

INVITATION FOR BID

Town of Hull

**Gunrock Beach Seawall
at Atlantic Avenue**

Contract No. **0002-GB**

Bids Due: **November 17**, 2021, 11:00 AM

**Hull Town Hall
253 Atlantic Avenue,
Hull, MA 02045**

Contact:

Christopher Gardner, Director
Town of Hull Department of Public Works

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**NOTICE TO CONTRACTORS
INVITATION FOR BIDS**



TOWN OF HULL
253 ATLANTIC AVENUE, HULL, MA 02045
PHONE: 781-925-2000 FAX: 781-925-0224

Contract No.: 0002-GB
Title: GUNROCK BEACH SEAWALL REPAIRS
Location: Gunrock Beach at Atlantic Avenue, Hull, MA

The purpose of this invitation for bids is to procure bids to construct the concrete encasement and seawall extension of the Gunrock Beach Seawall, and to construct concrete beach access stairs.

Bid documents will be available electronically thru GEI Consultants starting 10/27/2021 at 10 AM. Call 508-507-1619 to request bid documents.

Sealed proposals submitted on a form furnished by the Town of Hull will be received until **11:00 AM on Wednesday November 17, 2021** at the address above, and will be, at the time and place, publicly opened and read.

A pre-bidding conference for the prospective bidders will be held **on Wednesday November 3, 2021 at 2:00 PM** at **Hull Town Hall, 253 Atlantic Avenue, Hull, MA 02045.**

The project consists of but is not limited to the following:

- Limited demolition of existing seawall and full demolition of timber platform and concrete beach access stairs
- Construction of concrete encasement and cap on approximately 105 linear feet of existing seawall
- Construction of concrete beach access stairs with seawall.

The work is to be completed within **120 calendar days** of a notice to proceed; the Town of Hull emphasizes the need to complete this protection before the heart of the Nor'easter season is upon the project area.

MBE & WBE and the EEO/AA goals have been waived by the Town for this contract.

No work on the construction of the proposed work on-site can commence until all permits have been

received and properly processed.

No work requiring the reduction of the roadway access can commence until all materials have been received, the demolition and test pits are not included in this requirement.

Contractor's staging area shall be on the Town-Owned lots in front of and adjacent to 138 Atlantic Avenue. The Town has a strict no noise before 7:00 AM policy.

Each bid must be enclosed in a sealed envelope on which the bidder's return address, including the bidder's name, is listed, and be addressed as follows:

Town Manager
Town of Hull
253 Atlantic Avenue,
Hull, MA 02045

SEALED BID/PROPOSAL ENCLOSED

Contract No.: 0002-GB

Contract Title: GUNROCK BEACH SEAWALL REPAIRS

The successful bidder must furnish a performance and labor & materials payment bond in an amount equal to 100 percent of the total contract price.

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 Town of Hull reserves the right to waive any informality in or to reject any and all bids if it be in the public interest to do so.

The Town reserves the right to reject a bid that is filed by a company that the Town determines is not qualified or responsible to perform the work required. The Town reserves the right to waive any informality, to accept or reject, in whole or in part any or all bids, or take whatever other action may be deemed to be in the best interest of the Town.

The Town of Hull is an equal opportunity employer.



TOWN OF HULL

PART I INSTRUCTIONS TO BIDDERS

CONTRACTS FOR PUBLIC WORKS PROJECTS
ESTIMATED TO COST OVER \$50,000
SUBJECT TO THE PROVISIONS OF M.G.L. C. 30. SEC. 39M

Awarding Authority:

Town of Hull
253 Atlantic Avenue,
Hull, MA 02045
Telephone: 781-925-2000

Town of Hull Contract No.: 0002-GB
Title: GUNROCK BEACH SEAWALL REPAIRS
Project Scope:

Project consists of the following:

- Limited demolition of existing seawall and full demolition of timber platform and concrete beach access stairs
- Construction of concrete encasement and cap on approximately 105 linear feet of existing seawall
- Construction of concrete beach access stairs with seawall

Deadline for filing general bids is 11:00 AM on November 17, 2021.

The minimum wage rate and truck rate requirements for this Contract are located in Attachment A.

Bid forms for this Contract are located in Attachment B to these Instructions to Bidders.

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

As used herein, capitalized terms shall have the meaning assigned to them in the General Conditions of the Contract and the Town of Hull - 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 TOWN OF HULL 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 – EXPERIENCE

2.1 All bidders shall complete the attached and submit with its bid Bidder's Experience Record showing work of a similar type, size and cost that have been successfully performed. The Town may disqualify any bidder who does not supply satisfactory responses.

3 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: Town of Hull - 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 mail 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: Christopher Gardner, Director
Hull Department of Public Works
253 Atlantic Ave
Hull, MA 02045
Email: cgardner@town.hull.ma.us
Fax: 617-835-7368

3.3 It is the sole responsibility of the Bidder to ascertain the existence of any addenda issued by the Awarding Authority, whether or not the same are mailed to, or received by, Bidder. 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 on the Bid Form included in Attachment B to these Instructions to Bidders.

4.2 All entries on the Bid Form shall be typewritten or in ink.

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 The selected Bidder will be determined on the basis on the information requested in the notice to contractors.

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 on the basis of the sum of the base Bid and the accepted alternates.

4.7 Each Bid must be accompanied by a bid deposit in the form of a bid bond; cash; or a check certified by, or a treasurer's or cashier's check issued by, a responsible bank or trust company, payable to the Town of Hull. Any bid bond shall be (a) in a form satisfactory to the Awarding Authority, (b) with a surety company qualified to do business in the Commonwealth and (c) conditioned upon the faithful performance by the principal of the agreements contained in the Bid.

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 shall be enclosed in a sealed envelope on which the bidder's return address, including the bidder's name, is listed, and be addressed as follows:

Town Manager
Town of Hull
253 Atlantic Avenue,
Hull, MA 02045

CONSTRUCTION BID ENCLOSED

Contract No.: 0002-GB

Contract Title: GUNROCK BEACH SEAWALL REPAIRS

Bidder name:

Bidder business address:

5.2 All Bids must be received by the Awarding Authority at the address specified in these Instructions to Bidders 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 the Town of Hull Town Manager, whose address is set forth in subsection 5.1 above, 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 of 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 Town of Hull.

C. The Contractor shall submit two (2) originals of each certificate of insurance, acceptable to the Town of Hull, simultaneously with the execution of this Contract. Certificates shall show the Town of Hull as an additional insured as to all policies of liability insurance carried by the Contractor (except workers compensation) and shall state that the Contractor has paid all premiums and that none of the coverages shall be cancelled, terminated, or materially modified unless and until thirty (30) days prior notice is given in writing to the Town of Hull. The Contractor shall submit updated certificates prior to the expiration of any of the policies referenced in the certificates so that the Town of Hull shall at all time 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.

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

Umbrella or Excess Liability

The Contractor shall provide umbrella or excess liability insurance in an amount of at least

\$5,000,000.00

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 – SUBCONTRACTORS

8.1 The Massachusetts general laws, Chapter 30, Section 39F (3) (ii), states: for contracts awarded as provided in paragraph (a) 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. Fill in all subcontractors and material suppliers for the project on the Subcontractor Form and submit with your bid.

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 Town of Hull 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 as 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 Town of Hull 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.

- Town of Hull-Contractor Agreement
- Certificate of Corporate Vote
- Joint Venture Authorization (if appropriate)
- Performance and Payment Bonds with power of attorney attached
- Certificates of Insurance evidencing coverages in amounts required by the Contract Documents.

-Any other documents that the Awarding Authority may reasonably 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 Town of Hull as liquidated damages; provided that the amount of the Bid deposit that becomes the property of the Town of Hull 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.

**ATTACHMENT A:
PREVAILING WAGE SCHEDULE and TRUCK RATES**

These documents are not included but are available for review

M.G.L. c. 149, sections 26 and 27 provide as follows:

“ . . . Payments by employers to health and welfare plans, pension plans and supplementary unemployment benefit plans under collective bargaining agreements or understandings between organized labor and employers shall be included for the purpose of establishing minimum wage rates as herein provided.

. . . The aforesaid rates of wages in the schedule of wage rates shall include payments by employers to health and welfare plans, pension plans and supplementary unemployment benefit plans as provided in said section twenty-six, and such payments shall be considered as payments to persons under this section performing work as herein provided. Any employer engaged in the construction of such works who does not make payments to a health and welfare plan, a pension plan and a supplementary unemployment benefit plan, where such payments are included in said rates of wages, shall pay the amount of said payments directly to each employee engaged in said construction”

**ATTACHMENT B:
BID FORM FOR
PUBLIC WORKS PROJECTS**

To the Awarding Authority:

A. The undersigned proposes to furnish all labor and materials required for Contract No 0002-GB GUNROCK BEACH SEAWALL REPAIRS,;

Limited demolition of existing seawall and full demolition of timber platform and concrete beach access stairs. Construction of concrete encasement and cap on approximately 105 linear feet of existing seawall. Construction of concrete beach access stairs with seawall.

located in HULL, Massachusetts, in accordance with the accompanying plans and specifications prepared by: GEI Consultants, for the contract price specified below, subject to additions and deductions according to the terms of the specifications.

B. This bid includes addenda numbered: (please indicate by checking the box of each addenda number)

- No. 1 No. 2 No. 3 No. 4 No. 5 No. 6

C. The proposed contract price is

_____ Dollars

(\$_____). (The unit price proposals are on page 2 of this section).

**THE TOWN OF HULL SOLICITS THE FOLLOWING BIDS for Contract No 0002-GB
Gunrock Beach Seawall Repairs:**

Limited demolition of existing seawall and full demolition of timber platform and concrete beach access stairs. Construction of concrete encasement and cap on approximately 105 linear feet of existing seawall. Construction of concrete beach access stairs with seawall.

BID ITEM	Est. Quantity.	Unit Price	Total Amount in Written Words	Total Amount in FiguresS
ITEM 101 – SITE PREPARATION	1 Lump Sum	\$ _____	_____ dollars and _____ cents	\$ _____
ITEM 107 - DEMOLITION	1 Lump Sum		_____ dollars and _____ cents	\$ _____
ITEM 940.1 - CAST-IN-PLACE REINFORCED CONCRETE SEAWALL	131 Cubic Yards		_____ dollars and _____ cents	\$ _____
ITEM 940.2 - CAST-IN-PLACE REINFORCED CONCRETE STAIRS	77 Cubic Yards		_____ dollars and _____ cents	\$ _____
ITEM 975 - HANDRAILS	1 Lump Sum		_____ dollars and _____ cents	\$ _____
TOTAL BID PRICE			_____ dollars and _____ cents	

Transfer this amount to Line C above

D. The undersigned agrees that, if selected as the contractor, he/she will within five working days, Saturdays, Sundays and legal holidays excluded, after presentation thereof by the awarding authority, execute a contract in accordance with the terms of this bid and furnish a performance bond and also a labor and materials or payment bond, each of a surety company qualified to do business under the laws of the commonwealth and satisfactory to the awarding authority and each in the sum of the contract price, the premiums for which are to be paid by the contractor and are included in the contract price.

The undersigned hereby certifies that he is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed on the work and that he will comply fully with all laws and regulations applicable to awards made subject to section thirty-nine of Chapter 30 of the Massachusetts General Laws.

The undersigned further certifies under the penalties of perjury that this bid is in all respects bona fide, fair and made without collusion or fraud with any other person. As used in this subsection the word "person" shall mean any natural person, joint venture, partnership, corporation or other business or legal entity.

The undersigned further certifies under penalty of perjury that the said undersigned is not presently debarred from doing public construction work in the commonwealth under the provisions of section twenty-nine F of chapter twenty-nine, or any other applicable debarment provisions of any other chapter of the Massachusetts General Laws or any rule or regulation promulgated thereunder.

The undersigned further certifies under penalties of perjury that the undersigned is not debarred from doing public construction work under any law, rule or regulation of the federal government.

The undersigned hereby declares that the undersigned has carefully examined the Advertisement, Instructions to Bidders, Town of Hull - Contractor Agreement, General Conditions of the Contract, Special Conditions (if any), Plans and Specifications, all other Contract Documents, and also the Site upon which the proposed work is to be performed. The undersigned further declares that in regard to the conditions affecting the work to be done and the labor and materials needed, this proposal is based solely on the undersigned's own investigation and research and not in reliance upon any representation of any employee, officer or agent of the Town of Hull.

The undersigned further certifies under the penalties of perjury that:

- this bid is in all respects bona fide, fair and made without collusion or fraud with any other person;
- we are the only persons interested in this proposal;
- that it is made without any connection with any other person making any bid for the same work and without directly or indirectly influencing or attempting to influence any other person to bid or to refrain from bidding or to influence the amount of the bid of any other person or corporation;
- that no person acting for, or employed by, the Town of Hull is directly or indirectly interested in this proposal, or in any contract which be made under it, or in expected

profits to arise therefrom.

As used above the word "person" shall mean natural person, joint venture, partnership, corporation or other business or legal entity.

The undersigned certifies that it shall comply with the provisions of the Equal Employment Opportunity, Non-Discrimination, and Affirmative Action Program, if any, set forth in Article XII of the General Conditions of the Contract.

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 at that time as an informality, and to receive said data subsequently within a reasonable time as set by the Awarding Authority.

Date _____, 20__.

(Name of Bidder)

By _____
(Signature)

(Print Name and Title)

(Business Address)

(City and State)

(Telephone Number)

(Facsimile Number)

The following information is furnished by the Bidder for the information of the Town of Hull.

Is Bidder a corporation? _____

If so, incorporated in what state? _____

President _____

Secretary or Clerk _____

Treasurer _____

If Bidder is a foreign corporation, is it registered to do business in Massachusetts? _____

If Bidder is a foreign corporation and is selected, Bidder is required under M.G.L. c.

30, sec. 39L to obtain from the Massachusetts Secretary of State, One Ashburton Place, 17th floor, a certificate stating that the corporation is registered to do business in Massachusetts, and to furnish said certificate to the awarding authority prior to the award.

Is Bidder a general partnership or joint venture? _____
If so, name each partner or venture _____

Is Bidder a limited partnership? _____
Is Bidder registered in Massachusetts? _____
If so, name each general partner _____

If Bidder is a foreign limited partnership and is selected, Bidder is required under M.G.L. c. 30, sec. 39L to obtain from the Massachusetts Secretary of State, One Ashburton Place, 17th floor, a certificate stating that the partnership is registered to do business in Massachusetts, and to furnish said certificate to the awarding authority prior to the award.

For each general partner or venture that is a corporation, provide the following information (use additional sheets if necessary):

Name of corporation _____
State of incorporation _____
President _____
Secretary or Clerk _____
Treasurer _____

Name of corporation _____
State of incorporation _____
President _____
Secretary or Clerk _____
Treasurer _____

Is Bidder an individual? _____
Residence Address _____
Name under which Bidder does business _____

Business Address _____

If selected Bidder is an individual doing business under a different name then Bidder must furnish evidence of any required DBA filing.

BIDDER’S EXPERIENCE RECORD

The bidder shall state below work he/she has done of a character similar to that of the work included in the proposed contract and to give references that will enable the Town of Hull to judge relevant experience, skill and business standing. Please refer to the Notice to Contractor section for applicable requirements relative to completion of this form.

