficient HMA placed to maintain traffic in a safe manner. The Contractor may continue placement of HMA until any additional mixture in transit has been placed. Paving Operations may resume only after the MTV has been repaired and is fully operational.

Bridge Loading Restrictions.

The MTV shall be subject to all bridge load restrictions. The Contractor shall verify the sufficiency of the current bridge ratings with the Engineer. In the event that the MTV exceeds the maximum allowable bridge load, the MTV shall be empty when crossing the bridge and shall be moved across without any other Contractor vehicles or equipment being on the bridge. The MTV shall be moved across the bridge in a travel lane and shall not be moved across the bridge on the shoulder. The MTV shall be moved at a speed no greater than 5 mph without any acceleration or deceleration.

Pavers

Each HMA pavement course shall be placed with one or more pavers at the specified grade, cross-slope, and lift thicknesses.

Paver Equipment Requirements

Each paver shall be a self-contained, power propelled unit and shall produce a finished surface of smooth and uniform texture without segregating, tearing, shoving, or gouging the HMA. The pavers shall be equipped with the following:

- a) A receiving hopper having sufficient capacity to ensure a uniform and continuous placement operation.
- b) Automatic feed controls, which are properly adjusted to maintain a uniform depth of material ahead of the screed.
- c) Automatic screed controls with sensors capable of sensing the transverse slope of the screed and providing the automatic signals that operate the screed to maintain grade and transverse slope.
- d) An adjustable vibratory screed with full-width screw augers and heated for the full width of the screed.
- e) Capable of spreading and finishing HMA pavement courses in widths at least 12 in. more than the width of one travel lane.
- f) Capable of being operated at forward speeds to satisfactorily place the HMA.

Paver Operations

The Contractor shall ensure that the paver is loaded continuously to keep the placement operation moving. The volume of HMA in the paver receiving hopper shall remain above the paver tunnel during all paving operations. Proper practices shall be utilized to ensure that HMA is not dumped or spilled onto the prepared underlying surface in front of the paver by trucks unloading into the receiving hopper. Any

material that falls in front of the paver shall be removed before the paver passes over it. The screed vibrator shall be operated at all times.

When the use of an MTV is required, the paving operations shall be coordinated in such a manner as to allow the paver to operate at a consistent speed without stopping.

BASIS OF PAYMENT

All Superpave items shall be paid for at the contract unit price per TON, complete in place, which price shall include all necessary tools, equipment, materials, and labor to complete the installation of hot-mix asphalt per this specification, and to the satisfaction of the Resident Engineer. An addition per TON price for the addition of POLYMER (PG 64E-28 - E Grade Liquid) in the HMA shall also be submitted.

Item 460.9 Sweeping of Underlying Surface shall be paid for at the contract unit price per HOUR.

Item 460.91 Material Transfer Vehicle will be paid for at the contract unit price per TON. Payment shall include the use of a material transfer vehicle during paving operations in accordance with the actual tonnage of HMA that goes through the machine.

Item 460.92 Independent Inspection Services shall be paid for at the contract unit price per HOUR.

ITEM 504.**GRANITE CURB TYPE VA4-STRAIGHT****FT**

This work consists of removing, relaying, plugging, and stacking pipes as per MassDOT specifications. Pipes may be adjusted to new alignments, plugged to seal ends, or stacked for reuse or removal. The Contractor shall ensure proper excavation, handling, and backfilling for compliance with contract plans and engineer directives.

EQUIPMENT

- The following equipment is required to perform the work of removing, relaying, plugging, and stacking pipes in accordance with MassDOT specifications:
 - Excavators: Used for excavation of trenches, removal of pipes, and handling of materials. Excavators with appropriate bucket sizes are required to handle the varying sizes of pipes to be removed and relayed.
 - Backhoes: Used for smaller-scale excavation, especially for tasks like adjusting the alignment of pipes and backfilling after pipe work has been completed.
 - Pipe Handling Equipment: Including pipe clamps, chains, or slings to safely lift and transport pipes to be relayed or stacked. Equipment must be capable of handling the size and weight of the pipes without causing damage.
 - Hydraulic Excavators: For lifting and moving heavy pipes or for precise excavation around existing infrastructure.
 - Trench Shoring and Shielding Equipment: Required to ensure trench safety during excavation and pipe removal operations, in compliance with safety regulations.
 - Compactors: Used for compaction of the trench backfill to ensure proper settling and stability. The compaction equipment should be appropriate for the type of backfill material.
 - Concreting Equipment: Including mixers, vibrators, and trowels for any concrete work related to plugging pipe ends or stabilizing relocated pipes.
 - Concrete Pumping Equipment: If required for the placement of concrete at the ends of pipes being plugged.
 - Dump Trucks: For transporting excavated materials, removed pipes, or newly placed backfill and gravel.
 - Asphalt Pavers: If any asphalt work is required for trench restoration after pipe work is completed.
 - Traffic Control Equipment: Includes cones, barriers, and signs for ensuring proper traffic management around the construction site.
 - Water Trucks: For dust control and managing moisture levels during excavation and backfilling.

The Contractor must ensure that all equipment is in good working condition, properly maintained, and operated by trained personnel to ensure safety and efficiency in the execution of work.