<u>COMPLETION DATE</u>	<u>PROJECT NAME</u>	<u>CONTRACT AMOUNT</u>	<u>DESIGN ARCHITECT</u>	<u>REFERENCE NAME</u>	<u>TELEPHONE NO.</u>
a.					
b.					
c.					
d.					
e.					
f.					

BIDDERS CHECKLIST

To ensure that your bids are acceptable to the Department, and are not rejected due to errors or omissions, we are providing this Checklist for your convenience.

1. Have you used the correct bid form provided in Attachment B to the Instructions to Bidders?
2. Have you properly identified the project, architect, etc., on your bid form?
3. Have the unit price totals been transcribed accurately to the Bid Form; Part I, Attachment B, Item C. Are your bid amounts, as expressed in figures and words, consistent?
The amount expressed in words will control.
4. Have you acknowledged all addenda issued, and followed the instructions contained in each one?
5. If you are a bidder and an alternate price is requested and you estimate that there is no change in price, did you indicate by writing "**no change**", "**N/C**", or "**0**"? Failure to provide a price, no change, N/C or 0 for an alternate by bidders when identified as part of a scope of work may result in rejection of your bid.
6. Have you added any information not called for, acknowledged an addendum that does not exist, or provided a price for an alternate not identified as part of your scope of work which can result in rejection of your bid?
7. Is your Bid Form **SIGNED** and dated?
8. Are all of your bid materials enclosed in a sealed envelope and labeled with the project information exactly as provided in the Instructions to Bidders?
9. Your bid **MUST** be received by the Awarding Authority prior to the deadline!
10. **Completed Subcontractor Form.**



**TOWN OF HULL
STANDARD CONSTRUCTION CONTRACT
Projects Subject to M.G.L. c. 30, sec. 39M**

PART II

TOWN OF HULL - CONTRACTOR AGREEMENT

Awarding Authority: TOWN OF HULL

This agreement ("Contract") is made as of the ____ day of _____, 20____, by and between the Town of Hull acting by and through the Awarding Authority identified above with a principal place of business at 253 Atlantic Avenue, Hull, MA02045, and _____ hereinafter called the "Contractor".

Terms used in this Town of Hull - 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 GUNROCK BEACH SEAWALL REPAIRS Contract No. 0002- GB, in accordance with and as described in the Plans and Specifications prepared by GEI Consultants ("Designer") and as modified by Addenda (if any) 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 complete within 120 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 _____ **dollars and XX cents** (\$_____.XX). 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:

Alternate No(s):

Article 4. Approved Subcontractors. Subcontractors to be used throughout this project shall be listed on the Subcontractor form and submitted with the bid documents. The Town of Hull reserves the right to contact the listed companies to ensure the work listed is being conducted by them.

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 any and 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 Town of Hull – 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 Town of Hull - Contractor Agreement

Article 7. Minority Business Enterprise, Women Business Enterprise and Service-Disabled Veteran-Owned Business Enterprises Participation Goals and Minority/Women and Service-Disabled Veteran-Owned Business Enterprises Workforce Utilization Percentages: The applicable goals, 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.

Included in the following pages are forms that must be submitted in duplicate by the successful low bidder:

- 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 7.1C.
 - B. ADDING IN THE DESCRIPTION **TOWN OF HULL AS ADDITIONAL INSURED.**
- EXECUTIVE ORDER 546 – CONTRACTOR CERTIFICATION
- EXECUTIVE ORDER 481 – CONTRACTOR CERTIFICATION
- EQUAL EMPLOYMENT OPPORTUNITY COMPLIANCE FORM

IN WITNESS WHEREOF, said Contractor has caused these presents to be signed in its name and its behalf and its corporate seal to be hereto affixed by its officers, duly authorized to do so, and the said Town of Hull has executed these presents, 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)

CONTRACTOR:

By: _____(SEAL)

Name: _____

Title: _____

Date: _____

TOWN OF HULL

By: _____

Name: _____

Title: _____

Date: _____

Approved as to matters of form

Town of Hull Legal Counsel

ATTACHMENT C

Forms Used During Contract Award and Execution

- Payment Bond
- Performance Bond
- Certificate of Corporate Vote
- Certificate of Compliance with State Tax Laws and with Unemployment Compensation Contribution Requirements
- Executive Order 546 – Contractor Certification
- Executive Order 481 – Contractor Certification
- Equal Employment Opportunity Compliance Form

PAYMENT BOND

BOND No. _____

Know all men by these presents, that

_____ as principal and _____ as surety are held and firmly bound unto the Town of Hull in the sum of,

_____ in lawful money of the United States of America, to be paid to the Town of Hull, 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 Town of Hull acting through its _____ ("Awarding Authority") bearing the date of _____, 20____ for the construction of Project No. _____ Contract No. _____ Project Name _____.

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 _____, 20 ____.

_____ (Seal)
(Print Name of General Contractor)

_____ (Seal)
(Print Name of Surety)

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 Town of Hull in the sum of

_____ in lawful money of the United States of America, to be paid to the Town of Hull, 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 Town of Hull acting through its _____ ("Awarding Authority") bearing the date of _____, 20____ for the construction of Project No. _____ Contract No. _____ Project Name _____.

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 Town of Hull , 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 not completed and/or is abandoned by the Contractor, or is terminated by the Town of Hull under the provisions of said Contract, said surety shall, if requested in writing by the Town of Hull , take such action as is necessary to complete the Contract.

In witness whereof we hereunto set our hand and seals this ____ day of _____, 20 ____.

_____ (Seal)
(Print Name of General Contractor)

_____ (Seal)
(Print Name of Surety)

By _____
(Signature – Title)

By _____
(Signature – Title)

Surety Address _____

CERTIFICATE OF CORPORATE VOTE

_____/20____

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

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

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

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

present and voting it was voted to authorize _____
(Name) of the Corporation to

execute (Officer Title)

and deliver on behalf of the Corporation the following contract and to act as principal to execute bonds in connection therewith, which contract and bonds were presented to and made a part of the records of said meeting:

Mass State Project No. _____

Project Title: _____

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

(Officer Title) of the Corporation and that said vote has not been repealed, rescinded or amended.

Name

Date

(CORPORATE SEAL)

SUBSCRIBED AND SWORN TO THIS ____ DAY OF _____, 20__ 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: _____

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: _____

Fax: _____

Email: _____

EQUAL EMPLOYMENT OPPORTUNITY COMPLIANCE FORM

Contractor's Certificate

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

Contractor's Certification

(Contractor)

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

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.

(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)

In order 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.

**Chapter 306 of the Acts of 2004
An Act Relative to the Health and Safety on Construction Projects**

GENERAL CONTRACTOR'S OSHA CERTIFICATION

_____ (Name of General Bidder) hereby certifies that it, and all its subcontractors who are not filed subbidders shall:

certify that all employees to be employed at the worksite will have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is a least 10 hours in duration at the time the employee begins work and who shall furnish documentation of successful completion of said course with the first certified payroll report for each employee.

Signed under the penalties of perjury. _____ (date)

Signature of authorized representative of contractor

Print name of authorized representative of contractor



TOWN OF HULL

PARTS III

GENERAL CONDITIONS OF THE CONTRACT

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 Town of Hull - 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 Town of Hull, the public agency awarding and administering this Contract, as identified in the Town of Hull - Contractor Agreement.

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 Town of Hull - Contractor Agreement.

Contract Documents: The documents listed in Article 6 of the Town of Hull - 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 Town of Hull - Contractor Agreement which is the total sum owed to the Contractor for all of the Work.

Town of Hull: The Town of Hull, 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 Town of Hull – Contractor Agreement.

Dispute Review Board: A panel of three experienced impartial reviewers organized and agreed upon by the Town of Hull 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, Town of Hull, 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 Town of Hull.

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 Town of Hull, 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 Town of Hull 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 in order 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 Town of Hull, less than one percent of the original contract price, or (2) the Contractor substantially completes the Work and the Town of Hull 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 Town of Hull - Contractor Agreement, Article II, Section 2 of these General Conditions of the Contract and otherwise in the Contract Documents.

Working Hours: This is identified in the technical specification for this Emergency Project.

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 Town of Hull – 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.

A. 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 of the duties and obligations set forth in the Contract Documents.

B. For all items within this Contract without specific technical specifications and/or publications denoted, and to supplement all conditions of this Contract above and beyond all references mentioned, refer to the Commonwealth of Massachusetts, Department of Public Works, Standard Specifications for Highways and Bridges, 1988 Edition, and all amendments; which is herein made part of this Contract in its entirety. Hereinafter known as the Standard Specifications.

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 Town of Hull.

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: Town of Hull - 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. Town of Hull.

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 Town of Hull, 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 Town of Hull 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 Town of Hull with respect to their work shall be initially resolved by the Town of Hull.

3. Inspection No Waiver.

No inspection by the Town of Hull 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 Town of Hull of any provision of this Contract.

ARTICLE IV: GENERAL PERFORMANCE OBLIGATIONS OF THE CONTRACTOR

The Contractor shall complete for the Contract Price all of 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 Town of Hull 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 Town of Hull shall be at the Contractor's risk and expense.

D. The Contractor shall be responsible for any and 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 Town of Hull 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 particular filed sub-bid section of the Specifications.

E. The Contractor shall be responsible to the Town of Hull 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 Town of Hull, 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 Town of Hull shall bill the Contractor directly for such costs.

I. Work performed outside of regular Working Hours without the consent or knowledge of the Town of Hull shall be subject to additional inspection and testing as directed by the Town of Hull. The cost of this inspection and testing shall be borne by the Contractor whether the Work is found to be acceptable or not. The Town of Hull 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 Town of Hull. The Superintendent shall be in attendance at 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 of 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 Town of Hull prior to commencement of construction together with such other information as the Town of Hull may reasonably require in order to determine whether or not to Approve of his or her appointment. Any change in the Superintendent shall require the prior consent of the Town of Hull. The Contractor shall establish an emergency telephone line by which the Town of Hull 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 Town of Hull shall notify the Contractor in writing that any worker is, in the Town of Hull'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 Town of Hull.

B. The Contractor shall employ a sufficient number of 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 Town of Hull's reasonable judgment due to a labor dispute, the Town of Hull shall have the right to require the Contractor to employ substitutes acceptable to the Town of Hull.

D. The Contractor shall bear the entire expense, and no separate or direct payment shall be made by the Town of Hull, as a result 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 particular 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 Town of Hull 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 Town of Hull, 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 so as 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 Town of Hull'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 Town of Hull whether or not 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 or not 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

Town of Hull 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 kept in a clean sanitary condition at all times 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 & Facilities.

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 present at all times while the Work is in progress. Instructions, notices, and other communications delivered there by the Town of Hull 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 & Supplies The Contractor shall erect an Office for the Resident Engineer if, and as required by the Special Conditions or Specifications of the Contract.

12. On-Site Communications.

A. Whereas, the project site is 1,500 feet long and work may be progressing in different areas at the same time, and whereas the project area has poor cellphone reception, the Contractor must provide and maintain suitable communication service, such as two-way radios, walkie-talkies with the Town's Representative throughout the work.

13. Project Sign. Not Used

14. Contract Documents and Samples at the Site.

The Contractor shall maintain at the Site for the use and information of the Town of Hull 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 Town of Hull and shall be delivered to the Town of Hull 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 Town of Hull 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, Town of Hull staff, or the general 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 Town of Hull and users of adjacent utilities and property;
- (3) insure 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 so as 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, Town of Hull'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 Town of Hull 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 Town of Hull.

E. When necessary, the Contractor shall cooperate with representatives of public service companies in order 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 at all time 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 Town of Hull. 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. Existing utilities may not be known by the Engineer or Owner. The Contractor assumes any and all risks associated with the damage, disruption or repair of any utilities that are disturbed by any action(s) of the Contractor in the prosecution of the work set forth herein. As such, the Contractor will assure the Owner that any and all repairs to utilities that are damaged by the Contractor's operations will be made expeditiously, in a professional, workman like manner and must be satisfactory to both the Engineer and Owner at no additional cost to the Owner.

H. If the Contractor wishes to have any utilities temporarily relocated for his/her convenience, other than those specified by Town of Hull, he/she shall submit such a request in writing to the Project Engineer. If the Town of Hull approves this request, the Contractor shall pay for the cost of the relocation at his/her sole expense.

I. 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 Town of Hull's direction and after an authorized agent of the Town of Hull has referenced their location.

J. The Contractor shall not injure or remove trees or shrubs without authorization from the Town of Hull.

K. 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 Town of Hull and at no additional expense to the Town of Hull.

L. Disturbance or damage to any structure shall be replaced or repaired by the Contractor to the satisfaction of the Town of Hull and at no additional expense to the Town of Hull.

M. The Contractor shall receive no extra compensation for protection and restoration of property unless said compensation is authorized in writing by the Town of Hull, as specified under Article VI I of the Contract General Conditions.

N. The Contractor shall not permit cutting or welding in or immediately adjacent to existing property of the Town of Hull or of anyone else without the Town of Hull's prior approval in each instance.

O. The Contractor shall designate by notice to the Town of Hull a responsible member of its organization at the Site whose duties shall include preventing accidents.

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

Q. 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 Town of Hull of such emergency.

16. Environmental Protection

A. The Town of Hull has secured 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 herein.

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 so as 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 Town of Hull. 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 so as 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 Town of Hull. No ropes, cables, or guys shall be fastened to or attached to any existing nearby trees for anchorages unless specifically approved by the Town of Hull. 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 Town of Hull. 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 uninfected areas.

E. Noise Control: The Contractor shall use every effort and every means possible to minimize noise caused by his/her operations which the Town of Hull 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 exhaustlines.

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 so as 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 in excess of 30 calendar days over the course of the construction period on the Project Site, shall be retrofitted with Emission Control Devices in order 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 general 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 unstabilized 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 Town of Hull, 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 keep the Work area clean at all times. 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 Town of Hull to a location approved by the Town of Hull. Documentation certifying proper disposal shall be submitted to the Town of Hull.

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 in excess of the refill materials required, in spoil banks off the lands owned by the Town of Hull. 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 Town of Hull 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 Town of Hull and adjacent properties.

19. Furnishings and Equipment. Not Used**20. Form for Sub-contract. Not Used****21. 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 Town of Hull 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 Town of Hull upon the written request of the Contractor.

22. Final Cleaning. Not Used**23. Maintenance Data. Not Used****24. Drainage Specifications. Not Used****25. Closeout Procedures.**

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

26. 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 Town of Hull has given final acceptance. Nothing herein shall limit the Contractor's responsibilities under Article IX or XV of these General Conditions of the Contract.

27. Photographs. See Supplementary General Conditions for requirements.**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 or not 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 Town of Hull 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 Town 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 Town of Hull 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 Town of Hull. All submittals shall be in digital format, an original and one copy shall be submitted to the Town Representative for final approval, The inspection and approval by the Town of Hull 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 Town of Hull such information and vouchers relative to the Work, the materials therefore, and the persons employed thereon, as the Town of Hull 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 Town of Hull, 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 Town of Hull 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 Town of Hull's approval a schedule of submittals which is coordinated with the Progress Schedule and allows the Town of Hull 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 Town of Hull. 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 Town of Hull's approval of Shop Drawings, Product Data, Samples or similar submittals unless the Contractor has specifically informed the Town of Hull in writing of such deviation at the time of submittal and the Town of Hull 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 Town of Hull'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 Town of Hull on previous submittals.
- I.** Informational submittals upon which the Town of Hull 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 Town of Hull 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 Town of Hull.

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 Town of Hull, 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 Town of Hull 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 Town of Hull 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 Town of Hull 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 Town of Hull or under its direction, the Contractor or his/her suppliers shall furnish such facilities as the Town of Hull 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 Town of Hull and accepted or estimated for payment, nor shall such obligate the Town of Hull 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.

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 Town of Hull (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 Town of Hull and deducted from the price. "Approved equal" shall mean an item with respect to which the Town of Hull shall have issued a written statement to the Contractor to the effect that the item is, in the Town of Hull's opinion, equal within the meaning of this paragraph to that prescribed in the Contract Documents.

A. The Contractor shall be responsible for providing the Town of Hull with any information and test results that the Town of Hull reasonably requires to determine whether or not a material is equal to a material named or described in the Contract Documents.

B. 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 Town of Hull'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 Town of Hull. If the Contractor's proposed substitution due to an exigency is declined, the Town of Hull shall, at its discretion, specify an "or equal" substitution.

C. 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 Town of Hull 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 Town of Hull 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 Town of Hull deems necessary or desirable to evidence such increased costs. In calculating the Contractor's increased costs, a deduction shall be made for the amount of 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

i. 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.

ii. 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

iii. Weight slips that indicate the load exceeding the legal load limit will not be countersigned by the Town of Hull.

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

d. 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.

e. 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 Town of Hull or otherwise. The Contractor shall notify the Town of Hull as soon as any such materials are so delivered, allow them to be examined by the Town of Hull, and furnish workers to assist therewith.

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

E. 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.

F. Where no inspection of materials is arranged by the Town of Hull and before such materials are incorporated into the work, the Contractor shall be required to submit to the Town of Hull 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 Town of Hull for a period of not less than three years from the date of final acceptance of final payment by the Town of Hull.
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 Town of Hull or

otherwise. The Contractor shall notify the Town of Hull as soon as any such materials are so delivered, allow them to be examined by the Town of Hull, 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 Town of Hull copies of such written permission shall be furnished by the Contractor.

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

The Town of Hull may reject materials if the Town of Hull 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 or not 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 Town of Hull. Should the Contractor fail to remove rejected material within a reasonable time, the Town of Hull 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 Town of Hull 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 Town of Hull. 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 Town of Hull.

7. Measurement

- a. The method of measurement for materials necessary for the proper execution of the Work is set forth in 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 Town of Hull.
- 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 Town of Hull 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 Town of Hull.
- 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 Town of Hull 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 Town of Hull.
- 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 Town of Hull. Material listed on weight slips that are not countersigned by the Town of Hull shall not be included for payment under the Contract.
- j. When requested by the Contractor and approved by the Town of Hull 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 Town of Hull.
- 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 Town of Hull 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 Town of Hull, said schedule shall constitute the Progress Schedule. The Contractor shall at the end of each month, or more often if required, furnish to the Town of Hull 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 Town of Hull - 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 Town of Hull, the Contractor fails to comply with the construction schedule as set forth in the Contractor's bid or the Project specifications, the Town of Hull 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 Town of Hull, shall have been sufficiently corrected.

E. If, in the opinion of the Town of Hull, the Contractor fails to comply with the construction schedule, and whether or not the Town of Hull shall have given the Contractor a notice described in D above, the Town of Hull 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 Town of Hull requires, increasing its forces, equipment and plant) and continue to do so until in the opinion of the Town of Hull the failure is corrected, the Town of Hull 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 Town of Hull'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 Town of Hull 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 Town of Hull elects to have another contractor perform a portion of the Work under this Article.

F. The Town of Hull shall deduct the cost of any actions the Town of Hull 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 Town of Hull 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 Town of Hull's sole goal will be to complete the Work that it elects to complete within the time limits stated in the Contract or at the earliest possible date thereafter. Consequently, the Town of Hull 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 Town of Hull'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 Town of Hull incurs in completing all or any portion of the Work is less than the amount that the Contract Documents attribute to that Work, the Town of Hull will pay or credit the difference to the Contractor, less any other costs and expenses that the Town of Hull 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 Town of Hull - Contractor Agreement, the Town of Hull has determined that its damages as a result 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 Town of Hull the sum designated as liquidated damages in the Contract for each and every 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 Town of Hull 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 Town of Hull 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 Town of Hull resulting solely from the fact that the Work is not completed on time.

C. The Town of Hull 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 Town of Hull 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 Town of Hull's rights hereunder, at law or in equity.

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

F. Failure by the Town of Hull to specify a sum as liquidated damages in the Town of Hull - 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 Town of Hull'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 Town of Hull, the Contractor shall be entitled to an extension of time. The length of the extension shall be sufficient in the opinion of the Town of Hull for the Contractor to complete the Work. Although no delay shall increase the Contract Price, the Town of Hull 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 Orderform.

B. If a suspension, delay, interruption or failure to act of the Town of Hull 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 Town of Hull 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 Town of Hull:

"(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.

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

D. The Town of Hull 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 provided that they do not interfere with the proper functioning of the facility.

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

occupancy.

F. Occupancy and/or use of any part of the Work prior to Final Acceptance by the Town of Hull 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.

G. When the Work, or portion thereof which the Town of Hull 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 Town of Hull, the Punch List identifying those items of unfinished or unacceptable Work that remain to be performed or corrected under the Contract.

H. 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 Town of Hull of proposed changes in insurance in accordance with the provisions of this Contract, and provide to the Town of Hull 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 Town of Hull 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 Town of Hull 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 Town of Hull and obtain written receipts for same;
- (9) Make final changes of lock cylinders or cores and advise the Town of Hull of the change of project security responsibility;
- (10) Complete start-up of systems, and instruct Town of Hull 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 Town of Hull);
- (12) Submit final utility meter readings and similar information and advise the Town of Hull 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 Town of Hull's inspection for a Certificate of Final Acceptance in accordance with the Contract Documents. The Town of Hull 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 Town of Hull shall notify the Contractor of any additions to the Punch List. In connection with the execution of the Certificate of Final Acceptance, the Town of Hull 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 of the Work required by this Contract, including Change Orders and Punch List Items, the Contractor shall submit the following completed items to the Town of Hull 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 Town of Hull, 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 Town of Hull 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. Re-inspection; Final Acceptance. After notification from the Contractor that all remaining contract exceptions, omissions and incompletions have been completed (with the exception of 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 Town of Hull shall inspect the Work to verify the completion of the same. If the Work is satisfactory, the Town of Hull 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 Town of Hull for a re-inspection of the Work with the Town of Hull, and shall thereafter inspect the Work at the time scheduled. Based on this inspection and on prior inspections, the Town of Hull 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 Town of Hull in writing.

ARTICLE VII: CHANGES IN THE WORK

1. Change Orders Generally.

A. The Town of Hull 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 Town of Hull 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 Town of Hull. The Town of Hull 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 Town of Hull 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 Town of Hull-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 Town of Hull.

D. The Contractor shall immediately perform any Change Order work that is ordered by the Town of Hull.

Whenever a Change Order is issued and said Change Order will cause a change in the Contractor's cost, the Contractor or the Town of Hull 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 Town of Hull 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 Town of Hull shall unilaterally determine the costs attributable to the change and provide the Contractor with a written notice to that effect. The

determination of the Town of Hull 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 Town of Hull within thirty days of receipt of said notice, to the Commissioner of the Town of Hull 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 Town of Hull as aforesaid, the Contractor shall be required to engage in the mediation procedures set forth in Section 5 of this Article VII, should the Town of Hull require such mediation.

During the negotiation of an equitable adjustment in the Contract Price, the Contractor shall, if requested, provide the Town of Hull 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 Town of Hull subsequently determines that the data submitted by the Contractor was incomplete, incorrect or not current, the Town of Hull 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 Town of Hull: (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;

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);

(c) 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);

(d) plus (or minus) the actual direct additional premium costs and expenses incurred as a result 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 Town of Hull 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 Town of Hull, 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 as a result 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 period 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."

1. 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 Town of Hull or his designee described in Section 4.B above, the Town of Hull shall retain the option at its sole discretion of initiating a process whereby the Town of Hull 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 Town of Hull 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 Town of Hull may require. Each item in the schedule shall include its proper share of overhead and profit. When approved by the Town of Hull, 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 Town of Hull all expenses, losses and damages, as determined by the Town of Hull, 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 Town of Hull - Contractor Agreement, the Contractor shall pay to the Town of Hull liquidated damages as provided in Article VI, Section 2 of these General Conditions of the Contract.

C. 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 Town of Hull be conclusively deemed to be the accurate amount due from the Contractor therefor in all accounting with the Town of Hull. If the moneys retained under this Contract are insufficient to pay the sums found by the Town of Hull to be due under the claims for labor and materials filed as aforesaid, the Town of Hull may, at its discretion, pay the same, and the Contractor shall repay to the Town of Hull all sums paid out. The Town of Hull 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 Town of Hull.

D. 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.

3. Retention of Moneys by the Town of Hull.

A. The Town of Hull 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 Town of Hull's expenditures for the Contractor's account, (2) to secure the Town of Hull'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 Town of Hull as a result of the failure of the Contractor to perform its obligations hereunder. The Town of Hull may retain, until all claims are settled, such moneys as the Town of Hull estimates to be the fair value of the Town of Hull'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 Town of Hull 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 Town of Hull 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 Town of Hull be conclusively deemed to be the accurate amount due from the Contractor therefor in all accounting with the Town of Hull. If the moneys retained under this Contract are insufficient to pay the sums found by the Town of Hull to be due under the claims for labor and materials filed as aforesaid, the Town of Hull may, at its discretion, pay the same, and the Contractor shall repay to the Town of Hull all sums paid out. The Town of Hull 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 Town of Hull.

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 Town of Hull - Contractor Agreement, in writing and in the manner prescribed by the Town of Hull, 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 Town of Hull may require, including without limitation, lien waivers and other evidence, on such forms as the Town of Hull may require, establishing that title to the equipment or materials is unencumbered and has been transferred to the Town of Hull. If there is no Resident Engineer assigned to the Contract, the Town of Hull shall designate a person at the project field office or alternatively the home office of the Town of Hull. 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 Town of Hull 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 Town of Hull 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 Town of Hull 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 Town of Hull 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 Town of Hull of: (1) an acceptable transfer of title on the form provided by the Town of Hull; (2) written certification by the Contractor (or applicable subcontractor) on the form provided by the Town of Hull 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 Town of Hull; (3) a stored materials insurance binder that covers the materials for which payment is requested, that names the Town of Hull 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 Town of Hull (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 Town of Hull 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 Town of Hull has made changes, and the provisions of said section 39G shall govern payments for public works projects on which the Town of Hull 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 Town of Hull. The Town of Hull 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 Town of Hull 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 period 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. 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. In the event that 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, subsequent to 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”

7. Liens

Neither the final payment nor any part of the retained percentage shall become due until the Contractor, if required, delivers to the Town of Hull 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 Town of Hull, to indemnify him against any lien. If any lien remains unsatisfied after all payments are made, the Contractor shall refund to the Town of Hull, all moneys that the latter may be compelled to pay in discharging such a lien, including all costs and a reasonable attorney's fee.

8. 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 Town of Hull, 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 Town of Hull, or of any person relating to or affecting the Work, except the claim against the Town of Hull 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 Town of Hull be defective or require replacing or repairing, or damage to other property of the Town of Hull is caused by any defect in the Work, the Town of Hull 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 Town of Hull within ten (10) days from the date of the giving of such notice, then the Town of Hull may employ other persons to make the same. The Contractor agrees, upon demand, to pay to the Town of Hull 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 Warrantees.

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 Town of Hull 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 the amount of 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 not included, but is available to Bidders, listing the prevailing minimum wage rates that must be paid to all workers employed in the Work. The Town of Hull 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 Town of Hull 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 Town of Hull 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 Town of Hull. 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 Town of Hull.

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 Town of Hull 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 Town of Hull 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 Town of Hull 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 Town of Hull 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 Town of Hull 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 Town of Hull 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 Account" 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 aspect 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 in regard to financial statements, means an examination of records by an independent certified public accountant in accordance with generally accepted accounting principles and auditing standards for the purpose of expressing a certified opinion thereon, or, in the alternative, a qualified opinion or a 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 Town of Hull 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 Town of Hull 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.

F. The Contractor shall file with the Town of Hull 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.

G. The Contractor shall file with the Town of Hull 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 on the basis of 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 Town of Hull upon request.

B. The office of Inspector General and the Town of Hull 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 Town of Hull to enter into this Contract (the "Bid Pricing Materials") for at least six years after the Town of Hull makes final payment under this Contract.

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

This Contract includes the provisions of the Town of Hull'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

Not Used.

ARTICLE XIV: INSURANCE REQUIREMENTS

The Contractor shall carry insurance, in the amounts and types specified in Section 23 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 and hold harmless the Town of Hull, 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 indemnification, defense and hold harmless rights and obligations shall accrue immediately upon the utterance of a claim or complaint covered by this agreement, regardless of other claims simultaneously brought, and shall not be

contingent upon the merits of such claim or questions of fact raised by the claim or complaint. This obligation will survive any termination or expiration of this contract.

The Contractor shall be obligated as provided above, regardless of whether or not 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 any and 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. Town of Hull's Actions.

The obligations of the Contractor under Section 1 above shall not extend to the liability of the Town of Hull, 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 Town of Hull, or (ii) the giving of or the failure to give directions or instructions by the Town of Hull, 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 Town of Hull, 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 Town of Hull 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.

Not Used.

ARTICLE XVII: TERMINATION OF CONTRACT

1. Termination for Cause.

A. The Town of Hull 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 Town of Hull 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 Town of Hull 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 Town of Hull, 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 Town of Hull 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 Town of Hull 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 subsequent to the termination's effectiveness. In the event of such termination, and without limiting any other available remedies, the Town of Hull 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 Town of Hull 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 of the Contractor's obligations under this Contract.

If the Town of Hull 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 Town of Hull 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 Town of Hull as directed by the Town of Hull. In such case the Town of Hull shall not make any further payments to the Contractor until the Work is completely finished. The Town of Hull 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 Town of Hull 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 Town of Hull, 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 Town of Hull's extra services and Project representative services required, in the opinion of the Town of Hull, 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 Town of Hull out of any moneys then due or to become due the Contractor under this Contract.

E. All sums, damages, and expenses incurred by the Town of Hull 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 Town of Hull.

2. Termination For Convenience.

A. The Town of Hull 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 Town of Hull 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 Town of Hull in a safe condition; (5) transfer to the Town of

Hull 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 Town of Hull 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 Town of Hull, 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 Town of Hull shall not be deemed to constitute a representation or waiver of any right hereunder by the Town of Hull as to the qualifications or the responsibility of the Contractor or Subcontractor(s).