MATERIALS

- Materials shall conform to the requirements specified in the following MassDOT Subsection of Division III, Materials:
 - Granite Curb: M9.04.1

- Granite Curb Inlets: M9.04.5
- Granite Curb Corners: M9.04.6
- Granite Edging: M9.04.2
- Mortar: M4.02.15
- Gravel: M1.03.0, Type c
- Anchors: M8.01.0
- Cement Concrete Precast Units: M4.02.14
- Joint Material
 - Tar Paper: M9.06.2
 - Preformed Expansion Joint Filler: M9.14.0
- HMA for Driveways, Sidewalks, Berm and Curb: M3.07.0
- Cement Concrete: M4.02.00
- Liquid Concrete Penetrant/Sealer: M9.15.0

CONSTRUCTION METHODS

- Excavating Trench
 - The trench for the curb shall be excavated to a width of 18 in. The subgrade of the trench shall be a depth below the proposed finished grade of the curb equal to 6 in. plus the depth of the curbstone. Existing pavements shall be sawcut in accordance with the requirements of MassDOT Subsection 482: Sawcutting as shown on the plans and as required by the Engineer.
- Preparing Foundation
 - The foundation for the curb shall consist of gravel spread upon the subgrade and, after being thoroughly compacted by tamping, shall be 6 in. in depth. The gravel foundation for edging shall be as shown on the plans and shall be thoroughly rammed or tamped until firm and unyielding. The foundation for the curb inlet shall consist of a full bed of Portland cement mortar on the supporting back wall of the catch basin or gutter inlet and sufficient gravel on each side to support the overhang. The trench for the gravel foundation shall be at least 6 in. in depth and 18 in. in width. This trench shall be filled with gravel thoroughly tamped to the required grade. The trench for the curb corner shall be excavated so that there shall be constructed a foundation of gravel, which when thoroughly compacted, will be 6 inches in depth and extend 6 in. beyond the front and back of the curb corner to the full depth of foundation. Other acceptable material may be used for backing.
- Setting Curb and Edging
 - Curbing, curb corners, or edging shall be set on additional gravel spread upon the foundation. All spaces under the curb, curb corners, or edging shall be filled with gravel thoroughly compacted so that the curb, curb corners, or edging will be completely supported throughout their length. The curb shall be set at the line and grade required as shown on the plans. Curb, curb corners, or edging shall be fitted together as closely as possible, except for VA5 curb, which shall not fit closer to each other than ¼ in. If curb, curb corners, curb inlets, or edging of different quarries is used on the same project, curbing of each quarry shall be segregated and set to give uniform appearance.
- Cement Concrete Installation

- Cement concrete shall be placed one foot in front and one foot back of all new and reset granite curbing. The concrete shall be 3000 psi air-entrained concrete, poured to a depth of one foot, or as directed by the Engineer. This is to provide a stable base and ensure secure placement of the granite curbing. The concrete should be adequately finished and cured as per standard procedures.
- Concrete Curb, Corners, and Edging
 - General
 - The curb shall consist of concrete castings molded in place in sections 6 ft long, 24 in. in depth, 6 in. in width at the top, and 7 in. in width at the bottom, with a front vertical face. The top front edge of the curb shall be rounded to $\frac{3}{4}$ -in. radius. The ends of curb sections shall be chamfered $\frac{1}{4}$ in. The edging shall consist of concrete castings conforming to the size and dimensions shown on plans. Straight edging shall be cast in lengths of 4 ft. Edging for curves with radii 300 ft or less shall be straight edging but shall be cast in lengths less than 4 ft to avoid angles at joints. The ends of all edging shall be normal to the line of face. The edges of the edging face shall be chamfered $\frac{1}{4}$ in. Corners shall match the adjacent curb in size, color, and finish. The front arris line shall extend through $\frac{1}{4}$ of a circle having a radius of 2 ft or 3 ft, respectively, for Type A or Type B curb corners. The back arris line shall be straight. The plan of the back shall be normal to the top. All forms shall be set true to lines and grades indicated on plans and as directed and held rigidly in proper position. They shall be either of metal or acceptable planed and matched lumber of such construction that a smooth surface will be provided. Expansion joints shall be formed at the intervals shown on the plans using preformed expansion joint filler having a thickness of $\frac{1}{2}$ in. When curb is constructed adjacent to or on concrete pavement, expansion joints shall be located opposite or at expansion joints in the pavement.
 - Mixing and Placing Concrete
 - The concrete shall be of such consistency and be so spaded and worked that a smooth mortar face will be produced.
 - Protection, Curing, and Finishing of Concrete
 - Protection:
 - The forms shall be left in place for 24 hours or as directed until the concrete has set sufficiently so that they can be removed without injury to the castings. Particular care will be required to prevent any discoloration of the exposed surface.
 - Curing:
 - When the concrete has hardened sufficiently, the concrete shall be covered with acceptable burlap or other approved material and kept wet for 3 days or longer. Under extreme weather or other conditions, proper curing shall be carried out as directed.
 - Finishing:
 - The castings shall immediately upon removal of the forms, be rubbed down to a smooth and uniform surface, but no plastering will be allowed. For this work, a competent and skillful finisher shall be employed.

- Protective Coating:
 - The Concrete Penetrant/Sealer shall conform to the requirements of MassDOT M9.15.0: Liquid Penetrant/Sealant. After the concrete is at least 14 days old and after a 48-hour minimum drying period (a longer period shall be required if castings do not appear dry), just prior to the time of treatment, the exposed surface shall be cleaned to remove all oil, grime, and loose particles that may prevent the mixture from penetrating the concrete. Immediately before the application of the mixture, an air blast shall be directed over the surface to be treated so that all dust will be removed. The temperature of the concrete and air shall be 50°F or higher at the time of application. For the rate of application, see MassDOT M4.02.14: Precast Units, Paragraph D.

The second application of the surface treatment mixture shall not be made until the concrete, in the judgment of the Engineer, has regained its dry appearance. Traffic shall be prohibited from the area until the concrete has regained its dry appearance.

METHOD OF MEASUREMENT

- The length of curb (except hot mix asphalt curb) and edging shall be as measured along the front arris of the curb and edging, except that where the edging is set on a curve having a radius of 10 ft or less, the measurement will be made along the edging at the lowest exposed level after completion of shoulder or pavement. The quantity of hot mix asphalt curb to be paid for will be the length measured along curb at its lowest exposed edge. Each curb corner and curb inlet set, complete in place, will be considered one unit.

PAYMENT

- Curbing or edging will be paid at the contract unit price per foot, complete in place. This includes saw cutting existing pavement, placing cement concrete to set the curb or edging, and all other necessary work for installation.
-
- For curved granite curb, payment covers all curbing (except curb corners) that is cut to the specified radius and set on a curve.
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- For Type VA5 curb, steel anchors will be paid for separately under the VA5 curb item.
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- For granite edging set on a curve with a radius of 10 feet or less, payment will be made per foot under the respective edging item.
-
- For curb inlets, payment will be made per unit under the respective item, whether straight or curved, complete in place.
-
- For curb corners, payment will be made per unit under the respective item for the specific type of corner required, complete in place.
- Excavation:
 - Initial excavation (except Class A Rock Excavation) performed with sub-base excavation will be paid under the appropriate excavation item.
 - The curbing price includes compensation for any additional required excavation.

- Gravel borrow for foundations and backfilling will be paid per cubic yard under the Gravel Borrow item.
- Rock excavation, if needed, will be paid per cubic yard under the Class A Rock Excavation item.

All work shall conform to MassDOT specifications and contract documents.

This work consists of removing existing curbs, edging, curb corners, and curb inlets of various materials, including granite, concrete, and granite-faced sections. The work includes resetting, stacking, or discarding the materials as specified and ensuring compliance with the lines and grades shown on the plans or established by the Engineer.

EQUIPMENT

- The Contractor shall provide all necessary equipment to facilitate the removal, transportation, cutting, stacking, resetting, or disposal of curb and edging, including but not limited to:
 - Excavation equipment for trenching and removal.
 - Saw-cutting equipment for cutting existing pavements as needed.
 - Lifting and handling equipment to prevent damage to curb materials.
 - Tools for adjusting, realigning, and setting curb sections in place.

MATERIALS

- Curb, Edging, Curb Inlets, and Curb Corners:
 - Materials designated for resetting or stacking shall be deemed suitable by the Engineer. Any damaged or unsuitable materials will not be reused.
- Gravel:
 - Gravel shall conform to MassDOT M1.03.0, Gravel Borrow Type C.

CONSTRUCTION METHODS

- Removal
 - A trench of adequate width and depth shall be excavated to remove the curb, edging, curb corners, and curb inlets without damage.
 - Existing pavement shall be saw-cut as per Subsection 482: Sawcutting, following the plan requirements and Engineer's direction.
- Protection
 - The Contractor is responsible for protecting all removed curb materials until project completion.
 - Any curb, edging, curb corners, or curb inlets lost or damaged due to negligence shall be replaced at the Contractor's expense.
- Adjustment
 - Curb or edging sections shall be cut and adjusted as necessary to fit closures.
 - All stone ends shall be squared to ensure tight joints, with no gap exceeding $\frac{3}{4}$ inch at the top and extending 8 inches down the face.
- Relaying
 - Resetting curbing or edging shall follow the requirements outlined in Subsections 501.60 to 501.67, including trench excavation, setting procedures, filling, and pointing.
- Stacking
 - Materials designated for stacking shall be carefully removed, handled, and stored in an accessible location for retrieval by the owner.
 - The Contractor's responsibility ends upon final project acceptance or 60 days after certified notice of material availability is sent to the owner and Engineer.
 - Any material damaged due to lack of protection shall be replaced at the Contractor's expense.

- Discarding
 - Curb, edging, curb corners, and curb inlets deemed unsuitable for reuse shall be discarded.
 - The Contractor shall dispose of such materials in accordance with project specifications, without additional compensation.

METHOD OF MEASUREMENT

- Removed and Reset: Measured by linear foot along the front arris line at the final installed location.
- Removed and Stacked: Measured by linear foot along the front arris line at the stacked location.
- Removed and Discarded: Measured by linear foot of material removed and not included under reset or stacked items.
- Curb Inlets and Corners: Measured per unit removed and either reset, stacked, or discarded.
- Additional Removal: Any remaining curb or edging removed and not covered under these items will be classified under Excavation.

PAYMENT

- Payment will be made at the contract unit price per linear foot or per unit, as applicable, and shall include all labor, materials, equipment, and incidentals necessary to complete the work.

This work consists of furnishing, installing, maintaining, and removing temporary fencing as required to protect work areas, control pedestrian and vehicular movement, or provide security. The fence shall be installed in accordance with these specifications and as directed by the Engineer.

EQUIPMENT

- The Contractor shall provide all necessary equipment for handling, transporting, installing, and removing temporary fencing, including but not limited to:
 - Post drivers or augers for setting fence posts.
 - Cutting tools for adjusting fence sections.
 - Lifting and handling equipment for fence panels.
 - Stabilization and anchoring tools as required for site conditions.

MATERIALS

Temporary fencing shall consist of durable materials suitable for the intended purpose and shall meet the following requirements:

- Fence Fabric:
 - Chain-link fencing, plastic mesh, or welded wire, as specified in the contract documents.
 - Minimum height: 6 feet, unless otherwise specified.
 - Openings shall not exceed 2 inches for security applications.
- Fence Posts:
 - Metal or wood posts, sized appropriately for fence height and anticipated loads.
 - Minimum post spacing: 8 feet on center, unless otherwise directed.
- Anchoring & Supports:
 - Driven, set in concrete, or weighted bases, as required to maintain stability.
 - Sandbags or ballast may be required for freestanding panels.

CONSTRUCTION METHODS

- Installation:
 - The temporary fence shall be erected along the designated alignment as shown on the plans or as directed by the Engineer.
 - Posts shall be driven or anchored securely to prevent movement under expected site conditions.
 - Fence fabric shall be tightly secured to posts with appropriate fasteners or ties.
 - Gates or access openings shall be installed where necessary and secured properly.
- Maintenance:
 - The Contractor shall regularly inspect and maintain the fence in good condition, repairing any damage promptly.
 - Any fence sections that become displaced, damaged, or ineffective shall be reinstalled or replaced immediately at the Contractor's expense.
- Removal:
 - Upon project completion or when directed by the Engineer, the temporary fence shall be removed, and all materials shall be disposed of or salvaged as required.
 - Any holes left from post removal shall be backfilled and compacted to match surrounding conditions.