2. Non-Appropriation.

The Town of Hull 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 Town of Hull may immediately terminate or suspend this Contract in the event that 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 Town of Hull 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 Town of Hull shall have any personal liability for the obligations of the Town of Hull 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 and maintained in the courts of the Commonwealth of Massachusetts in Plymouth County.

7. Standard Forms.

Unless directed otherwise in writing by the Town of Hull, the Contractor shall use the standard forms in use by the Town of Hull.

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 Town of Hull provided in this Contract shall be construed as cumulative and may be exercised simultaneously or in any order as determined by the Town of Hull in its sole discretion. The Town of Hull 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 Town of Hull - Contractor Agreement, or when delivered by courier to either location. All addresses for the Contractor must include a valid street address and any change of address must similarly be a valid street address. Unless otherwise specified in writing by the Town of Hull, notices and deliveries to the Town of Hull shall be effective only when delivered to the Town of Hull at the address specified in the Town of Hull - 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 Town of Hull 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 Town of Hull 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 of 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 ensure to the fullest extent 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 also 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.

2. 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. In the event that 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 day 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:

(I) 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;

(1) The suspension of any payment or part thereof due under the Contract until such time as the Contractor or any subcontractor is able to demonstrate his compliance with the terms of the Contract;

The termination, or cancellation, of the Contract, in whole or in part, unless the Contractor or any Subcontractor is able to demonstrate within a specified time his compliance with the terms of the contract;

(2) 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 is able to demonstrate that it is in compliance with 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 is in compliance. Upon final determination of the Commission, the Awarding Authority, based on the recommendation of the Commission, shall either lift the sanctions or re-impose 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 the General Conditions of the Contract

INDEX OF THE COMMONLY USED FORMS

(Forms used during bidding are located 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
Certificate of Final Inspection, Release and Acceptance – E-2
Subcontractor Form**

CONTRACTOR'S WEEKLY WORKFORCE REPORT

Town of Hull 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:													

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. _____

WEEKLY PAYROLL REPORT FORM

Town of Hull 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) Total Hours	(B) Hourly Base Wage	Employer Contributions			(F) [B+C+D+E] Hourly Total Wage (prev.	(G) [A*F] Weekly Total Amount
		S	M	T	W	T	F	S			(C) Health & Welfare	(D) Pension	(E) Supp. Unemp.		

NOTE: Every contractor and subcontractor is required to submit a copy of their weekly payroll records to Town of Hull. 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 _____

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 is 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: _____ / _____, 200_____

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 _____

**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

Resident Engineer Date Project Manager Date

Project Engineer Date

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 Town of Hull.

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 Town of Hull 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

Subcontractor Form

M.G.L. Ch. 30, SS 39F requires written approval of all subcontractors for contracts issued under Ch. 30 SS 44F-I, this form included in the contract documents is the Contract Administrator's acknowledgement of the company's association with this project

In the space below identify all subcontractors proposed to be used throughout this project; this includes all companies that is performing work on-site, suppliers for major material components of the project (such as concrete, reinforcing steel, rock for revetments). *This form can be copies if additional space is needed.*

Contract Item No. _____ Subcontractor _____ Will Perform _____

Address of Subcontractor _____ Years in Business _____

Contact Person _____ Telephone No. _____ Email: _____

Contract Item No. _____ Subcontractor _____ Will Perform _____

Address of Subcontractor _____ Years in Business _____

Contact Person _____ Telephone No. _____ Email: _____

Contract Item No. _____ Subcontractor _____ Will Perform _____

Address of Subcontractor _____ Years in Business _____

Contact Person _____ Telephone No. _____ Email: _____

Contract Item No. _____ Subcontractor _____ Will Perform _____

Address of Subcontractor _____ Years in Business _____

Contact Person _____ Telephone No. _____ Email: _____

Contract Item No. _____ Subcontractor _____ Will Perform _____

Address of Subcontractor _____ Years in Business _____

Contact Person _____ Telephone No. _____ Email: _____

Contract Item No. _____ Subcontractor _____ Will Perform _____

Address of Subcontractor _____ Years in Business _____

Contact Person _____ Telephone No. _____ Email: _____



TOWN OF HULL

PARTS IV

**SUPPLEMENTARY GENERAL CONDITIONS
OF THE CONTRACT**

SUPPLEMENTARY GENERAL CONDITIONS

1.01 WORK COVERED BY CONTRACT DOCUMENTS

The work under this contract consists of concrete encasement of the GUNROCK BEACH SEAWALL in Hull, Massachusetts as described on the Design Drawing and in the Specifications herein. The Bid includes, but is not limited to, all supervision, labor, materials, tools and equipment, survey, safety, quality control, vibration monitoring, & mobilization and demobilization necessary to perform the following:

- Limited demolition of existing seawall and full demolition of timber platform and concrete beach access stairs
- Construction of concrete encasement and cap on approximately 105 linear feet of existing seawall
- Construction of concrete beach access stairs with seawall.

1.02 CONTRACTOR USE OF SITE AND ACCESS

A. All work and trucking shall occur from 7:00 AM to 7:00 PM, Monday through Friday. No work will be permitted on weekends or Holidays, except as approved or required by the Owner.

B. Site access shall be along the landside portion of the site on Atlantic Avenue and Gun Rock Avenue adjacent to the work area, as shown on the Contract Drawings.

C. The Contractor shall submit a storm plan that outlines provisions for relocating or securing equipment in the event that a Nor'easter or significant storm event is forecasted. During significant storms, the entire barrier beach area landward of the seawall is subjected to storm wave overwash. The storm plan must include provisions for removing all equipment and stockpiled material that could potentially be mobilized by storm wave action and overwash.

D. Contractor staging areas shall be as indicated on the contract drawings.

E. The Contractor shall minimize the disturbance to the existing adjacent shoreline, surrounding vegetation, sidewalks, roadways, navigation channel, and mooring area.

F. The Contractor shall repair, at its own expense, any damage caused to the public or private property; remove from the site all debris, excess materials, tools, and equipment; and shall leave the premises in a neat and orderly condition, to the satisfaction of the Owner's Representative and the Owner.

G. The Contractor shall obtain written permission, in the form of a Land Use Agreement (LUA); from property owners to trespass and/or transgress their properties where an easement has not been granted, copy of each agreement signed shall be submitted to the Owner Representative.

H. Utilities shown on the contract documents are based on field observation and are approximate. Prior to start of work, the Contractor shall locate all utilities impacted by the work including underground and overhead utilities. The Contractor shall notify "Dig Safe" and local utilities and services as applicable prior to commencement of any work at the sites. The Contractor shall protect existing services against damage for the duration of the work.

I. If the Contractor, in the course of work, uncovers or otherwise encounters any artifacts, whether historic or prehistoric, the Contractor shall notify the Owner's Representative immediately and stop all work in that vicinity until directed by the Owner's Representative.

J. If the Contractor, in the course of excavation, uncovers or otherwise encounters any suspected hazardous or unidentified substances, the Contractor shall notify the Owner's Representative immediately and stop all work in that vicinity until directed by the Owner's Representative.

K. The Contractor shall coordinate temporary roadway closures and limitations with the Owner's Representative. The Contractor shall obtain governing authority's written permission, when required, to close or obstruct streets, walks and adjacent facilities. Provide alternate routes around closed or obstructed traffic ways, when required by governing authorities. Police Details will be paid by the Town with coordination and communication with the Contractor.

1.03 DELIVERY OF MATERIAL AND EQUIPMENT

A. The Contractor shall determine appropriate route for delivery of materials and equipment to the project site. The Contractor shall verify with the governing agency, and conform to, restrictions and load limitations along proposed hauling routes. Contractor to submit documentation that the hauling route and method of delivery meet restrictions and load limits, as applicable.

1.04 CONSTRUCTION SCHEDULES AND SUBMITTALS

A. Unless otherwise specified, within ten (10) calendar days from the Notice to Proceed the Contractor shall submit to the Owner's Representative a complete schedule of values for all items that shall be paid for under this Contract. This schedule of values shall show all relative costs to the item as bid, such as the costs of material, labor, mobilization and demobilization, survey and all incidentals to the item.

B. The Contractor shall submit to the Owner's Representative a construction schedule within ten (10) calendar days before the start of construction. The Construction schedule shall be maintained on site for review during site meetings. If a major change is made to the schedule, the updated schedule shall be submitted to the Owner's Representative immediately. No work may begin under the contract until the progress schedule, has been approved by the Owner.

C. A written Sequence of Operations describing all phases of the work and the manner the work is to be completed shall be submitted to the Owner with the project schedule.

D. Upon the Contractor's receipt, the Contractor shall submit to the Owner's Representative two (2) copies of any and all written permissions from the proper authorities, to close or obstruct streets, walks and adjacent facilities along with the plans for the approved alternate route(s) to be established.

E. The Contractor shall submit shop drawings and product data and information as required by sections of these Specifications and Contract Documents.

1.05 INSPECTIONS

A. The Owner will assign an inspector and/or resident engineer to this project on either a full-time or part-time basis, as required to cover the work under this Contract. The inspector or resident engineer shall be the Owner's Representative for this project.

B. The Owner's Representative must be notified at least 48 hours in advance of all material shipments in order make arrangements for the shipment to be inspected as they arrive to the site.

C. All materials or equipment that are not suitable for use on this project and/or have been rejected by the Owner's Representative shall be removed from the site immediately. The cost for removal of unsuitable and/or rejected materials shall be the responsibility of the Contractor.

D. The Owner's Representative shall be permitted at all times to check the lines, grades, elevations, reference marks, batter boards, etc. Set by the Contractor. Any errors or discrepancies in these items discovered by checks shall be corrected by the Contractor. Such checks shall not be construed to be an approval of the Contractor's work and shall not relieve or diminish in any way the responsibilities of the Contractor for the accurate and satisfactory completion of the entire work. The Contractor shall be available to assist the Owner's Representative with these checks as needed approval of the Contractor's work and shall not relieve or diminish in any way the responsibilities of the Contractor for the accurate and satisfactory completion of the entire work. The Contractor shall be available to assist the Owner's Representative with these checks as needed.

E. The Contractor shall assist the Owner's Representative in field inspections and measurements. It is recommended that the contractor's site superintendent reviews the project and verify quantities, prior to commencement of work on-site.

1.06 PHOTOGRAPHS

A. The Contractor shall, at its own expense, furnish the Owner's Representative with digital color photographs and/or videos of the project. Photographs/videos shall be scheduled at low tide to reveal as many site features as possible. The photographs/videos shall be taken with a digital camera and electronic files of each shall be furnished to the Owner's Representative.

B. The Contractor shall complete pre-construction photographs/videos of the project site, storage area and surroundings to document the pre-construction conditions. The photographs/videos shall document the entire GUNROCK BEACH Seawall and Revetment to fully document existing conditions and areas which may be impacted by construction activity, including roadway access points and staging area(s). Stationing along the GUNROCK BEACH Seawall and Revetment shall be marked prior to the pre-construction photographs/videos and shall be clearly visible in the photographs/videos.

C. The Contractor shall complete photographs/videos as work progresses and as follows:

- Before commencing repair.
- During each stage of repair operations.
- After the completion of repair.

D. The Town of Hull requires the Contractor shall furnish the Town of Hull two (2) sets of suitable 8" X 10" color photographs of the construction area, and any related work areas. The photographs shall be of all existing conditions prior to any work, during operations and placement of stone to ensure no damage to existing structures and after all work is completed.

E. 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.

F. Upon completion of all work under this contract, the Contractor shall deliver the required photographs in binders clearly identified, to the Town of Hull. Photographs will be placed in acetate sleeves and bound in two booklet form.

G. The contractor shall submit two (2) CD's with all digital photographs taken throughout the project to the Town of Hull.

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

1.07 QUALITY CONTROL AND WORKMANSHIP

A. Maintain quality control, equipment, services, site conditions, and workmanship, to produce work of specified quality.

B. Comply with industry standards except when more restrictive tolerances or specified requirements indicate more rigid standards or more precise workmanship.

C. Perform work by persons qualified to produce workmanship of specified quality.

1.08 CONSTRUCTION FACILITIES

A. Provide and maintain temporary sanitary facilities as required.

B. Contractor shall provide on-site phone service, or other telephone facilities such that the Contractor can be reached at any time throughout the workday.

C. Contractor shall provide phone numbers for communication and emergency contact during off work hours.

A. It is the responsibility of the Contractor to obtain all other permits, inspections and all other requirements not issued within this Specification necessary to complete the work under this Contract; the cost of all fees associated with these permits, inspections and other requirements shall be borne by the Contractor.

B. The Contractor shall comply with all applicable local, state and federal requirements, as well as standard industry standards and practices, regarding materials, methods of work and disposal of excess and waste materials.

C. Copies of all permits for this project shall be at the project site at all times for the duration of the project. All permits that are to be posted shall be in a conspicuous place for visual inspection by any agency.

D. The Contractor shall provide and maintain a DEP Wetland project signs in conformance with the Order of Conditions DEP File #SE35-1636.

1.10 SURVEY CONTROL

A. The Contractor shall locate, protect and maintain bench marks, monuments, control points and project engineering reference points. The reference points shall be included on the pre-construction and As-Built plans which shall be submitted to the Owner's Representative. The submission shall include electronic files and three (3) hard copies of the plans.

B. The pre-construction survey and post-construction survey and As-Built plan shall survey the entire GUNROCK BEACH project areas, approximately 150 linear feet and include the beach areas, the wall, the roadway, buildings, sidewalks, utilities, and the staging areas.

C. The Contractor shall provide, at its own expense, all materials and labor as may be required to establish and maintain all project control range lines, additional reference marks and line and grade stakes. The Contractor shall maintain the project control throughout the duration of the project, at the Contractor's own expense.

D. All work shall conform during its progress and on its completion to the lines and grades given by the Contract Documents and as specified herein. The work shall be done in a thoroughly substantial and workmanlike manner, in accordance with the contract Drawings, these specifications, and as directed by the Owner's Representative.

E. The Contractor shall make, check and be responsible for all measurements and dimensions necessary for proper construction.

F. The Contractor shall provide an as-built survey of the revetment for approval of the Owner's Representative prior to demobilization of work.

1.11 COOPERATION WITH OTHERS

A. This project is a precursor to a major roadway rehabilitation project, there may be other contractors working near or adjacent to the project area. Each Contractor shall conduct his work so as not to interfere with or hinder the progress or completion of the work being performed by other Contract and/or Contractors.

1.12 ENVIRONMENTAL CONDITIONS

A. The Contractor is required to adhere to all conditions within the environmental permits issued for this project. Special attention is directed to ensuring all materials and debris is removed from the beach areas each day and that no materials is to be stockpiled or stored in front of the seawall.

1.13 COSTS OF SUPPLEMENTARY GENERAL CONDITIONS

A. The costs of the above paragraphs shall be included in the Contract Price of other items within this contract and no direct or separate payment shall be made to the Contractor as herein specified.