METHOD OF MEASUREMENT

- Temporary fencing will be measured by the linear foot of fence installed and maintained in accordance with the contract requirements.

PAYMENT

- The accepted quantity of temporary fencing will be paid for at the contract unit price per linear foot, which shall include all labor, materials, equipment, installation, maintenance, and removal.

This work consists of furnishing, installing, maintaining, and removing geotextile filter bags for dewatering filtration. The filter bag shall be used to remove sediment from pumped water before discharge in accordance with these specifications and as directed by the Engineer.

EQUIPMENT

- The Contractor shall provide all necessary equipment for handling, installing, maintaining, and removing geotextile filter bags, including but not limited to:
 - Pumps with appropriate discharge flow rates.
 - Hoses and fittings for secure connections.
 - Anchoring materials such as stakes or ballast weights.
 - Inspection and maintenance tools for monitoring performance.

MATERIALS

- Geotextile filter bags shall conform to MassDOT M9.50.0 and meet the following requirements:
 - Fabric Requirements:
 - Non-woven geotextile with a high-flow rate and appropriate tensile strength.
 - Needle-punched or heat-bonded to ensure structural integrity.
 - UV-resistant and capable of withstanding site conditions.
 - Size & Capacity:
 - Sized appropriately for the expected pump flow rate and sediment load.
 - Minimum dimensions as specified in contract documents or approved by the Engineer.
 - Discharge Connections & Anchoring:
 - Secure hose inlets compatible with standard dewatering equipment.
 - Anchoring system (stakes, weights, or secured placement) to prevent movement.

CONSTRUCTION METHODS

- Installation:
 - The filter bag shall be placed on a stable, level surface with sufficient area to allow proper drainage.
 - The discharge hose shall be securely inserted into the bag's inlet sleeve and fastened to prevent leaks.
 - The bag shall be properly anchored to prevent displacement during operation.
- Operation & Maintenance:
 - The Contractor shall monitor the bag for proper function and ensure water is exiting at an acceptable turbidity level.
 - If clogging or reduced flow occurs, the bag shall be replaced or repositioned as needed.
 - Any damage or excessive sediment buildup shall require immediate corrective action.
- Removal & Disposal:
 - Once full or no longer effective, the filter bag shall be removed without releasing trapped sediment.
 - The Contractor shall properly dispose of the bag and accumulated sediment per environmental regulations.
 - The site shall be restored to its original condition upon removal.

METHOD OF MEASUREMENT

- Geotextile filter bags for dewatering filtration will be measured per each unit installed, maintained, and removed in accordance with the contract requirements.

PAYMENT

- The accepted quantity of geotextile filter bags will be paid for at the contract unit price per each, which shall include all labor, materials, equipment, installation, maintenance, and removal.

This work consists of furnishing, placing, and securing geotextile fabric for soil stabilization, separation, filtration, or drainage in accordance with these specifications and as directed by the Engineer. The geotextile shall be installed at the locations shown on the plans or as required for site conditions.

EQUIPMENT

- The Contractor shall provide all necessary equipment for handling, transporting, cutting, and installing geotextiles, including but not limited to:
 - Earthmoving equipment for site preparation.
 - Cutting tools for fabric trimming.
 - Anchoring tools such as stakes, staples, or weights.
 - Compaction equipment for overlying materials.

MATERIALS

- Geotextiles shall conform to MassDOT M9.50.0 and shall meet the following requirements based on intended application:
 - Separation & Stabilization Geotextile:
 - Non-woven or woven fabric as specified.
 - Minimum tensile strength and puncture resistance per project specifications.
 - Filtration & Drainage Geotextile:
 - Permeability and opening size appropriate for soil conditions.
 - Resistant to clogging and degradation in submerged conditions.
 - Anchoring & Overlapping:
 - Overlap minimum 12 inches, or as directed.
 - Secured using staples, pins, or trenching based on site conditions.

CONSTRUCTION METHODS

- Site Preparation:
 - The placement area shall be cleared of debris, sharp objects, and irregularities that could damage the geotextile.
 - Subgrade shall be properly graded and compacted as necessary.
- Fabric Installation:
 - Geotextile shall be laid smoothly without folds or wrinkles.
 - Adjacent sections shall overlap per project requirements.
 - If required, anchoring shall be done using stakes, staples, or trench burial.
- Placement of Overlying Materials:
 - Backfill, aggregate, or soil shall be placed carefully to prevent damage or displacement.
 - Equipment operating over the geotextile shall be limited to low ground pressure unless otherwise approved.
- Inspection & Repairs:
 - Any damaged or displaced fabric shall be replaced before covering.
 - The Contractor shall ensure that the geotextile remains intact during construction activities.

METHOD OF MEASUREMENT

- Geotextile fabric will be measured by the square yard of material satisfactorily placed and accepted. Overlaps and anchoring will not be measured separately for payment.

PAYMENT

- The accepted quantity of geotextile will be paid for at the contract unit price per square yard, which shall include all labor, materials, equipment, and incidental costs necessary to complete the work.

ITEM 748.**MOBILIZATION****EA**

This work consists of preparatory operations necessary for the movement of personnel, equipment, and materials to and from the project site in accordance with these specifications. Mobilization includes establishing field offices, shops, storage areas, other necessary facilities, pre-mobilization contract submittals, Dig Safe markouts/renewals, and, if required, access agreements. Demobilization includes the removal of temporary facilities, cleanup, final documentation of work (as-built survey, swing-ties, material weight slips, disposal documentation, etc.), and restoration of areas disturbed during mobilization.

EQUIPMENT

- The Contractor shall provide all necessary equipment for mobilization and demobilization, including but not limited to:
 - Trucks and transport vehicles for equipment and materials.
 - Temporary office trailers, storage containers, and utilities.
 - Safety and traffic control devices.
 - Environmental protection measures, as required.

MATERIALS

- Materials required for mobilization may include:
 - Temporary facilities such as field offices, storage, and sanitary facilities.
 - Erosion and sedimentation control measures.
 - Temporary signage, fencing, and security barriers, as required.

CONSTRUCTION METHODS

- Mobilization
 - Pre-Mobilization Requirements:
 - Submit and obtain approval for all pre-mobilization contract submittals before mobilization begins.
 - Complete Dig Safe markouts/renewals and provide documentation to the Engineer.
 - Secure any required access agreements for staging areas and site access.
 - Site Preparation:
 - Establish staging areas, field offices, and storage locations per contract documents.
 - Install any necessary temporary utilities, including water, electricity, and sanitation.
 - Implement traffic control and safety measures.
 - Equipment & Personnel Deployment:
 - Transport and assemble all necessary equipment and materials.
 - Ensure all mobilization activities comply with site access, environmental, and safety regulations.
- Demobilization
 - Removal of Equipment & Temporary Facilities:
 - Dismantle and remove all temporary structures, storage facilities, and offices.
 - Remove temporary utilities and site access improvements.

- Site Restoration:
 - Restore all disturbed areas to pre-construction conditions or as required by the contract.
 - Remove debris and waste materials in compliance with environmental regulations.
- Final Documentation & Closeout:
 - Submit as-built survey, swing-ties, material weight slips, disposal documentation, and other required final records.
 - Obtain final Engineer inspection and approval before final acceptance.

METHOD OF MEASUREMENT

- Mobilization and demobilization will be measured as a lump sum item, with payments as follows:
 - 50% upon completion of mobilization and approval of required submittals.
 - 50% upon completion of demobilization, site restoration, and submission of final documentation.

PAYMENT

- Mobilization and demobilization will be paid for at the contract lump sum price, which shall include all labor, materials, equipment, submittals, and incidental costs necessary to complete the work.

This work shall consist of furnishing, testing, and placing loam for use in roadside and lawn areas, in accordance with these specifications and in close conformity with the lines, grades, and thicknesses shown on the plans or established by the Engineer.

EQUIPMENT

- All equipment necessary for excavation, transport, spreading, and grading of loam shall be in good working condition and suitable for the required work. Equipment used shall not cause compaction or contamination of the loam.

MATERIALS

- Loam shall conform to the requirements of M1.05.0 and shall be fertile, friable soil obtained from naturally well-drained areas or from a commercial sand and gravel processing facility. It shall be free of saltwater contamination, foreign matter, and substances harmful to plant growth. The loam shall be free of debris, rocks, clods, and other extraneous materials.
 - Loam for Roadsides: No material greater than 1 inch in diameter.
 - Loam for Lawns: No material greater than ½ inch in diameter.
 - Gradation Requirements:
 - No. 10 sieve: 85–100% passing
 - No. 40 sieve: 35–85% passing
 - No. 200 sieve: 10–35% passing
 - Particles < 20 µm: Less than 5%
- The organic content shall be between 4% and 10%, as determined by the loss on ignition of oven-dried samples. Lawn areas shall have an organic content of at least 4%, while areas with woody plantings shall have an organic content between 7% and 10%. The soil acidity shall be within a pH range of 5.5 to 7.0. Salinity shall not exceed 0.1 S/m.

The contractor shall provide testing submittals per source as follows:

- One 25-lb representative sample per source.
- For sources exceeding 1,000 cubic yards, an additional 25-lb sample per each additional 1,000 cubic yards.
- Five random representative samples of stockpiled loam, collected in the presence of the Engineer.

Testing shall be performed at the contractor's expense, and no loam shall be delivered to the site until approved by the Engineer.

CONSTRUCTION METHODS

- The contractor shall place and spread loam to the required thickness, ensuring a uniform and smooth surface. The loam shall be lightly compacted and fine-graded to remove irregularities. Loam placement shall not occur when the material is excessively wet or frozen.

Soil amendments such as fertilizer, lime, or compost shall be incorporated as directed to achieve the required soil conditions for vegetation growth.

METHOD OF MEASUREMENT

- The quantity of loam to be paid for shall be the number of cubic yards or square yards of material placed and accepted. Measurement shall be based on in-place compacted thickness or truck load tickets verified by the Engineer.

PAYMENT

- Loam will be paid for at the contract unit price per cubic yard or square yard, which shall include all materials, labor, testing, equipment, and incidentals necessary to complete the work. Amendments required to adjust pH, organic content, or structure shall be considered incidental to the work unless specified otherwise.

The work under these items consists of furnishing and installing specialized seed mixes for ecological restoration, stormwater management, and conservation purposes. These seed mixes include:

- New England Wetmix
 - A wetland seed mix suitable for various hydrologic conditions.
- New England Erosion Control/Restoration Mix for Detention Basins and Moist Sites
 - Designed for stabilizing soils in detention basins and wetland restoration projects.
- New England Conservation/Wildlife Mix
 - Supports pollinators, birds, and other wildlife in conservation areas.
- New England Wildflower Mix
 - A diverse mix of native wildflowers for enhancing biodiversity and aesthetic value.

All materials and methods shall comply with the project specifications and applicable state and federal environmental regulations.