END OF SECTION



TOWN OF HULL, MASSACHUSETTS

PART V

TECHNICAL SPECIFICATIONS

ITEM 101	SITE PREPARATION
ITEM 107	DEMOLITION
ITEM 940.1	CAST-IN-PLACE REINFORCED CONCRETE SEAWALL
ITEM 940.2	CAST-IN-PLACE REINFORCED CONCRETE STAIRS
ITEM 975	HANDRAILS



TOWN OF HULL, MASSACHUSETTS

ENVIRONMENTAL PERMITS

Hull Order of Conditions



TOWN OF HULL

ATTACHMENT D

DESIGN PLANS

Project Schematics, Property Line Survey Plan are within an attached file

Original Project Plans will be available for review at the Pre-Construction Meeting

ITEM 101 SITE PREPARATION
ITEM 107 DEMOLITION

WORK INCLUDED IN THIS SECTION

Site Preparation shall consist of preparatory work, operations, supervision, survey and any incidentals including, but not limited to, those necessary for the movement of personal, equipment, supplies, and incidentals to the site prior to the beginning of the project, and from the site following the completion of the project. In addition this item shall consist of the establishment and removal of all contractor's field offices, buildings, and other facilities necessary for work on the project and all other work and operations which must be performed or for costs which must be incurred prior to the beginning of the project, and following the completion of the project. This shall also include any operations necessary for the cleanup of the site following construction, which must be performed in an effort to return the site to its natural condition.

The Contractor is advised to pay particular attention to weather forecasts for the area. The Contractor shall make provisions for contingencies to deal with inclement weather, the cost of which shall be incidental to other pay items. The Contractor may have to demobilize from the site on a temporary basis due to weather. Prior to leaving the site, the Contractor shall take such steps as are necessary to protect completed work and work in progress and to remove all equipment and materials from potentially affected areas. The Contractor shall be responsible for any loss or damage to work completed, work in progress, equipment, or material. The Contractor shall remobilize to the site at no additional cost to the Owner. Remobilization shall include all effort required to restart the work. The Contractor shall supply a storm plan as required within the Supplementary Conditions.

The Contractor shall include the pre-construction survey and plans, the ongoing preparation of Record Plans that records their progress and changes at the project site for the AS-Built plans and for the post-construction survey and plans (incorporated into the As-Built).

The Contractor shall develop and submit a traffic control plan including signage reflective traffic control barriers with lights and a traffic plans layout to be submitted to the Town and to the Police department for approval. The Contractor shall deploy the construction fence along the limits to keep the public out of the work areas. Traffic control may allow for some parking on the street as long as it is secured behind the traffic controls.

The Contractor shall cut the existing bituminous concrete roadway sufficiently enough to remove the guardrail and posts and to complete the seawall.

The Contractor shall grade the roadway area opened and fill and compact with clean gravel and a 4" lift of bituminous concrete.

Perform site work operations and the removal and proper disposal of debris and waste materials to assure minimum interference with beach, streets, walks, parking facilities, buildings and all other adjacent facilities.

Comply fully with all requirements and conditions of all Project Permits including performance of any miscellaneous work required to ensure full compliance and not otherwise covered by individual items in the contract.

Excavation, filling, and compaction of granular materials, Grading, compaction and subgrade preparation for surface areas, Preparation of granular base for all walls and footings, Installation and compaction of

stone and granular material including within the tidal area, back filling and compaction of specified fill materials

Placing and maintaining the DEP sign for this project.

Demolition shall demolition, remove and properly dispose of the existing timber deck and stair, the existing concrete beach access stairs, the existing guardrails and guardrail post, cut the existing roadway, remove and dispose of 6 LF of existing stone wall near.

The Contractor shall remove all armor stone placed to secure the existing wall and place the stone in the staging areas with the other armor stone storage and as directed by the Town.

The Contractor shall excavation and backfill of test pits as show and specified on the Contract Drawings to determine the location of the bedrock outcropping for the length of the proposed wall. The Contractor shall take grab sample of excavated materials had have gradation tests performed.

RELATED ITEMS

ITEM 940.1	CAST-IN-PLACE REINFORCED CONCRETE SEAWALL
ITEM 940.2	CAST-IN-PLACE REINFORCED CONCRETE STAIRS
ITEM 975	HANDRAILS

SUBMITTALS

The contractor shall submit for approval the following, including items in the supplementary general conditions:

- Project schedule
- Written Sequence of Operations
- Schedule of the Equipment to be used in the performance of this Contract.
- Storm Plan
- Traffic Plan
- Pre-Construction Survey
- Post-Construction Survey and As-Built Plan
- Copies of agreement to access private property\ outside of the identified work area
- Representative photograph binders
- Project Photographs
- Grain size analysis report

MATERIALS

DEP sign, which is to be displayed at the site, shall be not less than 2 (two) square feet or more than 3 (three) square feet in size bearing the words:

"Massachusetts Department of Environmental Protection" [or, "MA DEP"]
"File Number SE35-1636"

Construction fence to be 4 (four) foot high orange safety fence by T C Mirafi or approved equal (chainlink may be used as an option) set and maintained throughout the project around staging areas.

Bituminous concrete shall be composed of mineral aggregate, mineral filler and bituminous material and shall conform in all respects to Class I Bituminous Concrete binder pavement Type I-1, as specified in

Sections 420, 460, 472, 701 and M3 of the Standard Specifications

Gravel Borrow shall conform to M1.03.0 in the "Standard Specifications for Highways and Bridges" shall consist of inert material that is hard, durable stone and coarse sand, free of organic material, loam, trash, snow ice, frozen soil and other objectionable material and shall be well-graded within the following limits: Maximum size of stone shall meet M1.03.0 Type b with 3 inches as the largest dimension.

Crushed stone shall conform to M2.01.0 in the "Standard Specifications for Highways and Bridges" shall consist of one or the other of the following material: Durable crushed rock consisting of the angular fragments obtained by breaking and crushing solid or shattered natural rock, and free from a detrimental quantity of thin, flat, elongated, or other objectionable pieces.

EXECUTION

Prior to construction, the Contractor shall obtain the services of a Licensed Land Surveyor to perform a preconstruction survey of the project area. The Contractor shall inform the Town Representative at least 48 hours prior to the surveyor being on-site. The survey shall establish temporary bench marks at the site to be used during construction. Preconstruction survey shall be provided as electronic drawing file in PDF and AutoCAD compatible format and 2 paper copies of the stamped plans at the same size and scale as the Contract Drawings. Drawings shall illustrate all utilities, site features, topography, beach profile, and any other notable features.

During the construction the Contractor shall maintain a record drawing of the project showing progress and changes as the project made. This drawing shall be updated weekly and reviewed with the Town Representative.

At the end of construction, the Contractor shall obtain the services of a Licensed Land Surveyor to perform as-built survey of the project. As-built survey shall be provided as stamped paper plans at the same size and scale as the Contract Drawings. Drawings shall illustrate all changes in work from contract drawings. As-built survey shall also be provided as electronic drawing file in PDF and AutoCAD compatible format. Changes in work from contract drawings, As-built survey shall also be provided as electronic drawing file in PDF and AutoCAD compatible format.

Traffic control shall be as approved by the Hull police department based on the traffic plan developed by the Contractor. At a minimum, during construction hours (7 AM to 7 PM) Atlantic Avenue will be reduced to one lane of traffic. During non-construction hours, Atlantic Avenue will be restored to two lanes of traffic. Pedestrian access to the sidewalk on the south side of Atlantic Avenue will always remain open through the duration of the project barriers will be installed between Atlantic Avenue and the construction site to provide a barrier between vehicular traffic and the beach.

The Contractor shall utilized jersey barriers of water-filled traffic barriers at the ends of the traffic control area to ensure a safe barrier between the passing vehicles and the work zone. The barriers shall be movable to ensure two (2) lanes of travel during off construction hours. During non-construction hours the traffic controls shall be moved to protect the project area from pedestrians and traffic.

The cutting of bituminous concrete roadway shall not be done until the Contractor is ready for the construction of the seawall. Existing roadway bituminous cutting shall be done in a manner to leave a clean edge to the pavement that will be used for the patch area. The areas of the opening shall be enough to remove the guardrail post and to construct the seawall; to be determined in the field with the Town Representative. All excavated bituminous shall be removed and properly disposed of site.

Guardrails shall not be removed until the Contractor is ready to construct the seawall. All components of the guardrails and their posts are to be removed and disposed of properly offsite. After the guardrail post are removed grade as necessary to prevent tripping hazards.

Demolition of the existing timber deck and stairs and the demolition of the existing concrete access stairs shall be performed once the contract is issued. All materials shall be removed and disposed of properly offsite. No discarded materials are to remain on the beach area, at any time.

Tests pits shall be excavated after the demolition of the timber deck and concrete stairs to ensure access for measurements of the masonry wall. Test pits are to determine the depth to bedrock and of a footing will be required for the new concrete wall. The determination of a footing shall be made in the field with the Town Representative, in consultation with the Project Engineer. At least two (2) grab samples of materials excavated for the test pits shall be taken and sent for gradation testing and grain size analysis. After the measuring from the test pits is completed, backfill and compact the beach materials.

Once the contractor is prepared to work on the wall that is protected by the armor stones that was placed during a prior emergency contract, the stones shall be removed and transported to the staging area. The armor stone shall be placed on top of the stone pile at the back of the staging area and as directed by the Town Representative.

Excess material shall be removed from the site and become the property of the Contractor, unless otherwise directed by the Owner. Excess imported material shall be measured and deducted from payment quantities under the appropriate items, as established by the Owner's Representative.

The Contractor shall remove all material left onsite by the previous contractor including but not limited to reinforcement steel, tools, and miscellaneous construction debris. This removed material becomes the property of the Contractor.

METHOD OF MEASUREMENT

Site Preparation shall be measured as a Lump Sum based on the Contractors submitted and approved schedule of values.

Demolition shall be measured as a Lump Sum based on the Contractors submitted and approved schedule of values.

BASIS OF PAYMENT

Payment for ITEM 101 SITE PREPARATION shall be by the Contract Price Lump Sum. This price and payment shall constitute full compensation for all mobilization, demobilization, labor, equipment, materials, testing, transportation, survey and supervision for the satisfactory supply and installation of all items under this section and shall include all work materials; preparation and maintenance of the site activities including materials for barriers all items specified in the Order of Conditions and/or other approvals and all safety barriers, traffic controls, signage, security requirements for the project site, preconstruction survey, as-built survey, grain size analysis, photographic documentation, storm plan, traffic plan, project scheduling and sequencing, and any other incidentals necessary to complete the work specified herein and as shown on the Contract Documents.

Payment for ITEM 107 DEMOLITION shall be by the Contract Price Lump Sum. This price and payment shall constitute full compensation for all mobilization, cutting, demobilization, labor, equipment, materials, disposal, fill, compaction, testing, transportation, survey and supervision for the satisfactory supply and installation of all items under this section and shall include all work materials.

PAYMENT ITEM

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>UNIT</u>
101	SITE PREPARATION	L.S.
107	DEMOLITION	L.S.

END OF SECTION

**ITEM 940.1 CAST-IN-PLACE REINFORCED CONCRETE SEAWALL
ITEM 940.2 CAST-IN-PLACE REINFORCED CONCRETE STAIRS**

DESCRIPTION

Provide all labor, materials, equipment, survey and supervision necessary to complete work of forming and placing reinforced concrete as a seawall encasement and as an access stairway to the beach as shown herein. The proposed wall shall encase an existing masonry roadway abutment wall and shall be doweled into the existing bedrock. Actual dimensions and a determination of the need for footing shall be determined through test pits under the demolition item.

This project is in conjunction with a major roadway rehabilitation project of Atlantic Avenue. All work must be completed before the roadway project reaches the project site. Some initial work for the roadway rehabilitation is being performed currently and may continue when this project is going. Coordination and cooperation with other contractors, the Town departments, and MassDOT is required for a successful completion of this project.

This project may be during times of cold weather; a cold weather plan shall be developed and submitted for approval. Any equipment that may need to run 24 hours a day to keep the concrete warm, or for any other reason, shall be quiet (silent) running, not to disturb the residents.

As otherwise shown on contract documents or needed to complete the work, forms and falsework for forms, hot dipped galvanized reinforcing steel, and associated accessories (Ties, Chairs, etc.) as required, epoxy adhesive for setting of anchor pins and/or dowels, cutting and patching, expansion and/or Control Joints, cleaning of the existing seawall, concrete bonding agent, weep drains, scupper drains and concrete sealer.

RELATED WORK UNDER OTHER SECTIONS

ITEM 101 SITE PREPARATION
ITEM 107 DEMOLITIONS
ITEM 975 HANDRAILS

REFERENCES

The Standard Specification shall govern; except as noted, work shall conform to the latest edition of the following code specifications and standards:

American Society for Testing and Materials (ASTM)
American Concrete Institute (ACI)
American National Standards Institute (ANSI)
Concrete Reinforcing Steel Institute (CRSI):
International Code Council – Evaluation Service (ICC-ES)

SUBMITTALS

Based on the field measurements made with the Town Representative during the test pits review, the Contractor shall submit reinforcing steel shop drawings of such detail and completeness that all fabrication and placement at the site can be accomplished without the use of Contract Drawings for reference. Bar reinforcement shop drawings shall include setting plans, elevations, bending diagrams, cutting lists and other information so as to completely define and establish the location, spacing, size, length, bending, shape, splicing and keying at construction joints and all other pertinent information as required. Drawings shall show grades of reinforcing steel. Opposite hand reinforcing shall be detailed separately. Wall reinforcing shall be detailed on wall elevations. Type, size and location of all accessories required for proper assembling, placing and support of the reinforcement shall be shown.

All openings, depressions, expansion, construction and control joints, trenches, sleeves, inserts and all other project requirements affecting reinforcing details and placing shall be shown as well.

Contractor shall check structural, and site drawings for anchor bolts, anchors, inserts, conduits, sleeves, and any other items which are required to be embedded in concrete and shall make necessary provisions as required so that reinforcing steel will not interfere with the placement of such embedded items.

All formwork design for cast-in-place concrete shall be stamped by a Massachusetts Licensed Engineer.

Cold Weather Concrete Plan shall be developed indicating all means and methods of keeping the concrete at least 60°F for seven (7) days after placement.

Concrete Mixture Design. At least 30 days prior to concrete placement, submit proportions for the concrete mixture that meets the properties specified and is suitable for the job conditions.

Concrete Aggregate. Submit test results for aggregate quality in accordance with ASTM C33, and the combined gradation curve for grading proposed for use in the work and used in the mixture qualification. Provide test results for potential for alkali-silica reaction in accordance with ASTM C227 or ASTM C1260.

Concrete Placement. Submit a description of proposed placement procedures and technical literature for equipment and methods proposed for use in placing concrete. Include pumping or conveying equipment including type, size, and materials for pipe, valve characteristics, and the maximum length and height concrete will be pumped. No adjustments shall be made to the mix design to facilitate pumping or placement without the acceptance of the Town. Submit technical literature for equipment and methods proposed for vibrating and compacting concrete.

Develop and submit concrete volume calculations for each proposed panel of concrete with each panel identified. It is recommended that this is done in cooperation with the Town's representative after the measuring of the conditions during the test pits examination..

An independent sampling and testing agency shall be provided by the Contractor. Submit qualifications of proposed concrete testing agency and technicians.

ACI Concrete Field Testing Technician Grade I qualified in accordance with ACI SP-2.

Laboratory Testing Technicians. All Concrete Strength Testing Technician and Laboratory Testing Technician, Grade I or II qualified in accordance with ACI SP-2.