EQUIPMENT

- Hydro-seeder or broadcast spreader for even seed distribution
- Rakes, harrows, or seed rollers for soil preparation
- Watering equipment for initial establishment
- Erosion control blankets or straw mulch (if specified)

MATERIALS

- New England Wetmix (as per supplier specifications)
- New England Erosion Control/Restoration Mix for Detention Basins and Moist Sites
- New England Conservation/Wildlife Mix
- New England Wildflower Mix
- Soil amendments (if required, such as compost or organic fertilizers)

Seed mixes shall be sourced from New England Wetland Plants, Inc., or an approved equivalent.

CONSTRUCTION METHODS

- Site Preparation:
 - Clear and grade the area to establish a suitable seedbed.
 - Remove debris, compacted soil, and invasive species.
 - Apply soil amendments if necessary.
- Seeding:
 - Evenly distribute seeds using a broadcast spreader, hydro-seeder, or manual application.
 - For wetland sites, ensure appropriate soil moisture before and after seeding.
- Soil Protection & Establishment:
 - Lightly rake or roll seeds into the soil to ensure proper seed-to-soil contact.
 - Apply mulch or erosion control blankets where needed.

- Water as necessary to support germination and establishment.
- Maintenance & Monitoring:
 - Monitor germination rates and reseed areas with low coverage.
 - Control invasive species and provide supplemental watering as needed.
 - Ensure compliance with specified project requirements.
- Application Rates:

Seed Mix	Application Rate
New England Wetmix	18 lbs/acre
Erosion Control/Restoration Mix for Detention Basins & Moist Sites	35 lbs/acre
Conservation/Wildlife Mix	25 lbs/acre
Wildflower Mix	23 lbs/acre

METHOD OF MEASUREMENT

- Measured in square yards (SY) of seeded area.
- Partial areas will be rounded to the nearest square yard.

PAYMENT

- New England Wetmix, New England Erosion Control/Restoration Mix for Detention Basins and Moist Sites, New England Conservation/Wildlife Mix, and New England Wildflower Mix will be paid per SY.
- Payment includes material supply, site preparation, seeding, and initial watering.
- Erosion control blankets, mulching, and soil amendments will be paid under separate items if required.

ITEM 767.121**SEDIMENT CONTROL BARRIER****FT**

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

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

Twelve-inch diameter (after installation) compost filter tubes with biodegradable natural fabric (i.e., cotton, jute, burlap) are intended to be the primary sedimentation control barrier. Photo- biodegradable fabric shall not be used.

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

- 9-inch compost filter tubes
- Straw bales which shall be trenched

No straw wattles may be used. Additional compost filter tubes (adding depth or height) shall be used at specific locations of concentrated flow such as at gully points, steep slopes, or identified failure points in the sediment capture line.

When required by permits, additional sediment barrier shall be stored on-site for emergency use and replacement for the duration of the contract.

Where shown on the plans or when required by permits, silt fence shall be used in addition to compost filter tubes and straw bales and shall be incidental to the item.

Sediment control barriers shall be installed in the approximate location as shown on the plans and as required so that no excavated or disturbed soil can enter mitigation areas or adjacent wetlands or waterways. If necessary to accommodate field conditions and to maximize effectiveness, barrier locations may be shifted with approval from the Engineer. Barriers shall be in place prior to excavation work. No work shall take place outside the barriers.

MATERIALS AND CONSTRUCTION

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

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

Prior to installation the Contractor shall supply the Manufacturer's information for the proposed sediment control barrier which shall include material composition and installation instructions to the Engineer for review and approval.

Compost Filter Tube

Compost material inside the filter tube shall meet MassDOT standard M1.06.0, except for the following: no peat, manure or bio-solids shall be used; no kiln-dried wood or construction debris shall be allowed; material shall pass through a 2-inch sieve; and the C:N ratio shall be disregarded.

Outer tube fabric shall be made of 100% biodegradable materials (i.e., cotton, hemp or jute) and shall have a knitted mesh with openings that allow for sufficient water flow and effective sediment capture.

Tubes shall be tamped, but not trenched, to ensure good contact with soil. When reinforcement is necessary, tubes shall be stacked as shown on the detail plans.

Straw Bales

Straw bales shall be used if shown on the plans or when specified by Orders of Condition or other permit requirements.

Bales should be placed in a single row, lengthwise on the contour, with ends of adjacent bales tightly abutting one another. All bales should be either wire-bound or string-tied. Straw bales should be installed so that bindings are oriented around the sides (rather than along the tops and bottoms) of the bales in order to prevent deterioration of the bindings.

The barrier should be entrenched and backfilled. A trench should be excavated the width of a bale and the length of the proposed barrier to a minimum depth of 4 inches. The trench must be deep enough to remove all grass and other material which might allow underflow. After the bales are staked and chinked (filled by wedging), the excavated soil should be backfilled against the barrier. Backfill soil should conform to the ground level on the downhill side and should be built up to 4 inches against the uphill side of the barrier.

Each bale should be securely anchored by at least 2 stakes or re-bars driven through the bale. The first stake in each bale should be driven toward the previously laid bale to force the bales together. Stakes or re-bars should be driven deep enough into the ground to securely anchor the bales. For safety reasons, stakes should not extend above the bales but should be driven in flush with the top of the bale.

The gaps between the bales should be chinked (filled by wedging) with straw to prevent water from escaping between the bales. Loose straw scattered over the area immediately uphill from a straw bale barrier tends to increase barrier efficiency. Wedging must be done carefully in order not to separate the bales.

When used in a swale, the barrier should be extended to such a length that the bottoms of the end bales are higher in elevation than the top of the lowest middle bale to assure that sediment-laden runoff will flow either through or over the barrier but not around it.

Sedimentation Fence

Materials and Installation shall be per Section 670.40 and 670.60 of the MassDOT Standard Specifications and the following:

Sedimentation fence shall only be used if shown on the plans or when specified by Orders of Condition or other permit requirements.

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

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

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

MAINTENANCE

Maintenance of the sediment control barrier shall be per Section 670.60 of the MassDOT Standard Specifications or per the Stormwater Pollution Prevention Plan (SWPPP), whichever is more restrictive.