Submit batch tickets for each load of concrete delivered to the project site. The Town's Representative shall sign the original slip. The Contractor shall submit daily the batch slips countersigned by the Town's Representative.

Submit results for field tests completed on fresh concrete and compressive strength tests completed on hardened concrete.

MATERIALS

CONCRETE MATERIALS:

Portland Cement shall be ASTM C 150, Type II or V of U.S. manufacture low alkali with tri-calcium aluminates (C3A) content less than 10 percent and a maximum cement-alkali content of 0.8 percent Na₂O_e (sodium oxide) equivalent. Use one brand of cement throughout project

AGGREGATES:

Fine aggregate. ASTM C33, clean and graded from 1/4 inch to fines. Provide aggregate from a single source with documented record data of satisfactory service in similar applications and service conditions using similar aggregates and cementitious materials. Fine aggregates shall consist of sand having acceptable gradation or particle sizes, and consisting of clean, hard, strong, durable and impermeable particles resistant to wear and frost, inert to cement and water, reasonably free from structurally weak grains, organic matter, loam, clay, silt, salts, mica or other fine materials that may affect bonding of the cement paste. The particles shall be free from alkali and other surface coatings. Fine aggregates shall have a fineness modulus of 2.80 (+0.20), and shall be graded within the limits prescribed in ASTM C33

Coarse aggregate. ASTM C33, clean and graded from 3/4 inch to maximum sizes hereinafter specified. Coarse aggregates shall consist of crushed rock composed essentially of clean, hard, strong, durable and impermeable particles resistant to wear and frost, inert to cement and water, and free from deleterious amounts of organic matter, loam, clay, salts, mica, and soft, thin, elongated, laminated or disintegrated stone. Select aggregate which is considered not susceptible to Alkali-Silica Reactivity (ASR) when tested in accordance with ASTM C295. Coarse aggregates shall be washed and screened, or both if necessary, to remove fine materials and deleterious substances adhering to the aggregate. A deleterious amount of thin and elongated stones shall be considered any amount in excess of 15% of the total mass. Thin stones shall be considered to be such stone whose average width exceeds four times their average thickness. Elongated stones shall be considered to be such stone whose average length exceeds four times their average width.

Water shall be potable, clear and free from oil, acid, alkali, organic matter, silt, detergents, or other deleterious substances. The amount of water, including surface or free moisture in the aggregates, shall be measured and controlled so that the water-cement ratio of each mix shall be accurately obtained.

ADMIXTURES:

Admixtures allowed include the use water-reducing admixture or high range water reducing admixture (super plasticizer) in all concrete in strict accordance with the manufacturer's printed instructions; use non-chloride accelerating admixture in concrete placed at ambient temperatures below 50° F in strict accordance with the manufacturer's printed instructions.

Air-Entraining Admixture. ASTM C260, certified by manufacturer to be compatible with other required admixtures. Subject to compliance with requirements, products which may be incorporated in the work include, but are not limited to, the following: "Darex AEA" or "Daravair"; Grace Construction Products; "Air-Mix"; Euclid Chemical Co.; "Sika Aer"; Sika Corp.; "MB-VR or MB-AE"; Master Builders. Or equal.

Water Reducing Admixture. ASTM C494, Type A, and containing not more than 0.1% chloride ions. Subject to compliance with requirements, products which may be incorporated in the work include, but are not limited to, the following: "Daratard-17"; Grace Construction Products.; "Eucon WR-75"; Euclid Chemical Co.; "Pozzolith 100XR", Master Builders.; "Plastiment", Sika Chemical Corp. ; Or equal

High-Range Water Reducing Admixture (Super Plasticizer). ASTM C494, Type F or Type G and containing not more than 0.05% chloride ions. Subject to compliance with requirements, products which may be incorporated in the work include, but are not limited to, the following: "ADVA" or "Daracem"; Grace Construction Products; "PSP"; Protex Industries Inc.; "Super P"; Anti-Hydro; "Sikament"; Sika Chemical Corp.; "Rheobuild"; Master Builders; Or equal.

Water Reducing, Non-Chloride Accelerator Admixture. ASTM C494, Type E or C, and containing not

more than 0.1% chloride ions. : Subject to compliance with requirements, provide one of the following: "Accelguard 80"; Euclid Chemical Co.; "Pozzutec 20"; Master Builders, Inc.; "PolarSet"; Grace Construction Products; Or equal.

Water Reducing, Retarding Admixture. ASTM C494 Type D, and containing not more than 0.1% chloride ions. Subject to compliance with requirements, products which may be incorporated in the work include, but are not limited to, the following: "Edoco 20006"; Edoco Technical Products; "Pozzolith Retarder"; Master Builders; "Eucon Retarder 75"; Euclid Chemical Co.; "Daratard"; W. R. Grace; "Plastiment"; Sika Chemical Co.; Or equal.

Shrinkage-Reducing Agent: Confirming to ASTM C494 requirements for Type S, Specific Performance, Admixtures. Admixture shall be non-expansive and able to reduce shrinkage by a minimum of 40%. Shrinkage reducing agent shall be used in all concrete mixes.

Microsilica Admixture: Packaged in easily dispersing form.

Prohibited Admixtures: **Calcium chloride shall not be used.**

Class	Compressive Strength at 28 days	Maximum Size of Aggregate	Max Water of Cement Ratio	Minimum Cementious Material Content	Maximum Cement Replacement
A	5000 psi -10%/+25%	3/4"	0.40	660 lbs/CY	Max fly ash 15% Max slag 25%

Air-Entrainment: The air content in all concrete shall be maintained at 7 percent +/- 2.0 percent.

Slump. Between 2 inches and 4 inches or as approved otherwise. Concrete with a high range water reducer shall have a maximum slump of 8 inches in accordance with ASTM C143 or as approved otherwise.

After the concrete has cured for a minimum of 28 days, a silane based sealant shall be applied to all accessible faces of the concrete surface. The concrete sealer shall conform to MassHighway Specification M9.15.0.

REINFORCING BARS:

The reinforcing bars shall be new, galvanized, deformed billet steel bars, conforming to ASTM A 615 Grade 60. Galvanizing shall be by the hot dip method according to ASTM Specifications A-767 Class I.

Accessories: Reinforcement accessories, consisting of spacers, chairs, ties, and similar items shall be provided as required for spacing, assembling, and supporting reinforcement in place. All accessories shall be dielectric coated steel or approved plastic accessories, conforming to the applicable requirements of the CRSI Standards hereinbefore specified.

Tie wire for reinforcement shall be 16 gauge or heavier dielectric coated steel or approved plastic accessories, conforming to the applicable requirements of ASTM A-82.

Form Ties and Spreaders: Standard metal form clamp assemblies and plastic cone, of type acting as spreaders and leaving no metal within 1 inch of concrete face. Inner tie rod shall be left in concrete when

forms are removed. No wire ties or wood spreaders will be permitted. Use 1/2" x 1" C.T. plastic cones for sinkages.

FORM MATERIALS:

Forms. Plywood, lumber, metal, or other acceptable material. Provide lumber dressed on at least 2 (two) edges and one side for tight fit.

Form Coatings: Non-grain raising and non-staining type that will not leave residual matter on surface of concrete or adversely affect proper bonding of subsequent application of other material applied to concrete surface, "Nox-Crete Form Coating" as manufactured by Nox-Crete Company, "Elite 2 Form Release" as manufactured by EMI, MasterFinish RL 211 as manufactured by BASF Group, or approved equal. Coating containing mineral oils or the nondrying ingredients will not be permitted.

Form Ties. For concrete structures which will not be in view or buried below finish grade, use carbon steel factory-fabricated, removable or stay in place snap off type form ties, designed to prevent form deflection and to prevent spalling concrete upon removal. Provide units which will leave no metal closer than 1-1/2 inches to surface. Provide ties which, when removed, will leave holes not larger than 1 inch diameter in concrete surface. Patch all holes with non-shrink grout.

Form ties and spreaders for walls in areas exposed to view shall be B1 Heavy Duty Stainless Steel Two Strut Coil Tie or B3 Screw on Coil Tie with B30 Screw on Plastic Cones for 1/2 inch bolt diameter, 1-1/2 inch setback and 1-1/4 inch diameter to 1 inch diameter taper by Dayton Richmond or approved substitute. Plastic cone holes shall be filled with non-shrink grout. Strut coil ties shall be sized to satisfy loading requirements.

In lieu of carbon steel form ties specified above, fiberglass form ties as manufactured by RJD Industries, Dayton Richmond or approved substitute may be used. Fiberglass form ties shall be standard gray color. The concrete structure shall be finished by grinding the fiberglass form tie flush with the finish surface of the concrete structure.

RELATED MATERIALS:

Non-shrink, Non-metallic Grout. Provide non-metallic cement based grout requiring only addition of water, with minimum 28-day compressive strength of 8,000 psi, with shrinkage compensation characteristics in both the plastic and hardened states, conforming to ASTM C1107, "Grade C". Manufactured by: Five Star Grout 100 by Five Star Products Inc., SikaGrout 212 as manufactured by Sika Corporation, or Masterflow 928 by Master Builders, Inc. or approved substitute.

Moisture-Retaining Cover. Provide HydraCure reusable, reflective wet cure blankets as manufactured by PNA Construction Technologies. Wet cure blankets shall be comprised of a non-woven polypropylene fabric coated with a white-pigmented polyethylene, total thickness 42 millimeters.

Liquid Membrane-Forming Curing Compound. Liquid type membrane-forming curing compound complying with ASTM C309, Type I, Class A. Moisture loss not more than 0.039 grams per square centimeter. Maximum at 72 hours when applied at 200 square feet per gallon. Subject to compliance with requirements, products which may be incorporated in the work include, but are not limited to, the following: "Masterseal"; Master Builders; "A-H 3 Way Sealer"; Anti-Hydro Waterproofing Co.; "Ecocure"; Euclid Chemical Co.; "Clear Seal"; A. C. Horn, Inc.; "Sealco 309"; Gifford-Hill/American Admixtures; "J-20 Acrylic Cure"; Dayton Superior.

Bonding Compound. Bonding agent shall be a 3-component, water based epoxy resin that contains corrosion inhibitors. Product shall be SikaTOP Armatec-110 EpoCem or approved equal.

Evaporation Retarder shall be "Eucobar" by The Euclid Chemical Company or "Confilm" by Master Builders or approved equivalent product.

Curing compound shall be a water-based dissipating resin based emulsion for use on freshly finished vertical or horizontal concrete surfaces. Curing compound shall be Harris Emulsion Konkure Clear, W.R. Meadows 1150-Clear, Euclid Chemical Kurez DR-100, or approved equal.

Compressible Filler Materials: All open joints between abutting concrete surfaces not indicated to receive surface sealant shall be filled with asphaltic based self-sealing and flexible expansion joint material complying with ASTM D994. Joints between abutting concrete surfaces indicated to receive surface sealant materials shall be filled with resilient, non-extruding cellular fiber expansion joint materials, uniformly saturated with asphalt, offering 70% recovery after compression and complying with ASTM D1751.

Joint Sealant. Joint sealants shall be self-leveling, single component polyurethane sealant conforming to ASTM C-920, Type S, Grade P, Class 25, Use T, M, A, G, and I. Sealant shall have a minimum tensile strength of 150 psi, movement capacity of 25%, and an elongation at break of 320%. All joints shall have backer rod installed per the manufacturers recommendation.

Epoxy Anchors: Epoxy shall be HILTI RE500 V3 or approved equal.

3" PVC Schedule 80 pipe shall be used for the weep holes and scupper holes.

QUALITY CONTROL TESTING DURING CONSTRUCTION

Test Specimens: The Contractor will be required to make, cure and have tested, a minimum of one set of five test specimens from the concrete of each day's pour and for each fifty cubic yards of concrete cast in accordance with ASTM Designations C172, C31 and C39. One cylinder shall be broken after seven days, one cylinder shall be broken after fourteen days, and two cylinders after twenty-eight days. The fifth cylinder shall be stored on the site to the same conditions of the ongoing work as reserve to break if and when the placed concrete does not achieve the required strength at 28 days.

The Contractor shall provide curing boxes of sufficient size and quantity to store concrete specimens required for testing of concrete. Concrete curing boxes will be capable of maintaining a constant temperature (60 to 80 degrees Fahrenheit) as specified by ASTM C31 Section 9.2.1.1. The Contractor is responsible for maintaining the curing boxes, making electrical service connections to the curing box, and supplying electricity for heat when placing concrete in cold weather conditions and ice when placing concrete under hot weather conditions to maintain the temperature requirements specified.

Relocate curing boxes as necessary to be within 100 feet of concrete placement.

Slump: A slump test shall be made for each truckload of concrete in accordance with ASTM Designation C143. Slumps greater than design mix limit will be grounds for rejection of the concrete.

Air Content: The Contractor shall make an air content test from each day's pour of concrete by the pressure method in accordance with ASTM Designation C231. Air contents above or below the limits specified will be grounds for rejection of the concrete.

Testing: All personnel and laboratories testing concrete shall be licensed by the Commonwealth of Massachusetts.

Evaluation and Acceptance of Concrete Tests:

Acceptance of Concrete. The strength of the concrete will be considered satisfactory provided the averages of all sets of three consecutive strength test results equal or exceed the specified design compressive strength, and no individual strength test result falls below the specified design compressive strength by more than 500 psi. The specified design compressive strength shall be at 28 days. A "test" is defined as 2 cylinders evaluated for compressive strength at 7 days and at 28 days of curing.

The laboratory will establish the statistical evaluation of strength test results in accordance with ACI 214. The Contractor shall be fully acquainted with all provisions relative to ACI 214 and fully comply with the applicable requirements of Section 5.3 of ACI 318.

Test Failures: In the event the compressive strength of the cylinders, when tested, is below the specified minimum, the Town may require test cores of the hardened structure to be taken by the Testing Laboratory in accordance with ASTM C-42. If such test indicates that the core specimen is below the required strength, the concrete in question shall be removed and replaced without cost to the Town. Any other work damaged as a result of this concrete removal shall be replaced with new materials to the satisfaction of the Town at no additional cost to the Town. The cost of coring will be deducted from the Contract amount. Where core cylinders have been taken by the Testing Laboratory and the concrete proves to be satisfactory, core holes shall be filled in a manner satisfactory to the Town at no additional cost to the Town. Fill core holes in accordance with the requirements for repair of surface defects.

Field Testing of post-installed adhesive dowels shall be determined by an independent testing laboratory in accordance with ICC-ES AC308. Testing shall be witnessed by the Town's Representative. Test of post-installed dowels is mandatory.

Post-installed adhesive dowels shall be tested by the direct tension method. If the tension load is applied by jacking against the concrete, bedrock or masonry, the jacking pressure is to be distributed outside of an area having its center at the post-installed dowel and its diameter, or least dimension, equal to the required dowel spacing as given in the ICC ES report. The contractor shall take care not to damage the existing wall during testing. Any damage to the existing wall shall be repaired by The Contractor.

Testing shall be in accordance with ICC-ES AC308. Tension test (proof) load shall be equal to 80-percent of the specified nominal yield strength of the reinforcement times the tensile area of the bar. A total of ten (10) dowels shall be tension-tested, the Town's Representative shall identify the selected dowels, selection will be mixed top, lower, bottom and mid-levels.