The contractor shall inspect the sediment barrier in accordance with relevant permits. At a minimum, barriers shall be inspected at least once every 7 calendar days and after a rain event resulting in 0.25 inches or more of rainfall. Contractor shall be responsible for ensuring that an effective barrier is in place and working effectively for all phases of the Contract.

Barriers that decompose such that they no longer provide the function required shall be repaired or replaced as directed. If the resulting berm of compost within the fabric tube is sufficiently intact and continues to provide effective water and sediment control, barrier does not necessarily require replacement.

DISMANTLING & REMOVING

Barriers shall be dismantled and/or removed, as required, when construction work is complete, and upslope areas have been permanently stabilized and after receiving permission to do so from the Engineer.

Regardless of site context, nonbiodegradable material and components of the sediment barriers, including photo-biodegradable fabric, plastic netting, nylon twine, and silt fence, shall be removed and disposed off-site by the Contractor.

For naturalized areas, biodegradable, natural fabric, and material may be left in place to decompose on-site. In urban, residential, or other locations where aesthetics is a concern, the following shall apply:

- Compost filter tube fabric shall be cut and removed, and compost shall be raked to blend evenly (as would be done with a soil amendment or mulch). No more than a 2- inch depth

shall be left on soil substrate.

- Straw bales shall be removed and disposed off-site by the Contractor. Areas of trenching shall be raked smooth and disturbed soils stabilized with a seed mix matching adjacent seeding or existing grasses (i.e., lawn or native grass mix).
- Silt fence, stakes, and other debris shall be removed and disposed off-site. Site shall be restored to a neat and clean condition.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Item 767.121 will be measured and paid for at the contract unit bid price per FOOT of sediment control barrier which price shall include all labor, equipment, materials, maintenance, dismantling, removal, restoration of soil, and all incidental costs required to complete the work.

Sedimentation fence, when used in conjunction with compost filter tubes or straw bales, will be incidental to this item.

Additional barrier, such as double or triple stacking of compost filter tubes, will be paid for per foot of tube installed.

Barriers that have been driven over or otherwise damaged by construction activities shall be repaired or replaced as required by the Engineer at the Contractor's expense.

ITEM 767.6**AGED PINE BARK MULCH****CY**

This work consists of furnishing, transporting, and placing aged pine bark mulch in designated areas for erosion control, moisture retention, and aesthetic enhancement. Mulch placement shall be completed in accordance with these specifications and as directed by the Engineer.

EQUIPMENT

- The Contractor shall provide all necessary equipment for handling, transporting, and installing aged pine bark mulch, including but not limited to:
 - Trucks for material transport.
 - Mechanical or hand tools for spreading and leveling mulch.
 - Watering equipment (if required for dust control or moisture conditioning).

MATERIALS

- Aged pine bark mulch shall conform to MassDOT M6.04.5 and meet the following requirements:
 - Consist of 100% aged pine bark, free from chemicals, dyes, or synthetic additives.
 - Be well-composted and fibrous in texture.
 - Free from debris, trash, and large wood pieces.
 - Particle size shall range from $\frac{3}{8}$ inch to 3 inches, with no more than 10% of material exceeding 3 inches.

CONSTRUCTION METHODS

- Site Preparation:
 - The area to receive mulch shall be cleared of debris, weeds, and unsuitable material.
 - Soil amendments or erosion control measures shall be installed before mulch placement if required by the contract.
- Mulch Application:
 - Aged pine bark mulch shall be spread evenly to a uniform depth of 2 to 4 inches, unless otherwise specified.
 - Mulch shall not be placed directly against tree trunks, shrubs, or plant stems to prevent moisture-related damage.
 - The surface shall be raked smooth and leveled after placement.
- Inspection & Maintenance:
 - The Contractor shall inspect the mulch layer after heavy rainfall and replenish any areas where coverage has been displaced.
 - Any contaminated or decomposed mulch shall be removed and replaced at the Contractor's expense.

METHOD OF MEASUREMENT

- Aged pine bark mulch will be measured by the cubic yard of material satisfactorily placed and accepted by the Engineer.

PAYMENT

- The accepted quantity of aged pine bark mulch will be paid for at the contract unit price per cubic yard, which shall include all labor, materials, equipment, transportation, placement, and incidental costs necessary to complete the work.

ITEM 905.2**5000 PSI, 3/8 INCH, 710 HP CEMENT CONCRETE****CY**

This work consists of furnishing, placing, finishing, and curing cement concrete in accordance with these specifications and as shown on the plans or as directed by the Engineer. The concrete mix shall be designed to achieve the specified compressive strength (PSI), maximum aggregate size (inches), and cement content (lbs/cubic yard) while ensuring durability, workability, and compliance with MassDOT standards.

Concrete for post foundations (Item 901.3) shall meet the same material and performance requirements as Item 901 but shall be specifically placed and finished for structural post supports.

EQUIPMENT

- The Contractor shall provide all necessary equipment for mixing, transporting, placing, finishing, and curing concrete, including but not limited to:
 - Concrete mixers and delivery trucks.
 - Concrete pumps or conveyors as needed for placement.
 - Vibrators for consolidation.
 - Screeds and finishing tools.
 - Curing blankets or membranes.

MATERIALS

- All materials shall conform to MassDOT M4.02.00 and other applicable specifications.
 - Portland Cement: Shall meet ASTM C150 Type I or II.
 - Aggregates: Shall be clean, durable, and conform to the size requirements for the specified mix.
 - Water: Shall be potable and free of harmful contaminants.
 - Admixtures: If used, shall be MassDOT-approved and compatible with the mix.

CONSTRUCTION METHODS

- Preparation:
 - The placement area shall be properly formed, free of debris, and adequately compacted.
 - Reinforcement shall be placed as shown on the plans and secured before concrete placement.
- Mixing & Delivery:
 - Concrete shall be batched and mixed in accordance with approved mix designs.
 - Ready-mix concrete shall be transported and placed within the allowable time limit per MassDOT specifications.
- Placement & Finishing:
 - Concrete shall be placed without segregation and consolidated using internal vibrators.
 - Finishing shall be performed as specified, ensuring a smooth, durable surface.
- Curing & Protection:
 - Concrete shall be cured using wet curing methods, curing blankets, or approved curing compounds.

- Protection from cold or hot weather conditions shall be in accordance with MassDOT specifications.
- Quality Control & Testing:
 - Compressive strength tests shall be performed at intervals determined by the Engineer.
 - Slump and air content tests shall be conducted to ensure compliance with approved mix designs.

METHOD OF MEASUREMENT

- Concrete will be measured by the cubic yard of material satisfactorily placed and accepted.

PAYMENT

- The accepted quantity of cement concrete will be paid for at the contract unit price per cubic yard, which shall include all labor, materials, equipment, transportation, placement, finishing, curing, and incidental costs necessary to complete the work.

This work shall consist of furnishing, fabricating, delivering, and placing reinforcing steel, including deformed bars and welded wire reinforcement, in accordance with the MassDOT Standard Specifications for Highways and Bridges, Section M8.01 – Reinforcing Bars and Related Materials, and as shown on the contract plans.

EQUIPMENT

- The Contractor shall provide all necessary equipment for handling, cutting, bending, and placing reinforcing steel, including but not limited to:
 - Cutting and bending machines capable of producing required shapes
 - Wire tying tools and mechanical splice equipment
 - Supports and spacers to maintain proper positioning
 - Coating application equipment (for epoxy-coated reinforcement)

MATERIALS

- All reinforcing steel shall conform to the following standards:
 - Deformed Reinforcing Bars: ASTM A615 (Grade 60 or 75) or ASTM A706 (weldable)
 - Epoxy-Coated Reinforcing Bars: ASTM A775
 - Galvanized Reinforcing Bars: ASTM A767
 - Welded Wire Reinforcement (Fabric): ASTM A1064
 - Mechanical Splices (if required): ASTM A1034
 - Tie Wire: Minimum 16-gauge black or epoxy-coated wire for epoxy bars

The Contractor shall submit mill certifications and coating compliance reports for all reinforcement materials.

CONSTRUCTION METHODS

- Fabrication & Delivery
 - Reinforcement shall be fabricated to the required dimensions and shapes as shown on the contract drawings.
 - Bars shall be bent cold, and field bending shall be minimized.
- Placement
 - Reinforcement shall be accurately placed and securely tied at intersections to prevent displacement during concrete placement.
 - The minimum concrete cover shall conform to ACI 318 and project specifications.
 - Reinforcement supports (chairs and spacers) shall be plastic-coated or non-corrosive when used with epoxy-coated bars.
- Splicing & Welding
 - Lap splices shall be per the contract documents and ACI 318.
 - Mechanical splices shall develop at least 125% of the bar's specified yield strength.
 - Welding shall conform to AWS D1.4, and only ASTM A706 bars shall be welded unless otherwise approved.

METHOD OF MEASUREMENT

- Reinforcing steel will be measured by the pound (lb) of accepted material, including all bar reinforcement, welded wire reinforcement, and supports necessary for proper placement.
 - Measurement shall be based on the theoretical weight of the reinforcement as shown in the plans and approved bar lists.
 - The weight of tie wire, chairs, or spacers will not be included in the measurement.

The Contractor shall submit reinforcement weight calculations for verification before payment.

PAYMENT

- Payment will be made at the contract unit price per pound of accepted reinforcing steel. The price shall include:
 - Fabrication, delivery, and placement
 - Tying and securing bars in place
 - Epoxy coating (if applicable)
 - Mechanical splices (if required)

ITEM 983.2**RIPRAP****CY**

This work shall consist of furnishing, transporting, and placing riprap in accordance with the MassDOT Standard Specifications for Highways and Bridges, Section M2.02.0 – Riprap, and as shown on the contract plans.

EQUIPMENT

- The Contractor shall provide all necessary equipment for handling and placing riprap, including but not limited to:
 - Excavators, loaders, and dump trucks for material handling
 - Mechanical placement equipment or hand placement methods as required
 - Compaction equipment (if necessary for bedding material)

MATERIALS

- Riprap shall conform to MassDOT Section M2.02.0 – Riprap and meet the following requirements:
 - The D50 stone size shall match the values specified on the contract plans.
 - Riprap shall be composed of durable, angular rock resistant to weathering.
 - The material shall be free of overburden, shale, organic material, or other deleterious substances.
 - Bedding material or filter fabric shall be placed if required in the contract plans.

The Contractor shall submit material test reports for approval before installation.

CONSTRUCTION METHODS

- Preparation
 - The area shall be cleared and excavated as required to the design lines and grades.
 - A geotextile fabric or granular bedding layer shall be installed if specified.
- Placement
 - Riprap shall be placed to form a well-graded, compact mass.
 - Stones shall be individually placed or adjusted to minimize voids and achieve interlocking.
 - Machine placement is permitted, but hand adjustments may be required for uniform coverage.
- Quality Control & Inspection
 - The Engineer may require test sections to confirm proper placement and gradation.
 - Visual inspection will be used to verify compliance with gradation requirements.
 - If material is found to be non-compliant, the Contractor shall remove and replace at no additional cost.

METHOD OF MEASUREMENT

- Measured by the cubic yard of compacted in-place volume, based on design cross-sections.

PAYMENT

- Payment will be made at the contract unit price, which includes:

- Supplying, transporting, and placing riprap
- Excavation and preparation of the area
- Adjustments to achieve required thickness and uniformity
- Any necessary handwork for proper placement

END OF SECTION