Acceptance Criteria: A post-installed dowel is acceptable if the test load specified herein is attained without: slippage of more than either 1/16-inch or 2.5-percent of the embedded length; reinforcing bar failure; and any sign of damage in the surrounding concrete.

The epoxy adhesive, drilled hole diameter, and embedment depth shall be field tested, as specified below, prior to approval for use on this project.

Four (4) test dowel bars shall be installed in the existing concrete, masonry, and bedrock and tested by the Contractor for pullout. The pullout force shall correspond to 90% of the yield strength of the bar. If any of the tested bars pull out or if the surrounding concrete shows signs of cracking, the Contractor must adjust the hole diameter, embedment length, and/or grouting material to meet this test requirement.

All testing of the drilled and grouted dowels shall be performed by the Contractor and is incidental to the work under this item. The method of applying the tension test load to the dowels shall conform to ASTM E488. The details of the testing equipment used and the locations and details of the test dowels, shall be submitted to the Town's Representative for approval. The Contractor shall perform this test as soon as possible in order to eliminate delays in construction due to the approval process. Dowels shall not be ordered until the embedment lengths have been approved by the Town's Representative

PRODUCT DELIVERY, STORAGE AND HANDLING

Reinforcing steel shall be transported to the site, stored, and covered in a manner which will ensure that no damage shall occur to it from moisture, dirt, grease, or any other cause that might impair bond to concrete. All approved reinforcing steel shall be stored on the site to ensure that there will be no delay of the work. Identification of steel shall be maintained after bundles are broken.

EXECUTION

CAST-IN-PLACE CONCRETE

All concrete shall be ready-mixed concrete, and shall be mixed and delivered in accordance with the "Specification for Ready-Mixed Concrete", ASTM C-94. The batch plant of the concrete producer shall be certified for compliance with the standards established by the National Ready-Mixed Concrete Association.

In the event concrete is mixed at a central batching plant, the delivery shall be arranged so that intervals between batches are kept to a minimum, and in any event not more than thirty (30) minutes. Trucks shall be in first class condition and kept in constant rotation during delivery.

Concrete shall be placed within 90 minutes after cement has been mixed with aggregate or 45 minutes after addition of water and admixtures.

Truck delivery slips of all concrete delivered to the job shall indicate the quantity and quality of concrete, additives, date and time of batching and delivery, and the location of placement. Delivery slips shall be countersigned by the Town Representative upon placement to forms, a copy of the countersigned slips shall be forwarded to the Town' Representative at the end of each week.

Existing seawall and bedrock shall be pressure washed and any loose materials or deteriorated rock shall be removed prior to installation of formwork. Any additional preparation of the existing seawall shall be per the bonding agent manufacturers recommendations.

BONDING AGENT:

All existing stone / concrete / masonry surfaces shall be sprayed with a bonding agent prior to installation of concrete. Existing surface shall be prepared and the bonding agent shall be applied per the bonding agent manufacturer's recommendations.

FALSEWORK FOR FORMS:

The Contractor shall build and maintain necessary falsework for the forms.

FORMS:

Design, erect, support, brace, and maintain framework to support vertical and lateral, static, and dynamic loads that might be applied until such loads can be supported by concrete structure. Construct formwork so concrete structures are of correct size, shape, alignment, elevation, position and dimensions of the concrete called for on the Drawings. Maintain formwork construction tolerances complying with ACI 347.

Design formwork to be readily removable without impact, shock, or damage to cast-in-place concrete surfaces and adjacent materials.

Construct forms to sizes, shapes, lines, and dimensions shown, and to obtain accurate alignment, location, grades, level and plumb work in finished structures. Solidly butt joints and provide back-up at joints to prevent leakage of cement paste.

Fabricate forms for easy removal without hammering or prying against concrete surfaces.

Cleaning and Tightening: Thoroughly clean forms and adjacent surfaces to receive concrete. Remove chips, wood, sawdust, dirt or other debris just before concrete is placed. Retightening forms and bracing after concrete placement is required to eliminate mortar leaks and maintain proper alignment.

Form ties and spreaders shall be of such type as to leave no metal closer than 1 inch from the exposed concrete surfaces. Tie rod holes shall be plugged solid with mortar of same color and texture as the concrete. Cutting ties back from the surface will not be permitted.

Shoring posts or uprights shall not be removed until the supporting member has acquired sufficient strength to safely support its own weight and all loads upon it. Members subjected to additional loads during construction shall be adequately shored and braced. The Contractor shall assume full responsibility for any damage to the structure due to premature removal of forms.

PLACING REINFORCEMENT

Reinforcing steel shall be placed in accordance with the drawings and approved shop drawings and the applicable requirements of the "Codes and Standards" herein before specified. Install reinforcement accurately and secured against movement, particularly under the weight of workmen and the placement of concrete.

Reinforcing Steel Supports: Bars shall be supported on approved plastic or dielectric-coated metal chairs or spacers, accurately placed and securely fastened to forms or steel reinforcement in place. Additional bars shall be supplied, whether specifically shown on the drawings or not, where necessary to securely fasten reinforcement in place. Support legs of accessories in forms without embedding in form surface. Spacing of chairs and accessories shall conform with CRSI's "Recommended Practice for Placing Bar Support". Hooping and stirrups shall be accurately spaced and wired to the reinforcement. No wood will be permitted inside forms. Lifting of welded wire fabric into proper position while concrete is being poured rather than supporting fabric on chairs will not be permitted.

Placing and Tying: All reinforcement shall be set in place, spaced, and rigidly and securely tied or wired with tie wire at all splices and at all crossing points and intersections in the positions shown, or as directed. Rebending of bars on the job to accommodate existing conditions will not be permitted without the written approval of the Town. Point ends of wire ties away from forms. Miscellaneous wire tie shall be removed from the forms prior to placement of concrete.

Spacing: Minimum center to center distance between parallel bars shall be in accordance with the details on the drawings, or, where not shown, the clear spacing shall be 2 times the bar diameter, but in no case less than 1-1/2 inches or less than 1-1/2 times the maximum size aggregate.

Splices shall be in accordance with the following: Maximum 50% of steel spliced occurring within lap length. Top bars shall be 1.4 times values given in 3.D.5.c.

Splice lengths:

#6 bars and smaller	30 bar diameter
#7	36 bar diameter
#8	40 bar diameter

Place reinforcement to obtain at least minimum coverage 3" for concrete protection. Arrange, space, and securely tie bars and bar supports to hold reinforcement in position during concrete placement operations. Set wire ties so ends are directed into concrete, not toward exposed concrete surfaces.

JOINTS

Construction Joints: Construction joints shall be located a maximum of 20 feet apart. If, for any reason, the Contractor feels a change is necessary, he shall prepare a placing plan and submit it to the Town for approval. Where a joint is to be made, the surface of the concrete shall be sandblasted or thoroughly picked, thoroughly cleaned, and all laitance removed. In addition to the foregoing, joints shall be thoroughly wetted, but not saturated, and slushed with a coat of grout immediately before the placing of new concrete. Approved keys shall be used at all joints, unless detailed otherwise. Forms shall be retightened before placing of concrete is continued. There shall be an interval of at least 48 hours between adjacent pours.

Expansion Joints: Expansion joints shall be located at a maximum spacing of 40 feet or as otherwise shown on Contract Drawings. The joint shall include a joint filler, a bond breaker and joint sealant and installed as indicated on Contract Drawings.

INSTALLATION OF EMBEDDED ITEMS

Provisions shall be made for pipes, sleeves, anchors, inserts, reglets, anchor slots, nailers, waterstops, and other features. No wood other than necessary nailing blocks shall be embedded in concrete. Complete cooperation shall be extended to suppliers of embedded items in their installation. Secure information for embedded items from other trades as required. All embedded items shall be securely anchored in correct location and alignment prior to placing concrete.

DRILLING AND GROUTING DOWELS:

Minimum dowel embedment shall be as shown on the contract drawings. Dowels shall be installed in accordance with the ICC-ES reports and manufacturer's installation instructions. In areas where concrete has been removed, the minimum dowel embedment shall be measured from the surface of sound concrete.

Dowels shall be installed perpendicular to the concrete surface within a ± 5 degree tolerance. Bending and welding of post-installed dowels is not permitted. No cutting of reinforcement will be permitted without prior approval from the Town's Representative.

The drilling operation shall be performed without damage to any existing surfaces or portion of the structure that is to remain in place. Any damage to any existing portion of the structure that is to remain in place shall be repaired to a condition equal to or better than that existing prior to the beginning of the Contractor's operations and shall be repaired at no additional cost to the Town.

The Contractor shall strictly follow the recommendations of the manufacturer for mixing and placing the grout material prior to the placement of the dowels. Any excess grout around the hole after placement of the dowel shall be struck off smooth while the grout is still fresh

Store dowels and adhesive in accordance with manufacturer's recommendations. Adhesive dowels shall not be installed if substrate temperature is below 40-degrees Fahrenheit unless tested per ICC-ES AC308 for lower installation temperature.

All dowels shall be visually inspected in order to verify and document that they have been installed as specified herein. As a minimum, inspection for post-installed dowels shall comply with the special inspection section of the applicable ICC-ES report (with the exception of validating the strength of existing concrete) plus additional requirements imposed by this Specification. These requirements of inspection shall be identified in the inspection report documentation.

If visual inspection reveals that the installed dowel does not meet the specified requirements, the dowel shall be relocated as permitted by this Specification, or shall be removed and replaced by another dowel, or referred to the Town's Representative for evaluation.

EPOXY ANCHORS:

The minimum edge distance and minimum spacing for anchors shall be per the manufacturer's recommendations. All holes shall be drilled to the recommended diameter per the manufacturer's requirements using carbide drill bits meeting ANSI B212.5-1994. Holes shall be brushed and blown clean a minimum of 3 times with a nylon brush and oil free compressed air. All holes shall be free of standing water before installing anchors.

OPENINGS FOR ITEMS PASSING THROUGH CONCRETE:

Contractor shall establish exact locations, sizes, and other conditions required for openings and attachment of work specified under other sections. Contractor shall be held responsible for proper coordination of all work of this nature in order that there will be no unnecessary cutting and patching of concrete. Any cutting and repairing to concrete required as a result of failure to provide for such openings shall be paid for by the Contractor at no additional expense to the Town.

PREPARATION OF FORM SURFACES;

Form Preparation: Before placing concrete, forms shall be thoroughly inspected. All chips, dirt, etc., shall be removed, all temporary bracing and cleats taken out, all openings for pipes, etc., properly boxed, all forms properly secured in their correct position and made tight, all reinforcement, anchors, and embedded items secured in their proper places. Concrete which may be on the forms or reinforcement, and which is set and dry, shall be cleaned off, and the forms and steel washed off before proceeding. Remove all foreign matter from forms and excavations.

Coat contact surfaces of forms with a form-coating compound before reinforcement is placed. Thin form-coating compounds only with thinning agent of type, amount, and under conditions of form-coating compound manufacturer's directions. Do not allow excess form-coating material to accumulate in forms or to come into contact with in-place concrete surfaces against which fresh concrete will be placed. Apply in compliance with manufacturer's instructions.

Coat steel forms with a non-staining, rust-preventative form oil or otherwise protect against rusting. Rust-stained steel formwork is not acceptable.

Prior to the final setting of the forms, measure all dimensions that are required to calculate the volume of the in-place volume with the Town Representative. The volumes shall be calculated separately and then compared to ensure the proper volume is ordered and placed.

Excess Water: Water shall be removed from place of deposit before concrete is placed unless otherwise permitted by the Town. Any flow of water into an excavation shall be diverted through proper side drains

into a sump, or shall be removed by other approved methods which will avoid washing away the freshly deposited concrete.

Soil: Soil on which concrete will be poured shall be thoroughly wetted (except in freezing weather).

Anchors and Embedded Items: Anchors, bolts, sleeves, inserts, wood blocking, and any other items to be embedded in concrete shall be accurately secured in position before the concrete is placed. Aluminum shall not be embedded in concrete.

CONCRETE PLACEMENT:

Before any concrete is placed, the Contractor shall notify all whose work is in any way connected with or influenced by the concrete work and give them reasonable time to complete all portions of their work that must be completed before concrete is deposited.

Immediately before concrete is placed, the Contractor shall inspect all forms to be sure that they are in proper position, sufficiently rigid, thoroughly clean, properly oiled and free from foreign materials, and that all reinforcement is in proper position.

Concreting, once started, shall be carried on as a continuous operation until the section of approved size and shape is completed.

Concrete shall be conveyed as rapidly as practicable from the mixer to the place of final deposit by methods, which prevent the separation or loss of ingredients. It shall be deposited, as nearly as practicable, in its final position to avoid rehandling or flowing. Concrete shall be placed so that a uniform appearance of surfaces will be obtained, and shall be placed and consolidated free of rock pockets, honeycombs, and voids.

Deposit concrete continuously or in layers of such thickness that no concrete will be placed on concrete which has hardened sufficiently to cause the formation of seams or planes of weakness. If a section cannot be placed continuously, provide construction joints as herein specified. Deposit concrete as nearly as practicable to its final location to avoid segregation.

Dropping the concrete a distance of more than four feet, depositing a large quantity at one point, or dropping concrete through a cage of reinforcing steel will not be permitted.

Exposed corners shall have a 1 inch chamfer, unless noted otherwise.

Pumping:

Concrete may be placed by pumping if first approved in writing by the Town for the location proposed. Equipment for pumping shall be of such size and design as to ensure a practically continuous flow of concrete at the delivery end without separation of materials. The concrete mix shall be designed to the same requirements as herein before specified, and may be richer in lubricating components in order to allow proper pumping. Concrete shall not be pumped through aluminum pipes.

All pumping operations must have full-time inspection by a recognized testing laboratory approved by the Town and paid for by the Contractor. The cost of this full-time inspection shall be included in the Contractor's bid proposal if the option of pumping is elected.

Vibrating and Compacting:

All concrete shall be thoroughly consolidated and compacted by suitable means during the operation of placing, and shall be thoroughly worked around reinforcement, embedded items, and into the corners of

the forms. All concrete against forms shall be thoroughly spaded. Internal vibrators shall be used under experienced supervision, and shall be kept out of contact with reinforcement and wood forms. Vibrators shall not be used in a manner that forces mortar between individual form members.

Vibrators shall be flexible electric type or approved compressed air type, adequately powered and capable of transmitting to the concrete not less than seven thousand (7,000) impulses per minute. Vibration shall be sufficiently intense to cause the concrete to flow or settle readily into place without separation of the ingredients. A sufficient number of vibrators shall be employed so that complete compaction is secured throughout the entire volume of each layer of concrete. At least one (1) vibrator shall be kept in readiness as a spare for emergency use. Vibrators shall be such that the concrete becomes uniformly plastic with their use.

Vibration shall be close to the forms but shall not be continued at one spot to the extent that large areas of grout are formed or the heavier aggregates are caused to settle. Care shall be taken not to disturb concrete which has its initial set.

Do not use vibrators to transport concrete inside forms. Insert and withdraw vibrators vertically at uniformly spaced locations not farther than visible effectiveness of machine. Place vibrators to rapidly penetrate placed layer and at least 6 inches into preceding layer. Do not insert vibrators into lower layers of concrete that have begun to set. At each insertion limit duration of vibration to time necessary to consolidate concrete and complete embedment of reinforcement and other embedded items without causing segregation of mix.

Where conditions make compacting difficult, or where the reinforcement is congested, batches of mortar containing the same proportions of cement to sand as used in the concrete shall first be deposited in the forms, to a depth of at least on inch.

The responsibility for providing fully filled out, smooth, clean, and properly aligned surfaces free from objectionable pockets shall rest entirely with the Contractor.

Patching: Immediately after stripping forms, inspect the concrete for deficiencies. Towns representative shall be notified of any defective work prior to completing repairs, patch minor defects, form-tie holes, honeycombed areas, etc., before concrete is thoroughly dry. Repair gravel pockets by cutting out to solid surface, form key, and thoroughly wet before placing patching mortar consisting of 1 part cement to 2 parts fine sand; compact into place and neatly finish. Honeycombed areas or gravel pockets which, in the Town's opinion are too large and unsatisfactory for mortar patching as described above, shall be cut out to solid surface, keyed, and packed solids with matching concrete to produce firm bond and surface.

The Contractor shall do the entire cutting as required by himself or other trades. All such work shall be of the minimum size required. No excessive cutting will be permitted, nor shall any structural members or reinforcement be cut.

The Contractor shall do all patching after work by other trades has been installed, where required, using Portland Cement Mortar 1:2 mix.

COLD WEATHER REQUIREMENTS:

Concrete shall not be mixed or placed when the temperature is below 40 degrees F., or when conditions indicate that the temperature will fall below 40 degrees F within 72 hours unless precautions are taken to protect the concrete.

Concrete temperature shall be maintained, when deposited, at not less than 60 degrees F. Contractor shall monitor and record daily minimum and maximum concrete surface temperatures. Temperature data shall be submitted to the Town Representative for review on a weekly basis. Reinforcement, forms and ground which concrete will contact must be completely free of frost.

Concrete and formwork must be kept at a temperature of not less than 60 degrees F. for not less than 96 hours after placing.

Comply with ACI 306 in cold weather.

The use of calcium chloride in any form is not permitted. Non-chloride accelerator shall be used when ambient temperature is below 50 degrees Fahrenheit.

Admixture manufacturer shall provide technical assistance at no additional cost. A manufacturer's representative shall be available for consultation by phone or on site upon 72 hour notice.

Placement of concrete on frozen ground will not be permitted.

Heating of concrete shall be performed in such a way to not dry out the poured concrete in any way.

Keep the newly placed concrete and all formwork at least 60 degrees Fahrenheit for at least seven (7) full days after placing concrete.

Wearing Surface Finish:

The wear surface shall receive a monolithic steel trowel finish. Surfaces shall be finished with a screed, float, or steel trowel. Trowel shall be vigorously used at an angle under pressure by the finisher until troweling gives evidence of shine or gloss as required to make a smooth, hard, dense, impervious surface, free of defects. Finishers shall work from kneeboards laid flat upon the surface. Mechanical troweling machines may be used if the desired finish and level tolerances can be obtained by their use, but finishing shall be by hand troweling.

All wearing surfaces shall be coated with a MassDOT approved Concrete Sealant sufficient to seal any and all cracking within all concrete wear surfaces. Sealant shall be able to withstand a marine environment.

Exposed Surfaces:

Surfaces exposed to view shall be finished. Within 48 hours after the forms have been removed and form ties cut back from the face of the concrete, all voids and cavities shall be filled with a stiff mortar of the same composition and air-entrainment as the mortar in the original concrete mix. The same brand and color of cement, and the same kind and color of aggregate as was used in the original concrete mix shall be used in this mortar. The mortar for filling shall have been mixed and let set for 30 minutes and then remixed before placing in the work. The surface film of all such pointed surfaces shall be carefully removed before setting of the mortar occurs.

If the Town determines these surfaces as prepared do not present a uniformly smooth, clean surface of even texture and appearance, the surface shall be treated and rubbed to obtain a satisfactory finish. The Town shall be the sole judge of the amount of rubbing which will be required.

If rubbing is required, the rubbing will start within 48 hours of notification that the rubbing is required, the surface should be wetted with clean water and rubbed with a No. 16 carborundum brick or other abrasive of equal quality until even and smooth and of uniform appearance, without applying any cement or other coating. If additional finishing is necessary it shall be obtained by a thorough rubbing with a No. 10 carborundum brick or other abrasive of equal quality. Subject to approval by the Town, rubbing may be performed by use of satisfactory power equipment and tools, providing that the operational procedures shall be the same as those outlined above for hand rubbing.

Rubbing will be kept to a minimum found necessary to produce smooth, even surfaces of uniform appearance. Rubbing will not be required to fill very small surface air bubble holes.

Patches required for form ties, if carefully and properly done, may not necessitate rubbing. If however, the work is done in such a way that the patches are conspicuous; the entire exposed face on which they occur shall be rubbed.

After the final rubbing is completed, and the mortar has set up, the surface shall be thoroughly drenched and kept wet with clean water for a period of five days, unless otherwise directed.

No rubbing will be permitted when the air temperature is below 40° F.

Concrete Sealant shall be applied as required per the manufacturer's recommendations. Concrete sealant shall be applied to all deck surfaces, walls, and exposed concrete. Should temperatures during construction not be sufficient to apply concrete sealant per manufacturers recommendations, the contractor shall comeback at a later date, prepare the concrete surface per the manufacturer's recommendations, and apply the sealant. Concrete surface preparation shall include a minimum of power washing all new concrete surfaces.

CONCRETE CURING AND PROTECTION

All concrete shall be properly cured and protected in accordance with ACI 308. Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Protect unhardened concrete from rain and running water. Do not expose concrete to the action of salt and brackish water for a period of seven days after placing the concrete.

Start initial curing as soon as free water has disappeared from concrete surface after placing and finishing. Keep continuously moist for not less than 7 days. Maintain concrete above 60 degrees Fahrenheit during first 7 days after placing.

Protect concrete from injurious action of the elements and defacement of any nature during construction operations.

Keep concrete in a thoroughly moist condition from the time it is placed until it has cured, for at least (7) days.

Carefully protect exposed concrete corners from damage.

Allow no concrete to become dry at any time until curing operations are complete. In general, slabs and walls shall be cured with an approved curing compound; vertical surfaces shall be cured with an approved curing compound. Protect fresh concrete from drying winds, rain, damage, or spoiling. . Maintain curing for minimum of 28 days.

REMOVAL OF FORMS AND FALSEWORK:

Wood forms shall not be removed for at least 48 hours after concrete has been placed. Forms shall not be removed until the concrete has attained sufficient strength to insure stability.

Formwork not supporting weight of concrete, such as sides of walls, and similar parts of the work, maybe removed after cumulatively curing at not less than 60 degrees Fahrenheit for 96 hours after placing concrete, provided concrete is sufficiently hard to not be damaged by form removal operations, and provided curing and protection operations are maintained.

Form facing material may be removed 4 days after placement, only if shores and other vertical supports have been arranged to permit removal of form facing material without loosening or disturbing shores and supports.

RE-USE OF FORMS:

Clean and repair surfaces of forms to be re-used in work. Split, frayed, delaminated, or otherwise damaged form facing material will not be acceptable for exposed surfaces. Apply new form coating compound as specified for new formwork.

When forms are extended for successive concrete placement, thoroughly clean surfaces, remove fins and laitance, and tighten forms to close joints. Align and secure joint to avoid offsets. Do not use "patched" forms for exposed concrete surfaces.

Forms for architectural concrete shall not be reused if there is any evidence of surface wear and tear or defect which would impair the quality of the surface. Forms shall be thoroughly cleaned and properly coated before reuse.

Formwork for architectural concrete shall be observed continuously while concrete is being placed to insure that there are no deviations from desired elevation, alignment, plumbness. If during construction, any weakness develops and the falsework shows any undue settlement or distortion, the work shall be stopped, the affected construction removed if permanently damaged, and the falsework strengthened.

Defective Work:

All defective work disclosed after the forms have been removed shall be immediately removed and replaced. If dimensions are deficient, or if the surface of the concrete is bulged, uneven, or shows honeycomb, which in the opinion of the Town's Representative cannot be repaired satisfactorily, the entire section shall be removed and replaced at no cost to the Town.

Other work considered to be defective includes, but is not limited to, the following:

Concrete in which defective or inadequate steel reinforcement has been placed.

Concrete incorrectly formed, or not conforming to details and dimensions on the Drawings or with the intent of these documents, or the concrete surfaces of which are out of plumb or level beyond specified tolerances.

Concrete below specified strength.

Concrete containing wood, cloth, or other foreign matter, rock pockets, voids, honeycombs, cracks or cold joints not scheduled or indicated on the Drawings.

Otherwise not in accordance with the intent of the Drawings and Specifications.

METHOD OF MEASUREMENT

Measurement for ITEM 940.1 CAST-IN-PLACE REINFORCED CONCRETE SEAWALL shall be made by Contract Price Cubic Yard and shall be the volume of concrete used for concrete seawall based on the measurements and calculations by the Town's representative and verified by the countersigned ready mix concrete truck slips; as accepted by the Town.

Measurement for ITEM 940.2 CAST-IN-PLACE REINFORCED CONCRETE STAIRS shall be made by Contract Price Cubic Yard and shall be the volume of concrete used for concrete seawall based on the measurements and calculations by the Town's representative and verified by the countersigned ready mix concrete truck slips; as accepted by the Town.

BASIS OF PAYMENT

Payment for ITEM 940.1 CAST-IN-PLACE REINFORCED CONCRETE SEAWALL shall be by the Contract Price Cubic Yard, complete in place. This price and payment shall constitute full compensation for all supervision, survey, transportation, testing, labor, materials and equipment for the satisfactory installation of the complete concrete encasement of the existing masonry seawall including scuppers, weep drains, geotextile, excavation, backfill, crushed stone, gravel, compaction, construction joints, expansion joints, rebar, epoxy anchors, falsework, temporary supports, lifting, forming, finishing, dowels, galvanized reinforcing steel, mortars, grouts, inserts, anchors, steel plates, surface preparation, curing, attachments, joint sealants, compressible foam, bonding agent, concrete, patching of pavement, disposal, cleaning of existing seawall, and any incidentals necessary to complete the work specified herein and as shown on the Contract Drawings.

Payment for ITEM 940.2 CAST-IN-PLACE REINFORCED CONCRETE STAIRS shall be by the Contract Price Cubic yard, complete in place. This price and payment shall constitute full compensation for all supervision, survey, transportation, testing, labor, materials and equipment for the satisfactory installation of the concrete stairs and seawall complete in place including concrete stairs, concrete seawall, concrete landing, gravel, geotextile, compaction, falsework, temporary supports, lifting, forming, finishing, expansion joints, dowels, compressible foam, joint sealant, galvanized reinforcing steel, mortars, grouts, epoxy adhesives, inserts, anchors, steel plates, surface preparation, curing, attachments, , excavation, backfill, and disposal and any incidentals necessary to complete the work specified herein and as shown on the Contract Drawings.

PAYMENT ITEM

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>UNIT</u>
940.1	CAST-IN-PLACE REINFORCED CONCRETE SEAWALL	C.Y.
940.2	CAST-IN-PLACE REINFORCED CONCRETE STAIRS	C.Y.

*****END OF SECTION*****

ITEM 975**HANDRAILS****DESCRIPTION**

The work under this item includes furnishing all materials, equipment and labor necessary to install all handrails, bolts, nuts, washers, anchors, plates and other metal items necessary to perform the work as shown on the Contract Drawings, specified herein and as directed by the Department.

Related Work in Other Sections

940.2 CAST-IN-PLACE REINFORCED CONCRETE STAIRS

MATERIALS

Steel pipe shall conform to ASTM A53 Grade B, unless otherwise noted. All welded wire shall conform to ASTM Specification A-1064. Welding rods shall conform to AWS E70XX grade. Sizes shall be as indicated on the drawings.

Bolts conform to ASTM A307-78 and shall be supplied with nuts and washers. Plates for washers and fender mounting brackets shall be fabricated of A36-77a steel.

All steel items under this section shall be galvanized. Galvanizing shall be by the hot dip method according to ASTM Specifications A-123 and A-153. All fasteners including but not limited to: Bolts, Lag Screws, Drift Pins, Expansion Anchors & Machine and eye bolts shall conform to ASTM A307, Gr. A for Mild Steel Bolts unless otherwise noted on drawings.

Epoxy adhesive shall be RE500 V3 as manufactured by Hilti, or approved equal.

SUBMITTALS

The Contractor shall submit to the Town, shop drawings of the proposed handrails. Shop drawings shall include the size and weight of proposed steel items. The shop drawings shall be approved prior to any steel being ordered.

FABRICATION

Fabrication shall conform to AISC Specification for the Design, Fabrication and Erection of Structural Steel for Buildings. Fabricate products in a fully-equipped facility capable of producing high grade of metal fabrication work. All work shall be straight and true, free from warpage and other defects. Joints, covers, copes and miters shall be accurately and neatly cut, machined, filed and fitted. Workmanship shall be equal to standard commercial practice.

All steel will be free from imperfections, dirt, loose scale, paint, oil or other foreign substances. All welds shall be made watertight. All materials shall be clean and straight. Each assembly shall be accurately fabricated to the lines and dimensions called for and shall be free from undue twists, bends, warping, distortion and other irregularities. All material shall be fabricated to within + or - 1/8 inch of their theoretical dimensions as shown on the drawings.

Holes for bolts shall be located as shown on the drawings and shall be drilled 1/16 inch in diameter larger than the galvanized bolt.

INSTALLATION

Handrails are to be installed in the new concrete walls as shown on the plans and as directed. Manufacture’s recommendation for installation shall be adhered with. All epoxy requirements shall be as shown under the concrete stair section. All drilling shall be as required to secure the handrails.

Store materials on skids, not on ground, in such a fashion as to prevent bending, twisting or similar damage. Do not dump steel off truck.

Installation shall conform to AISC Specification for the Design, Fabrication and Erection of Structural Steel for Buildings. Parts covered by this specification shall be installed in the work as shown on the drawings. No cutting or burning of steel shall be done to install fasteners without approval of the Engineer.

Epoxy anchors shall be installed per the Manufacturers recommendations. All holes shall be prepared per the Manufacturers recommendations.

DEFECTIVE WORK

Any parts damaged or improperly fabricated shall be removed and replaced or corrected as directed by the Engineer and at no additional cost to the Owner.

Method of Measurement

ITEM 975 HANDRAILS shall be measured as a lump sum based on the Contractors submitted and approved schedule of values.

Payment

Payment for ITEM 975 HANDRAILS shall be by the Contract Price Lump Sum. This price and payment shall constitute full compensation for all labor, equipment, materials, testing, transportation, survey and supervision for the satisfactory supply and installation of all items under this section and shall include all work materials; and any other incidentals necessary to complete the work specified herein and as shown on the Contract Documents.

PAYMENT ITEM

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>UNIT</u>
975	HANDRAILS	L.S.

END OF SECTION